Appendix 2.5C—Geotechnical Investigation and Laboratory Testing Data Report – COL

Prepared by
MACTEC Engineering and Consulting, Inc.

November 16, 2007

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DATA REPORT

RESULTS OF GEOTECHNICAL EXPLORATION AND LABORATORY TESTING
VOGTLE UNITS 3 & 4 COL PROJECT
VOGTLE ELECTRIC GENERATING PLANT

Waynesboro, Burke County, Georgia
November 9, 2007

Prepared By:

MACTEC ENGINEERING AND CONSULTING, INC

ATLANTA, GEORGIA

MACTEC PROJECT NUMBER 6141-06-0286

Submitted To:

GEORGIA POWER COMPANY
c/o SOUTHERN NUCLEAR OPERATING COMPANY

Birmingham, Alabama

SNC SUBCONTRACT NUMBER 7074425

DCN VGCOL 324
Revision 3, 11/9/07

MACTEC

November 9, 2007

Mr. Tom McCallum
Georgia Power Company
C/O Southern Nuclear Operating Company, Inc.
40 Inverness Center Parkway
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Birmingham, Alabama 35201
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Subject: **Geotechnical Data Report**
Vogtle Units 3 & 4 COL Project
Vogtle Electric Generating Plant
Burke County, Georgia
MACTEC Project Number 6141-06-0286

Dear Mr. McCallum:

MACTEC Engineering & Consulting, Inc. is pleased to submit this Data Report for the geotechnical exploration and laboratory testing for the Vogtle Units 3 & 4 COL Project located adjacent to the existing Vogtle Electric Generating Plant near Waynesboro, Burke County, Georgia.

It has been a pleasure to perform the work described in the attached report. If you have any questions, or if we may be of further service, we hope that you will contact us at your convenience.

Sincerely,

MACTEC ENGINEERING & CONSULTING, INC.

Matthew F. Cooke
Site Superintendent WITH PERMISSION
Senior Geologist
Registered, Georgia 1887

Wm. Allen Lancaster
Project Manager BY KLB WITH PERMISSION.
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DCN VGCOL 324
Revision 3, 11/9/07

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List of Attachments (Submitted under Separate Covers on Various Dates)

Attachment	Revision Number	Submittal Date	Attachment Title
A	1	July 31, 2007	Survey Data and Test Locations
B	3	November 9, 2007	Geotechnical Boring Logs, Geotechnical Test Pit Logs, and SPT Energy Ratio Measurements
C	0	May 31, 2007	Cone Penetrometer Test Results
D	0	May 31, 2007	Geophysical Test Data (Downhole), Field Electrical Resistivity
E	0	May 31, 2007	ReMi Seismic Shear Wave Velocity Measurements
F	3	November 9, 2007	Laboratory Testing Data (Geotechnical)
G	0	To Be Determined	Resonant Column Torsional Shear (RCTS) Test Results

LIST OF ACRONYMS, SYMBOLS AND TERMINOLOGY

AP1000	Nuclear Technology by Westinghouse Electric Company
ASTM	American Society for Testing and Materials
Bechtel	Bechtel Power Corporation
bpf	blows per foot
c	total cohesion
c’	effective cohesion
C’	bearing capacity index
C_c	compression index
C_e	SPT Energy Ratio to ER=60%
CD	consolidated drained triaxial test
cf	cubic feet
CH	highly plastic clay
CL	clay of low plasticity
C_n	vertical effective stress correction factor for SPT-N
COC	Chain of Custody
COE	Corps of Engineers
COL	Combined Construction and Operating License
CPT	cone penetration test sounding (used in lieu of SCPTU or CPTU where distinction is not important)
CPTU	piezocone penetration test sounding
C_r	recompression index
CU	consolidated undrained triaxial test
Cv	coefficient of consolidation

D_{50}	mean grain size
DCC	Document Control Center
DCN	Document Control Number
DOE	Department of Energy
D_r	relative density
EPA	Environmental Protection Agency
ER	Energy Ratio for Standard Penetration Test
e_o	initial void ratio
fps	feet per second
fr or FR	CPT friction ratio
fs	CPT sleeve stress (also called sleeve friction)
FS	factor of safety
ft	foot or feet
g	acceleration of gravity
G	shear modulus
GPS	Global Positioning System
gINT	Geotechnical Data presentation Software provided by gINT, Inc.
G_{max}	low strain shear modulus
GW	groundwater table or groundwater depth
H	layer thickness
HSA	hollow stem auger
K	soil permeability coefficient (hydraulic conductivity)
K_a	active earth pressure coefficient
K_d	Distribution Coefficient
K_o	at-rest earth pressure coefficient
K_p	passive earth pressure coefficient
kip	1,000 pounds
km	kilometer
ksf	kips per square foot
LL	liquid limit
LL	Live Load, force or pressure
m/sec	meters per second

MACTEC	MACTEC Engineering and Consulting, Inc. f/k/a LAW
MH	high plasticity silt
micaceous	containing mica
ML	low plasticity silt
mm	millimeter
MOD	modified
MSL	mean sea level, ft
M&TE	Measuring and Test Equipment
N-value	Sum of second and third set of recorded blows from the SPT
N60, N_{60}	SPT N-value corrected to 60 percent energy ratio (ER)
N_1	SPT N-value normalized to 1 tsf
$(N_1)_{60}$	SPT N-value normalized to 1 tsf and 60% max. hammer energy ratio (also modified to account for room for liner but no sample liner used for Project)
NIST	National Institute of Standards and Technology
NRC	Nuclear Regulatory Commission
MDD	maximum dry density, pcf (laboratory compaction test)
OCR	overconsolidation ratio
OD	outside diameter
OMC	optimum moisture content, % (laboratory compaction test)
OW	Observation Well
P	P-wave, compressional seismic wave
P	Pitcher Samples (UD, Soil Sampling)
p - q	total stress path strength parameters
p' - q'	effective stress path strength parameters
pH	Index of acidity
p_c or P_c	preconsolidation pressure (also called σ_c')
p_o or P_o	existing vertical effective stress (also called σ_o')
pcf	pounds per cubic foot
pci	pounds per cubic inch
PDA	pile driving analyzer
PI	plasticity index
PL	plastic limit

Pitcher	Pitcher Sampler (Undisturbed (UD) soil sampling, also see ST)
psf	pounds per square foot
psi	pounds per square inch
QA	quality assurance
QAPD	Quality Assurance Project Document
QAR	Quality Assurance Representative
Q_a	allowable bearing pressure
q_c or Q_c	measured CPT tip resistance
$Q_{t,,}$ q_{NT}	normalized CPT tip resistance $Q_t = (q_t-\sigma_{vo})/ \sigma'_o$
$q_{t,,}$ qT	CPTU tip stress corrected for unequal area effects
$(q_c)_1$	CPT tip resistance normalized to 1 ton per square foot
QC	quality control
RC	Relative Compaction
RCTS	Resonant Column Torsional Shear (Laboratory Test)
REC	Recovery (SPT Samples, UD Samples)
ReMi	Refraction Microtremor Testing
r_u	pore water pressure ratio = $\Delta u/\sigma_0'$
SC	clayey sand
SCPTU	seismic piezocone penetration test sounding
slickenside surface	parting surface in sample with particles oriented parallel to surface, giving shiney appearance
SM	silty sand
SNC	Southern Nuclear Operating Company, Inc.
SP	poorly graded sand
SPT	Standard Penetration Test
Specification	1) SNC Technical Specification AR01-0000-XGS-2001, Version 1.0, Issued 9/20/06 Subsurface Investigation and Laboratory Testing.
SRP	Standard Review Plan
ST	Shelby tube (undisturbed (UD) soil sampling)
STD	standard
STDEV	standard deviation (also known as σ)
S_u	undrained shear strength
t	time

TP	Test Pit
tsf	tons per square foot
TX	triaxial
UD	undisturbed (soil sampling, either ST (Shelby Tube), pushed or P (Pitcher Sample), drilled
US	United States
USCS	Unified Soil Classification System (e.g. SM. SC, etc.)
USNRC	U. S. Nuclear Regulatory Commission
UU	Unconsolidated Undrained Triaxial Test
VEGP	Vogtle Electric Generating Plant
v_s	S-wave velocity (Shear wave velocity)
$(v_s)_1$	S-wave velocity normalized to 1 ton per square foot
WI	Work Instruction
WC or W	water content (moisture content)
α	total stress path angle
α'	effective stress path angle
ε or γ	normal strain or shear strain
ε_r or γ_r	reference strain
ϕ	total stress friction angle
ϕ'	effective stress friction angle
γ	unit weight of soil
γ_s	saturated unit weight of soil
γ'	effective or buoyant unit weight of soil, γ_s - γ_w
γ_w	unit weight of water
ρ	mass density of the soil
σ	standard deviation
σ_1, σ_3	principal normal stresses
σ_c'	preconsolidation pressure
σ_o'	initial effective vertical stress
σ_v'	effective vertical stress
σ_{vo}	initial total vertical stress
τ	shear stress

υ	Poisson's ratio

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Table 1	Organizations Performing Work at the Site or in the Laboratory
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Table 5	Summary of Soil Tests (Table F-1, Attachment F)

SECTION 1
OVERVIEW

1.1 INTRODUCTION

MACTEC Engineering and Consulting (MACTEC) was retained by Georgia Power Company by and through its agent Southern Nuclear Operating Company (SNC) to conduct a geotechnical exploration and associated laboratory testing at the Vogtle Units 3 & 4 COL Project Site. The site is located adjacent to the existing Vogtle Electric Generating Plant (VEGP) near Waynesboro, Burke County, Georgia. MACTEC executed these services per SNC Subcontract Number 7074425.

The geotechnical services were completed as part of the combined construction and operating license (COL) project for SNC. The field work commenced on November 7, 2006 and was substantially completed on April 20, 2007.

The Scope of Work was defined in Section 1.0 of the Technical Specification, SNC Technical Specification AR01-0000-XGS-2001, Version 1.0, Subsurface Investigation and Laboratory Testing. The scope of work is briefly described below:

- Prepare and submit a quality plan (Quality Assurance Project Document).
- Submit a qualified Safety Program.
- Submit a Work Plan.
- Provide quality assurance inspectors (surveillance) of the field and laboratory work activities.
- Perform a utility location survey using one or more approved method at each exploration point prior to starting work.
- Obtained necessary permits to accomplish work.
- Drill geotechnical borings at locations specified by Bechtel, adjust as necessary and as approved by Bechtel's representatives to accommodate access and utility conflicts. Geotechnical borings were completed at locations identified in Tables 2A and 2B.
- Conduct Standard Penetration Testing (SPT) to obtain samples of soil and undisturbed sampling of soil as directed by Bechtel field representatives.
- Prepare field logs for all drilling and sampling and transfer all samples to a secure, on-site sample storage facility, provided by SNC.
- Seal all boreholes by grouting.
- Perform electronic cone penetrometer tests (CPT) in 21 locations; perform down-hole seismic tests; perform pore pressure dissipation tests at locations selected by Bechtel. The CPT numbers are identified in Tables 2A and 2B.
- Perform down-hole geophysical logging in 6 locations.
- Perform suspension P-S velocity logging in 6 locations
- Perform four pole field electrical resistivity tests along ten arrays. These are identified on Tables 2A and 2B
- Perform Refraction Microtremor Testing along four arrays. These are identified in Tables 2A and 2B.
- Excavate test pits at 8 locations determined by Bechtel. Obtain bulk samples of the excavated material as directed by the Bechtel field representative. The center of each test pit is identified in Tables 2A and 2B.
- Conduct laboratory testing on soil samples as assigned by Bechtel.

The work was completed under a Quality Assurance Program meeting the Code of Federal Regulations 10CFR50, Appendix B and conforming to the provisions of ANSI/ASME N45.2-1977.

This Data Report describes the field and laboratory testing methods and presents the results.

1.2 PERSONNEL

All work to prepare this report was performed by MACTEC with assistance from SNC in providing office space, office facilities, and sample storage facilities located in the Plant Vogtle Administration Support Building (November through about February) and at the former Vogtle Security Building (February through April). Both of these facilities are located on Plant Vogtle property and are near the proposed Units 3 & 4 Site. After MACTEC completed its work at the site, the soil jar samples were placed in a locked, 40-foot metal storage container located adjacent to the former Vogtle Security Building. Undisturbed samples were stored in a climate controlled room in the former Vogtle Security Building. Upon the completion of field work, all undisturbed samples were transported to the MACTEC Atlanta laboratory. The logistical assistance and White Badge training sessions given to numerous MACTEC and subcontractor personnel provided by Mr. Greg Lee are gratefully acknowledged. Bechtel site representatives during the field work were Mr. Mohab Sabry, Mr. Sami Jabbour, and Mr. Gerald Lefevre. Jose Clemente and John Damm of Bechtel were on site several times during the field work. MACTEC personnel and their responsibilities were:

Wm. Allen Lancaster, P.E., Project Manager
Pieter J. Depree, P.E., Principal Geotechnical Engineer
Matthew F. Cooke, Senior Geologist, Site Superintendent (Site Coordinator)

Rig Geologist/Engineers:

Daniel Atkinson	Dustin Brooks	Christopher Bruce
Rodney Clark	Luke Davis	Chris Gandy
Mandel Harvey	Martha Herrera	Bill Mabie
Gautham Pillappa	Adria Reimer	Bill Sharp
Alexandra Taylor	Stephen Woodham	

Christopher J. Gaskins, Senior Geotechnical Professional, ReMi Testing
Daniel J. Powell, Project Professional, ReMi Testing
Jeremiah Harmon, Staff Geotechnical Professional, ReMi Testing
Alexandra Taylor, Engineer, supervised preparation of gINT Boring Logs
Bill Sharp, Geologist, assisted in preparation of Data Report
Scott Towe, Drilling Manager
James Lane, Geotechnical Laboratory Group Leader
Harry Johnson, Geotechnical Laboratory Manager
John Jedrosko, Quality Assurance Representative
John E. Lynch, Quality Assurance Manager

The organizations that performed on-site work or laboratory testing of samples as part of this effort are listed in Table 1.

1.3 ORGANIZATION OF REPORT

This report and its attachments are organized in the following sequence; this report consists of the transmittal letter; table of contents; list of tables; list of figures; acronyms, symbols and terminology; text; tables; and figures. The attachments are in separate volumes submitted on various dates and are as follows:

Attachment	Contains
A	Survey Data and Test Locations
B	Geotechnical Boring Logs, Geotechnical Test Pit Logs, and SPT Energy Ratio Measurements
C	Cone Penetrometer Test Results
D	Geophysical Test Data (Downhole), Field Electrical Resistivity
E	ReMi Seismic Shear Wave Velocity Measurements
F	Laboratory Testing Data (Geotechnical)
G	Resonant Column Torsional Shear (RCTS) Test Results

The current revision status and date of the Attachments are summarized in the Table of Contents. Revision 2 of Attachment B was issued for internal review and comment only. Revision 3 of Attachment B is being issued for the COL application. Revision 3 of Attachment B contains changes to the boring logs previously submitted. Depictions of changes are difficult to illustrate on the boring logs, therefore, a Log of Revisions to Geotechnical Boring Logs is provided in Attachment B. The changes to the logs were made to clarify material descriptors of the various strata. Engineering personnel from MACTEC and Bechtel reviewed the soil samples from the borings stored on site and provided the basis for the changes.

Revision 2 of Attachment F was issued for internal review and comment only. Revision 3 of Attachment F provides the results of the completed laboratory testing program, excluding data from a forthcoming Addendum and RCTS testing. Revision 3 of Attachment F is being issued for the COL application. Previous revisions of Attachment F (Revisions 0 and 1) contained an incomplete data set.

1.4 QUALITY ASSURANCE

Quality related activities performed by MACTEC and its subcontractors organizations during the work herein presented were in accordance with the MACTEC Quality Assurance Manual and the MACTEC Quality Assurance Project Document. The MACTEC QA program complies with NQA-1 Subpart 2.20 and to the requirements of 10CFR50 Appendix B.

SECTION 2
TEST METHODS

2.1 SURVEYING

The Surveyor was Toole Surveying Company, Inc. of Augusta, Georgia under direct subcontract to SNC.

The surveying for the project was conducted in two phases. The initial phase was to complete ("stake") the preliminary boring layout based on initial coordinates for test locations provided by the Specification drawings prepared by Bechtel (Drawings 23162-0-CY-0000-00001 and 23162-0-CY-0000-00002, latest revisions). After completing an initial assessment of test locations and potential utility and access conflicts, relocation of some borings were proposed by MACTEC field personnel and approved by Bechtel. The relocated borings were referenced to the staked locations left by Toole Surveying and were tabulated by MACTEC.

Several of the test locations were initially field located by MACTEC, as authorized by Bechtel using a hand-held GPS unit, and/or using a survey tape and a compass to measure from existing known points or other landmarks.

Some of the boring locations required bulldozer clearing to remove vegetation and/or to level the surface for drilling access. The stake marking the location was referenced to offset witness points outside the area to be disturbed, and then re-established after the access was completed. Some locations required multiple holes to be drilled due to drilling difficulties or for SPT energy testing. In all cases, a marked stake was placed in the grouted, abandoned hole to mark the as-drilled location.

The second phase of surveying was performed after the completion of drilling. The surveyor returned to the site and determined the locations and elevations of the actual, as drilled boring and test pit locations. This information is contained in Tables 2A and 2B. Full details are contained in Attachment A.

2.2 UTILITY LOCATION

Utility location was performed by GEOVision, a subcontractor to MACTEC. Prior to the start of, and during the surveying, MACTEC and GEOVision reviewed the available utility drawings of the site area provided by SNC. Utility surveying was performed within a 10 foot radius of most of the exploration points using the following geophysical equipment:

- GSSI SIR 3000 Ground Penetrating Radar with 400 MHz Antenna
- Ditchwitch Subsite 950R Electromagnetic Utility Locator
- Metrotech 810 Electromagnetic Utility Locator
- Fisher TW-6 Deep Search Pipe Locator/Metal Detector

In general, the utility location procedures consisted of the following for each location:

- Visually inspect the area surrounding each location for evidence of subsurface utilities (maholes, valve boxes, etc.).
- Delineate the surface trace of identified utilities and mark their surface trace using a color code established by the American Public Works Association.
- Scan the target area with an 8 KHz signal connected directly to water and/or electric to identify any utilities that the signal bleeds into.

- Scan the site with the utility locator in passive 60 Hz and Radio modes to locate any active electrical lines not already located.
- Screen the clearance area using the Fisher TW-6 to identify abandoned conduits that have no surface expression.
- Conduct perpendicular GPR traverses throughout the target area tracing any additional pipes/cables encountered.
- Hold the Metrotech 810 transmitter over the target and circle at an approximate 40-foot radius tracing and marking any additional pipes/cables encountered.
- Daily Field Summaries and sketches showing the utilities encountered at each location and any recommended exploration point offset were prepared and submitted to the MACTEC Site Superintendent.

Utility survey as described above was not performed in some locations. These locations included undisturbed wooded areas where there was no evidence to indicate that underground utilities might exist. In all cases where utility survey was not performed, MACTEC and/or SNC's site representative reviewed the available utility drawings and obtained approval from SNC prior to drilling.

2.3 DRILLING EQUIPMENT/METHODS

Drilling equipment mobilized to the site included the following:

Hammer Serial Marker	Owner	Drill Rig	Driller	Drill Rod Type (1)
100	MACTEC	Dietrich D-50	Gary Skoglund	AWJ
165952	Gregg Drilling	CME-850	Marshall Burnett	NWJ/AWJ
200587	MACTEC	CME-75	Tony Christian	NWJ
211797	MACTEC	CME-75	Jimmy Warren	NWJ
219505	MACTEC	CME-55	Wayne Melvin	N3
219907	MACTEC	CME-75	Jimmy Oglesby/John Rosser	N3
270256	Miller Drilling	CME-85	Glen Bilbrey	NWJ
311025	Gregg Drilling	CME-55	Brian Giesecke	NWJ
328848	AE Drilling	CME-750	Kevin ("KW") Warren	NWJ
331145	MACTEC	CME-55LC	David White	AWJ
337153	MACTEC	CME-550	Robert Banks	AWJ
X02958	Gregg Drilling	Fraste Multidrill XL	Bill Poole/Marshall Burnett	NWJ
N/A	Gregg Drilling/Gregg In-Situ	20Ton CPT Track-Mounted	Aguilar	N/A (CPT Rig)

(1) AWJ rod is approximately 1.75" O.D., N3 Rod is approximately 2.375" O.D., NWJ rod is approximately 2.625" O.D.; N/A = Not applicable; CPT = Cone Penetration Test

In addition, rubber-tired highway-type water tanker trucks were utilized to haul water for the drill rigs from the on-site water source. Initial site access clearing was performed by Vernon Wallace under subcontract to SNC using a DC8 bulldozer. Mr. Wallace also visited the site several times during the course of the project to perform additional clearing as needed.

A John Deere Model 310G rubber-tired backhoe/front-end loader from Hertz Equipment Company was leased by MACTEC and used for minor clearing and other miscellaneous loading and unloading tasks during the course of the project.

Borings were advanced in soil using mud rotary wash drilling techniques, with the exception of one boring, B-3002A, which was drilled using hollow stem augers for SPT Energy Test purposes. Water used for drilling at the majority of the boring locations was obtained from an on-site potable water supply discharge point. Water used for drilling in floodplain areas near the Savannah River was pumped directly from the river to the drill rigs.

Temporary flush-threaded steel casing (3 or 4 inch size) was installed to various depths in many of the boreholes due to drilling fluid circulation loss and/or borehole cave-in. The temporary steel casing was removed upon completion of the borehole. Permanent steel (6-inch threaded and coupled) and PVC (6-inch flush threaded) casing was installed and grouted in-place in several boreholes in which geophysical testing and/or undisturbed sampling using the Pitcher rotary sampler was performed.

All boreholes and the grouted-in PVC and steel casings plus the CPT locations were filled prior to demobilizing from the site using a cement-bentonite grout. The grout was placed by pumping through a tremie pipe. The grout mixture in Specification Section 3.3.13 (approximately 8 gallons of water and 2.5 pounds of bentonite per 94 pound sack of cement) was used. As requested by SNC, boreholes in which permanent steel or PVC casing was installed were left approximately two feet above ground, capped, and painted bright orange.

2.4 SPT ENERGY MEASUREMENTS

SPT energy measurements were made on the drill rigs performing standard penetration testing (SPT). Energy measurements were recorded during sampling at the depth intervals shown in the SPT Energy Ratio Measurement Reports in Attachment B. The length of the drill rod string, including the instrumented drill rod insert for each sample was generally 4 feet longer than the depth of the sample being collected.

The energy measurements were performed with a Pile Driving Analyzer (PDA) model PAK and calibrated accelerometers and strain gages. A section of appropriately sized drill rod, 2 feet long and instrumented with dedicated strain gages, was inserted at the top of the drill rod string immediately below the SPT automatic hammer. The inserted rod was also instrumented with two piezoresistive accelerometers that were bolted to the outside of the rod.

The work was done in general accordance with ASTM D 4633-05. The strain and acceleration signals were converted to force and velocity by the PDA, and the data was interpreted by the PDA according to the Case Method equation. The EFV method of energy calculation is recommended in ASTM Standard D4633-05. The maximum energy transmitted to the drill rod string (as measured at the location of the strain gages and accelerometers) was calculated by the PDA using the EFV method equation, as shown below:

$$EFV = \int F(t) * V(t) * dt$$

Where: EFV = Transferred energy (EFV equation), or Energy of FV
F(t) = Calculated force at time t
V(t) = Calculated velocity at time t

The EFV equation, integrated over the complete wave event, measures the total energy content of the event using both force and velocity measurements. The EFV values associated with each blow analyzed were tabulated and averaged to obtain the average measured energy at each depth tested. The ratio of the average measured energy to the theoretical potential energy of the SPT system (140 lb weight with the specified 30 inch fall) is the ETR.

The ETR range of the automatic hammers used at the site is 70.1% to 90.2% of the theoretical potential energy. These ETR values are within the range of typical values for automatic hammers. The ETR values (as percent of the theoretical value) are shown in the SPT Energy Ratio Measurement Reports in Attachment B.

2.5 SAMPLING IN GEOTECHNICAL BORINGS

2.5.1 Standard Penetration Test Sampling (SPT)

Soil sampling in the borings using the SPT was conducted at intervals of 2.5 feet within the upper 15 feet and thereafter at 5 to 10 foot intervals using equipment and methods described in ASTM D 1586. For one boring in each Power Block area, the 2.5 ft sample interval was used to the full depth of the boring to accomplish continuous sampling. Automatic Hammers were used to perform the SPT tests. The sampler was typically driven 18 inches in soil with the number of hammer blows recorded for each six inch interval of penetration. In very hard soils, the test was terminated at 50 blows and the actual penetration recorded, (e.g., 50 blows / 3 inches).

The split tube sampler was opened at the drill site and the recovered materials were visually described and classified by MACTEC's rig geologist or engineer. A selected portion of the sample (typically the material for the lower portion of the sample) was placed in a glass sample jar with a moisture proof lid. Sample jars were labeled, placed in cardboard boxes, and transported to the on-site storage area.

2.5.2 Undisturbed Sampling

Undisturbed soil samples were taken when directed by Bechtel, using a 3-inch diameter thin-walled tube sampler in accordance with ASTM D 1587.

When subsurface material was too dense or hard to allow satisfactory samples to be recovered by pushing the tube sampler into the material using the drill rig hydraulics, a Pitcher sampler was used where requested by Bechtel. The Pitcher is a rotary sampler that drills the 3-inch diameter tube into the subsurface material. All undisturbed samples were sealed at the top and bottom against moisture loss, labeled, kept in an upright condition and transported to the climate-controlled on-site storage area following ASTM D4220.

2.6 BORING LOGS

The soil description on the boring logs in Attachment B are based on the field descriptions (ASTM D 2488) by the rig geologist or engineer, modified according to ASTM D 2487 where lab test results are

available. The water depths on these boring logs are from observations during drilling. Because water was introduced during rotary and core drilling, the water depths on the boring logs may not represent the stabilized water depths. The boring logs in Attachment B were prepared using the computer program "gINT" (Version 7). Electronic files with gINT data were provided with Attachment B.

2.7 SAMPLING IN GEOTECHNICAL TEST PITS

Test pits were excavated at eight locations identified by Bechtel (field-located). A track-mounted backhoe (Caterpillar 315L) was used to excavate the pits. The Bechtel field representative selected the materials to be sampled. A MACTEC rig geologist or engineer collected the bulk samples. As approved by Bechtel, the bulk samples were placed in new 5-gallon plastic buckets with handles for carrying. Two buckets of each sampled material were obtained. Glass jar samples were also obtained and sealed for moisture retention. The backhoe was used to backfill the test excavation using the excavated materials. The backfilled materials were tamped in-place using the backhoe. The rig geologist or engineer placed a stake for later survey location.

The buckets and jar samples were labeled and transported to the on-site storage area. The rig geologist or engineer prepared a Geotechnical Test Pit Log based on visual description of the excavated materials according to ASTMD 2488. These descriptions were modified according to ASTM D 2487 where lab test results are available. The Geotechnical Test Pit Logs are included in Attachment B. The surveyed locations of the test pits are contained in Attachment A and Tables 2A and 2B herein.

2.8 CONE PENETOMETER TESTING

Locations for 21 Cone Penetrometer Tests, (CPT) were included in the original scope of work for this project. Specified probe depths were to a depth of 120 feet or to refusal, whichever came first. Refusal is defined as reaching the full thrust loading capable of being applied by the CPT vehicle or to a thrust condition that if exceeded would (in the opinion of the CPT Supervisor) potentially damage the cone or rods.

CPT testing was completed by Gregg In-Situ, Inc. (Gregg), a subcontractor to MACTEC. Gregg utilized a 20 ton self-contained rig mounted on a tracked ATV carrier to complete the work. Seismic testing was completed in eight of the CPTs at intervals of one meter. Pore pressure dissipation tests were performed in seventeen of the CPTs. All testing was done in accordance with project Specifications and ASTM 5778. The CPT Data is found in Attachment C.

2.9 BOREHOLE GEOPHYSICAL LOGGING

Downhole geophysical logging was performed in 6 borings as required by the Specifications. GEOVision, a MACTEC subcontractor, performed this work in accordance with ASTM D 5753. The results are found in Attachment D. The following downhole geophysical logs were performed in the selected borings.

2.9.1 Natural Gamma

Gamma logs record the amount of natural gamma radiation emitted by the soil and rocks surrounding the boring.

2.9.2 Long and Short Normal Resistivity

Normal-resistivity logs record the electrical resistivity of the borehole environment and surrounding rocks and water as measured by variably spaced potential electrodes on the logging probe. Typical spacing for potential electrodes are 16 inches for short-normal resistivity and 64 inches for long normal resistivity. Normal resistivity logs are affected by bed thickness, borehole diameter, and borehole fluid and can only be collected in water or mud filled open holes.

2.9.3 Three Arm Caliper

Caliper logs record borehole diameter. Changes in borehole diameter are related to boring construction, such as casing or drilling bit size, and to fracturing or caving along the borehole wall. Because borehole diameter commonly affects log response, the caliper log may be useful in the analysis of other geophysical logs.

2.9.4 Data

Data was recorded in digital format and are contained in Attachment D. Also contained in Attachment D are printouts of the geophysical logs and the associated lithology.

2.10 SUSPENSION P-S VELOCITY LOGGING

Suspension P-S velocity logging was performed in 6 borings as required by the Specifications. Compression (P) and shear (S) were velocity measurements were made at 1 meter intervals or less. Attachment D contains the results.

2.11 FIELD ELECTRICAL RESISTIVITY TESTING

Field electrical resistivity testing was performed along 10 arrays in the proposed switchyard, the 230 kV switchyard, the cooling towers, and the circulating water line areas of the site. The locations and array lengths were adjusted from those in the Specifications with approval of Bechtel due to topographic features, man-made obstructions, or extensive clearing requirements associated with the initial locations. The Wenner four electrode method was used to perform the tests in accordance with ASTM G57. Electrode spacing ranging from 3 feet up to 300 feet were used in order to determine the soil resistivity at increasing depths. The resistivity data interpreted from the tests are contained in Attachment D.

2.12 REFRACTION MICROTREMOR (REMI) TESTING

ReMi surveys were performed at four locations (arrays) at the site. The as-built coordinates for each array location are contained in Attachment A. The data was processed using SeisOpt® ReMi™ software to reveal a one-dimensional average shear-wave (S-wave) velocity structure up to a depth of 100 feet for each array per Work Instructions VGCOL 125, 126, 127, and 128. A report detailing the equipment used, the data acquisition and processing steps, and the results are included as Attachment E.

SECTION 3
SAMPLE STORAGE

3.1 ON-SITE SAMPLE STORAGE FACILITY

Consistent with MACTEC's QAPD Requirements, on-site sample storage facilities were established. The sample storage facilities were located in the Plant Vogtle Administration Support Building (November through February) and at the former Vogtle Security Building (February through April). Both of these facilities are located on Plant Vogtle property and are near the proposed Units 3 & 4 Site. During MACTEC's residence at the Administration Support Building, boxes containing disturbed jar samples were stored in numerical order on tables around the perimeter of a large meeting room which served as MACTEC's field office. Undisturbed samples were stored in an office located off of the large meeting room. The MACTEC work area within the Administration Support Building was locked daily and patrolled by Plant Vogtle Security.

MACTEC re-located to the former Vogtle Security Building in February 2007. At this facility, disturbed jar samples were moved to a lockable 40-foot metal storage container located adjacent to the old Vogtle Security Building. The undisturbed samples were stored upright in racks in a climate controlled room inside the former Vogtle Security Building. Plant Vogtle Gate #13, which leads to the former Vogtle Security Building, was locked nightly. The area was also patrolled frequently by Plant Vogtle Security personnel.

Samples were transported daily from the field to the sample storage area(s) by the rig geologists/engineers. SPT samples were transported as Group "B" samples in their compartmentalized cardboard boxes, each labeled to show the contents therein. The UD samples were transported according to ASTM D4220, Group C samples.

Since copies of the field boring logs were kept at the facility, their logs served as the sample inventory for the storage facility. A chain of custody form was completed for all samples removed from the facility.

3.2 LABORATORY SAMPLE STORAGE FACILITY

All of the undisturbed samples and disturbed jar samples selected for laboratory testing by Bechtel, were transported to the MACTEC laboratory in Atlanta, Georgia. The samples were transported in accordance with ASTM D4220 requirements for Group C (Undisturbed samples), and Group B samples (disturbed jar samples). The samples are stored in a lockable, climate controlled room within the MACTEC Atlanta laboratory.

SECTION 4
LABORATORY TESTING - GEOTECHNICAL

Laboratory testing was performed on disturbed, undisturbed, and remolded soil samples obtained during the subsurface investigation. All testing was performed in accordance with ASTM standards or other standards where applicable. Selection of the samples to be tested and the tests to be performed on the samples were made by Bechtel. Bechtel provided thirteen separate Geotechnical Laboratory Test Assignment Sheets. The assignment sheet number (designated by MACTEC) and the final Bechtel revision date are tabulated below.

Laboratory Test Assignment Number	Date of Final Lab Assignment Revision by Bechtel
1	December 4, 2006
2	February 14, 2007
3	February 1, 2007
4	April 16, 2007
5	April 16, 2007
6	February 15, 2007
7	March 12, 2007
8	March 31, 2007
9	April 16, 2007
10	May 4, 2007
11	April 26, 2007
12	May 18, 2007
13	July 13, 2007

The laboratory personnel determined that some of the initially assigned tests on soil samples could not be performed due to insufficient sample volume, laboratory equipment constraints, or other reasons. In these cases, the information was reported to Bechtel who issued a revised laboratory assignment sheet deleting, modifying, or assigning replacement tests on other samples.

Testing of soil samples, except for chemical tests and resonant column torsional shear (RCTS) testing, was performed in MACTEC's laboratories in Atlanta, Georgia, and Charlotte, North Carolina.

Chemical testing for pH, sulfates and chlorides in selected soil samples as assigned by Bechtel was performed by Severn Trent Laboratories, Inc. (STL), a subcontractor to MACTEC.

Resonant Column Torsional Shear (RCTS) testing of soil samples as assigned by Bechtel are being conducted by the Fugro Consultants laboratory in Houston, Texas, a subcontractor to MACTEC, under the technical overview of Dr. K.H. Stokoe of the University of Texas. The tests on the samples selected for RCTS testing, including the classification tests on these samples, when completed will be presented in Attachment G.

Excluding the RCTS tests, the following tests were assigned and performed. The results are presented in Attachment F.

4.1 IDENTIFICATION TESTS

- Moisture content, ASTM D 2216-05
- Atterberg limits, ASTM D 4318-05
- Sieve and hydrometer analysis, ASTM D 422-63 (2002) and ASTM D 6913-04
- Specific gravity of soil, ASTM D 854-06
- Chemical analysis, (pH, Chloride, Sulfate) EPA SW846 9045C and EPA MCAWW 300.0A
- Unit weight of soil, ASTM D 5084-03 (Sections 5.7 – 5.9. 8.1, 11.3.2)

4.2 COMPRESSIBILITY TEST

- Consolidation tests, ASTM D 2435-04

4.3 COMPACTION AND STRENGTH TESTS

- Unconsolidated-undrained triaxial compression, ASTM D 2850-03
- Consolidated – undrained triaxial compression, ASTM D 4767-04
- Direct shear – Soil, ASTM D 3080-04
- Moisture-density, ASTM D 1557-02

4.4 REPORTING

The laboratory test reports, with a few exceptions, consisting of individual test data and results sheets as required by the testing standard, are contained in Attachment F. A summary of the test results on soil samples in Attachment F is found in Table 5 of the Data Report, which is Table F-1 of Attachment F.

The exceptions noted above include the RCTS tests, some direct shear tests, and carbonate content tests with associated index testing. The RCTS tests, including the data and report reviewed by Dr. K. H. Stokoe, when completed will be found in Attachment G. The classification tests on the RCTS tests, when completed will also be found in Attachment G. The additional direct shear tests, and carbonate content tests with associated index testing when completed will be found in an Addendum to Attachment F.

4.5 DESCRIPTIONS

Brief descriptions of the tests performed are contained in Attachment F.

SECTION 5
RCTS TESTING OF SOIL

Resonant Column - Torsional Shear (RCTS) testing of soil samples assigned by Bechtel is being performed by Fugro Consults of Houston, Texas. The results will be reviewed by Dr. K.H. Stokoe of the University of Texas, Austin. These test results as well as the classification tests for the undisturbed samples upon which RCTS testing is performed, when completed will be contained in Attachment G.

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Organization	Function
MACTEC Engineering and Consulting, Inc.	USCS Soil Classification (ASTM D 2488); QA Surveillance; SPT sampling; Undisturbed Sampling; Bulk Sampling; borehole abandonment; Geotechnical Laboratory Testing; SPT Energy Measurement on Drill Rigs of MACTEC and Subcontractors, ReMi Testing
Gregg Drilling and Testing, Inc./Gregg In-Situ, Inc.	SPT Tests; Undisturbed Sampling; CPT Tests; borehole abandonment
AE Drilling Services, LLC	SPT Tests; Undisturbed Sampling; borehole abandonment
Miller Drilling Company, Inc.	SPT Tests; Undisturbed Sampling; borehole abandonment
Graves Environmental and Geotechnical Services, Inc.	Steel Casing Installation, borehole abandonment, excavation of test pits
GEOVision	Downhole geophysical logging; natural gamma; short and long normal resistivity; 3 arm caliper; p-s suspension logging; surface electrical resistivity test arrays.
Toole Surveying Company, Inc.	Surveying of borings, CPTs, test pits, ReMi arrays, and surface electrical resistivity test arrays
Wallace Trucking, Grading & Logging, Inc.	Clearing for access and grading as necessary for drill access to boring and CPT locations.
Fugro Consultants – Houston, Texas	RCTS Tests
Prof. K.H. Stokoe, University of Texas / Austin Consultants	Review of RCTS Tests

Prepared By/Date: Matt Cooke/7-31-07 MC WITH PERMISSION

Checked By/Date: Alexandra Taylor/7-31-07 AT

TABLE 1
ORGANIZATIONS PERFORMING WORK AT THE SITE OR IN THE LABORATORY

TABLE 2A
TEST LOCATION SUMMARY (DEPTH BELOW GROUND SURFACE)
VOGTLE UNITS 3 & 4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

Boring/CPT/Test Pit Number	Hammer Serial Number	Location/Remarks	Northing	Easting	Surface Elevation (ft, msl)	Total Depth (ft, bgs)	Top of Concrete Depth (ft, bgs) (1)	Top of Crushed Stone (ft, bgs) (1)	Top of Fill (ft, bgs) (1)	Top of Alluvium (ft, bgs) (1)	Top of Barnwell Group (ft, bgs) (1)	Top of Utley Limestone (ft, bgs) (1)	Top of Blue Bluff Marl (ft, bgs) (1)	Top of Still Branch (ft, bgs) (1)	Top of Congaree Formation (ft, bgs) (1)	Top of Snapp Formation (ft, bgs) (1)
B-1105	165952	SWITCHYARD	1144168.36	620002.76	257.89	148.8	-	-	-	-	0.0	-	-	-	-	-
B-1107	X02958	SWITCHYARD	1144153.75	620916.11	266.66	150.0	-	-	-	-	0.0	128.5	136.5	-	-	-
B-1108	X02958	SWITCHYARD	1144214.07	621273.00	273.56	149.8	-	-	-	-	0.0	122.0	138.5	-	-	-
B-1109	165952	SWITCHYARD	1144180.46	621580.64	276.48	150.0	-	-	-	-	0.0	117.0	131.6	-	-	-
B-1110	165952	SWITCHYARD	1144170.91	622011.31	265.14	150.0	-	-	-	-	0.0	97.0	118.0	-	-	-
B-1111	331145	SWITCHYARD	1144212.59	622333.79	224.90	150.0	-	-	-	-	0.0	71.5	81.8	146.8	-	-
B-1112	331145	SWITCHYARD	1144223.37	622691.31	213.74	23.0	-	-	0.0	-	1.0	-	-	-	-	-
B-1112A	328848	SWITCHYARD	1144219.36	622561.49	227.14	150.0	-	-	-	-	0.0	-	82.0	147.0	-	-
B-1113	331145	SWITCHYARD	1143901.44	620217.17	249.99	170.0	-	-	-	-	0.0	137.0	151.8	-	-	-
B-1116	165952	SWITCHYARD	1143894.12	621264.65	261.82	138.5	-	-	-	-	0.0	117.0	127.0	-	-	-
B-1117	337153	SWITCHYARD	1143890.75	621628.43	263.89	149.3	-	-	-	-	0.0	-	123.5	-	-	-
B-1118	165952	SWITCHYARD	1143885.92	622007.97	257.91	149.4	-	-	-	-	0.0	-	113.0	-	-	-
B-1119	331145	SWITCHYARD	1143888.30	622333.77	223.57	150.0	-	-	-	-	0.0	66.8	81.8	-	-	-
B-1120	219505	SWITCHYARD	1143893.05	622558.49	227.18	149.8	-	-	0.0	-	1.5	82.0	86.8	-	-	-
B-1121	331145	SWITCHYARD	1143575.57	620216.27	241.33	150.0	-	-	-	-	0.0	127.0	142.5	-	-	-
B-1123	337153	SWITCHYARD	1143575.43	620921.98	241.27	150.0	-	-	-	-	0.0	97.0	108.5	-	-	-
B-1124	337153	SWITCHYARD	1143627.62	621421.59	241.21	150.0	-	-	0.0	-	1.5	-	97.0	-	-	-
B-1125	337153	SWITCHYARD	1143586.80	621628.20	240.97	150.0	-	-	-	-	0.0	86.8	96.5	-	-	-
B-1126	211797	SWITCHYARD	1143567.68	621980.43	219.88	150.0	-	-	0.0	-	0.5	-	78.5	142.0	-	-
B-1127	165952	SWITCHYARD	1143573.26	622332.29	219.67	150.0	-	-	0.0	-	2.0	-	78.0	143.0	-	-
B-1128	331145	SWITCHYARD	1143572.65	622682.42	218.26	73.0	-	-	-	-	0.0	-	-	-	-	-
B-1128A	331145	SWITCHYARD	1143573.71	622685.46	217.92	148.8	-	-	-	-	-	-	76.5	141.8	-	-
B-1129	211797	POWER BLOCK ROADS	1143278.22	621893.74	221.84	100.0	-	-	0.0	-	1.5	76.8	81.7	-	-	-
B-1130	337153	POWER BLOCK ROADS	1142482.76	622250.00	217.46	99.2	-	-	-	-	0.0	72.0	81.0	-	-	-
B-1131	211797	POWER BLOCK ROADS	1143172.99	621823.06	222.18	98.6	-	-	-	-	0.0	85.0	88.5	-	-	-
B-1132	211797	POWER BLOCK ROADS	1142614.19	621450.08	218.73	100.0	-	-	0.0	-	1.5	81.8	91.8	-	-	-
B-1133	100	POWER BLOCK ROADS	1142968.94	621451.15	221.20	100.0	-	-	-	-	0.0	-	81.0	-	-	-
B-1134	211797	POWER BLOCK ROADS	1143282.88	621104.27	222.04	100.0	-	-	0.0	-	0.5	67.0	86.8	-	-	-
B-1136	211797	POWER BLOCK ROADS	1143178.11	621023.00	221.65	100.0	-	-	0.0	-	0.6	-	91.8	-	-	-
B-1138	331145	HEAVY HAUL ROAD	1143469.69	619192.80	215.82	100.0	-	-	-	-	0.0	-	-	-	-	-
B-1139	211797	POWER BLOCK ROADS	1142289.86	621026.81	216.68	150.0	-	-	0.0	-	1.5	87.0	94.8	-	-	-
B-1140	211797	POWER BLOCK ROADS	1142290.16	621823.56	216.58	150.0	-	-	0.0	-	0.6	83.5	88.5	-	-	-
B-1142	331145	HEAVY HAUL ROAD	1144416.58	620649.58	224.69	100.0	-	-	-	-	0.0	-	-	-	-	-
B-1146	331145	HEAVY HAUL ROAD	1145428.36	622272.08	240.04	98.6	-	-	-	-	0.0	87.0	92.0	-	-	-
B-1148	331145	HEAVY HAUL ROAD	1145537.78	623236.50	218.94	100.0	-	-	0.0	-	3.0	-	69.5	-	-	-
B-1150	331145	HEAVY HAUL ROAD	1145467.29	624235.30	170.69	100.0	-	-	0.0	-	0.5	-	26.5	96.5	-	-
B-1152	331145	HEAVY HAUL ROAD	1145581.68	625227.34	117.05	100.0	0.0	0.5	3.0	-	-	-	6.8	72.0	-	-
B-1153	331145	HEAVY HAUL ROAD	1145568.97	625673.46	103.58	100.0	0.0	0.6	2.5	-	-	-	4.5	51.0	-	-

TABLE 2A
TEST LOCATION SUMMARY (DEPTH BELOW GROUND SURFACE)
VOGTLE UNITS 3 & 4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

Boring/CPT/Test Pit Number	Hammer Serial Number	Location/Remarks	Northing	Easting	Surface Elevation (ft, msl)	Total Depth (ft, bgs)	Top of Concrete Depth (ft, bgs) (1)	Top of Crushed Stone (ft, bgs) (1)	Top of Fill (ft, bgs) (1)	Top of Alluvium (ft, bgs) (1)	Top of Barnwell Group (ft, bgs) (1)	Top of Utley Limestone (ft, bgs) (1)	Top of Blue Bluff Marl (ft, bgs) (1)	Top of Still Branch (ft, bgs) (1)	Top of Congaree Formation (ft, bgs) (1)	Top of Snapp Formation (ft, bgs) (1)
B-1154	331145	HEAVY HAUL ROAD	1145664.20	626216.06	95.08	98.8	-	-	0.0	21.5	-	-	-	66.5	96.5	-
B-1155	331145	PUMPHOUSE	1147390.34	624936.42	84.95	150.0	-	-	-	0.0	-	-	-	46.5	76.5	-
B-1156	331145	PUMPHOUSE	1147302.50	624571.69	85.70	99.2	-	-	-	0.0	-	-	-	26.5	66.5	-
B-1157	331145	PUMPHOUSE	1147209.56	625062.18	86.77	150.0	-	-	-	0.0	-	-	31.5	49.3	69.4	-
B-1158	331145	PUMPHOUSE	1145194.92	626669.12	88.74	149.5	-	-	-	0.0	-	-	-	51.5	86.5	-
B-1159	331145	PUMPHOUSE	1147285.78	624954.51	88.70	150.0	-	-	-	0.0	-	-	36.5	41.5	66.5	-
B-1161	337153	PUMPHOUSE	1147363.37	624862.14	86.10	150.0	-	-	-	0.0	-	-	-	46.8	71.5	-
B-1162	337153	PUMPHOUSE	1147234.91	624815.03	85.55	200.0	-	-	-	0.0	-	-	-	42.0	76.0	178.8
B-1163	337153	PUMPHOUSE	1147170.58	624938.82	85.95	150.0	-	-	-	0.0	-	-	32.0	52.5	73.0	-
B-1164	337153	PIPE LINE	1146994.84	624518.63	220.50	150.0	-	-	-	-	0.0	62.5	68.5	136.8	-	-
B-1166	337153	PIPE LINE	1147452.97	623961.56	203.40	100.0	-	-	-	-	0.0	-	62.0	-	-	-
B-1168	100	PIPE LINE	1147688.45	623467.78	202.20	100.0	-	-	-	-	0.0	-	57.0	-	-	-
B-1170	100	PIPE LINE	1147423.85	622953.71	223.29	98.9	-	-	-	-	0.0	-	-	-	-	-
B-1172	100	PIPE LINE	1146983.44	622538.70	249.49	100.0	-	-	-	-	0.0	-	-	-	-	-
B-1174	100	PIPE LINE	1146476.06	622228.06	225.81	100.0	-	-	-	-	0.0	-	-	-	-	-
B-1176	100	PIPE LINE	1145876.27	622195.21	221.48	35.0	-	-	-	-	0.0	-	-	-	-	-
B-1176A	100	PIPE LINE	1145878.82	622196.80	221.51	100.0	-	-	-	-	-	35.0	72.5	-	-	-
B-1185	165952	SWITCHYARD	1144716.64	622232.17	226.78	148.9	-	-	-	-	0.0	53.5	83.0	143.0	-	-
B-1186	331145	BATCH PLANT	1144711.88	618818.88	277.51	178.8	-	-	-	-	0.0	-	-	-	-	-
B-1187	331145	BATCH PLANT	1144710.19	619259.61	277.68	150.0	-	-	-	-	0.0	-	-	-	-	-
B-1189	331145	BATCH PLANT	1144459.72	618997.50	279.98	150.0	-	-	-	-	0.0	-	-	-	-	-
B-1191	337153	BATCH PLANT	1144301.60	619490.75	260.30	150.0	-	-	-	-	0.0	-	-	-	-	-
B-1192	331145	BATCH PLANT	1144217.44	618840.90	243.17	179.5	-	-	-	-	0.0	-	157.5	-	-	-
B-1193	337153	BATCH PLANT	1144091.49	619277.79	254.11	178.8	-	-	-	-	0.0	-	162.0	-	-	-
B-1194	100	BORROW AREA 4	1147504.69	621630.15	199.35	50.0	-	-	-	-	0.0	-	-	-	-	-
B-1195	100	BORROW AREA 4	1147574.84	622478.35	220.60	50.0	-	-	-	-	0.0	-	-	-	-	-
B-1196	100	BORROW AREA 4	1147286.63	622017.51	217.52	50.0	-	-	-	-	0.0	-	-	-	-	-
B-1197	100	BORROW AREA 4	1146874.74	622003.82	245.60	50.0	-	-	-	-	0.0	-	-	-	-	-
B-3001(DH)	211797 (2)	EAST POWER BLOCK	1142599.50	621799.64	218.40	420.0	-	-	0.0	-	1.5	74.5	88.5	157.0	214.5 (3)	344.0 (3)
B-3002(DH)	200587 (2)	EAST POWER BLOCK	1142599.97	621872.49	218.89	249.9	-	-	0.0	-	2.0	76.0	85.5	153.0	220.0 (3)	-
B-3002A	X02958	EAST POWER BLOCK	1142597.90	621878.80	218.83	21.5	-	-	-	-	-	-	-	-	-	-
B-3003(DH)	211797 (2)	EAST POWER BLOCK	1142599.85	621727.30	218.29	250.0	-	-	0.0	-	1.5	77.0	88.5	152.0	215.0 (3)	-
B-3004	270256	EAST POWER BLOCK	1142447.42	621867.12	218.51	160.0	-	-	0.0	-	2.1	78.0	86.4	157.0	-	-
B-3005	337153	EAST POWER BLOCK	1142717.58	621749.10	219.20	155.0	-	-	-	-	0.0	82.0	87.0	150.5	-	-
B-3006	200587	EAST POWER BLOCK	1142425.58	621924.99	217.59	155.0	-	-	0.0	-	1.5	78.5	88.0	152.0	-	-
B-3007	200587	EAST POWER BLOCK	1142718.50	621876.74	220.78	159.8	-	-	0.0	-	1.0	78.0	86.5	157.5	-	-
B-3008	200587	EAST POWER BLOCK	1142425.35	621773.01	217.86	155.0	-	-	0.0	-	1.2	-	87.0	152.0	-	-
B-3009	211797	EAST POWER BLOCK	1142484.48	621956.58	217.85	153.9	-	-	-	-	0.0	77.0	88.5	148.5	-	-

TABLE 2A
TEST LOCATION SUMMARY (DEPTH BELOW GROUND SURFACE)
VOGTLE UNITS 3 & 4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

Boring/CPT/Test Pit Number	Hammer Serial Number	Location/Remarks	Northing	Easting	Surface Elevation (ft, msl)	Total Depth (ft, bgs)	Top of Concrete Depth (ft, bgs) (1)	Top of Crushed Stone (ft, bgs) (1)	Top of Fill (ft, bgs) (1)	Top of Alluvium (ft, bgs) (1)	Top of Barnwell Group (ft, bgs) (1)	Top of Utley Limestone (ft, bgs) (1)	Top of Blue Bluff Marl (ft, bgs) (1)	Top of Still Branch (ft, bgs) (1)	Top of Congaree Formation (ft, bgs) (1)	Top of Snapp Formation (ft, bgs) (1)
B-3010	270256	EAST POWER BLOCK	1142634.86	622024.97	219.69	160.0	-	-	0.0	-	0.2	76.0	86.0	157.0	-	-
B-3011	211797	EAST POWER BLOCK	1142776.68	622024.86	220.57	165.0	-	-	-	-	0.0	87.0	92.0	162.0	-	-
B-3012	165952	EAST POWER BLOCK	1142772.53	621911.91	220.40	159.3	-	-	-	-	0.0	-	87.0	157.0	-	-
B-3013(C)	337153	EAST POWER BLOCK	1142842.89	621825.35	220.51	155.0	-	-	-	-	0.0	83.0	85.5	150.5	-	-
B-3014	X02958	EAST POWER BLOCK	1142799.43	621748.55	220.26	158.7	-	-	0.0	-	7.0	81.0	88.0	152.0	-	-
B-3015	328848	EAST POWER BLOCK	1142956.89	621823.95	221.78	150.0	-	-	-	-	0.0	84.8	87.0	149.0	-	-
B-3016	200587	EAST POWER BLOCK	1142978.42	621913.43	222.48	150.0	-	-	-	-	0.0	80.0	88.5	-	-	-
B-3017	270256	EAST POWER BLOCK	1143034.35	621749.86	222.10	150.0	-	-	-	-	0.0	83.5	86.0	-	-	-
B-3018	328848	EAST POWER BLOCK	1142738.11	622115.75	219.80	155.0	-	-	-	-	0.0	77.0	87.0	152.0	-	-
B-3019	219505	EAST POWER BLOCK	1142977.36	622167.48	222.42	153.8	-	-	-	-	0.0	77.0	86.8	148.0	-	-
B-3020	328848	EAST POWER BLOCK	1142977.94	622074.78	222.44	149.4	-	-	-	-	0.0	82.0	87.0	147.0	-	-
B-3021	311025 (2)	EAST POWER BLOCK	1143070.22	622033.23	223.19	154.5	-	-	-	-	0.0	77.0	86.0	148.0	-	-
B-3022	200587	EAST POWER BLOCK	1143069.84	621873.43	223.86	150.0	-	-	-	-	0.0	-	87.0	146.5	-	-
B-3023	270256	EAST POWER BLOCK	1143061.11	621679.90	222.81	150.5	-	-	-	-	0.0	83.5	86.0	149.0	-	-
B-3024	337153	CIRC. WATER LINE	1142905.82	621399.65	220.16	150.0	-	-	-	-	0.0	-	82.0	-	-	-
B-3025	219907	CIRC. WATER LINE	1142460.42	621425.34	218.21	150.0	-	-	0.0	-	1.0	83.5	92.0	-	-	-
B-3026	219907	CIRC. WATER LINE	1142290.23	621403.73	215.76	149.2	-	-	0.0	-	0.5	78.5	85.5	-	-	-
B-3027	311025	CIRC. WATER LINE	1142058.69	621423.26	218.80	150.0	-	-	-	-	0.0	82.0	86.0	-	-	-
B-3028	311025	CIRC. WATER LINE	1141867.30	621408.76	220.12	150.0	-	-	-	-	0.0	87.0	92.0	-	-	-
B-3029	219505	CIRC. WATER LINE	1141881.50	621803.88	220.13	149.9	-	-	-	-	0.0	83.0	92.0	-	-	-
B-3030	311025	COOLING TOWER	1141699.94	621799.67	221.99	150.0	-	-	0.0	-	5.5	87.0	99.0	-	-	-
B-3031	219505	COOLING TOWER	1141398.73	622042.01	222.70	150.0	-	-	-	-	0.0	95.0	104.0	-	-	-
B-3032	219505	COOLING TOWER	1141158.18	621709.53	220.05	149.5	-	-	-	-	0.0	-	105.0	-	-	-
B-3033	219505	COOLING TOWER	1141405.26	621715.21	222.26	149.3	-	-	-	-	0.0	-	103.0	-	-	-
B-3034	219907	COOLING TOWER	1141399.76	621914.68	224.67	149.2	-	-	0.0	-	1.5	72.0	106.0	-	-	-
B-3035	328848	EAST POWER BLOCK	1142729.18	621675.37	219.34	150.5	-	-	-	-	0.0	78.0	90.0	150.0	-	-
B-3036	211797	EAST POWER BLOCK	1142441.55	621675.96	217.87	155.0	-	-	0.0	-	0.4	73.5	88.0	153.5	-	-
B-3037	270256	EAST POWER BLOCK	1143057.42	621768.87	222.94	150.0	-	-	-	-	0.0	83.0	87.0	149.0	-	-
B-3038	211797	CIRC. WATER LINE	1141882.97	621543.15	220.76	98.9	-	-	0.0	-	1.5	87.0	98.5	-	-	-
B-3039	331145	EAST POWER BLOCK	1142917.72	621753.54	219.17	150.0	-	-	-	-	0.0	-	81.5	147.0	-	-
B-4001(DH)	219907 (2)	WEST POWER BLOCK	1142599.53	621000.20	218.88	399.9	-	-	0.0	-	0.6	-	89.7	166.6	219.0 (3)	335.0 (3)
B-4002(DH)	219907	WEST POWER BLOCK	1142600.19	621072.22	219.06	250.0	-	-	0.0	-	0.8	82.0	92.0	161.7	224.8 (3)	-
B-4003(DH)	219907	WEST POWER BLOCK	1142599.93	620927.13	218.99	249.8	-	-	0.0	-	0.6	-	92.0	166.0	228.0 (3)	-
B-4004	219907	WEST POWER BLOCK	1142459.68	621046.56	218.45	150.0	-	-	0.0	-	1.0	87.5	91.0	-	-	-
B-4005	219907	WEST POWER BLOCK	1142714.97	620948.74	221.13	164.9	-	-	0.0	-	1.0	-	89.5	163.0	-	-
B-4006	219907	WEST POWER BLOCK	1142719.63	621076.36	220.98	165.0	-	-	-	-	0.0	-	89.5	160.0	-	-
B-4007	219907	WEST POWER BLOCK	1142426.19	621125.28	217.90	170.0	-	-	0.0	-	1.0	82.0	93.8	166.0	-	-
B-4008	219907	WEST POWER BLOCK	1142424.22	620973.78	218.08	169.4	-	-	0.0	-	0.8	87.0	92.0	165.0	-	-

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VOGTLE UNITS 3 & 4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

Boring/CPT/Test Pit Number	Hammer Serial Number	Location/Remarks	Northing	Easting	Surface Elevation (ft, msl)	Total Depth (ft, bgs)	Top of Concrete Depth (ft, bgs) (1)	Top of Crushed Stone (ft, bgs) (1)	Top of Fill (ft, bgs) (1)	Top of Alluvium (ft, bgs) (1)	Top of Barnwell Group (ft, bgs) (1)	Top of Utley Limestone (ft, bgs) (1)	Top of Blue Bluff Marl (ft, bgs) (1)	Top of Still Branch (ft, bgs) (1)	Top of Congaree Formation (ft, bgs) (1)	Top of Snapp Formation (ft, bgs) (1)
B-4009	328848	WEST POWER BLOCK	1142486.09	621156.86	217.91	164.9	-	-	0.0	-	0.3	81.5	92.5	162.0	-	-
B-4010	328848	WEST POWER BLOCK	1142667.58	621249.04	219.09	160.0	-	-	-	-	0.0	82.0	89.8	157.0	-	-
B-4011	328848	WEST POWER BLOCK	1142773.07	621236.36	219.08	150.0	-	-	-	-	0.0	-	83.0	147.0	-	-
B-4013(C)	337153	WEST POWER BLOCK	1142842.72	621020.31	222.24	165.0	-	-	-	-	0.0	-	88.5	160.0	-	-
B-4014	200587	WEST POWER BLOCK	1142831.99	620950.23	220.74	158.6	-	-	-	-	0.0	77.0	87.2	156.8	-	-
B-4015	328848	WEST POWER BLOCK	1142773.04	621115.24	220.11	155.0	-	-	-	-	0.0	-	84.5	152.0	-	-
B-4016	328848	WEST POWER BLOCK	1142996.39	621112.90	221.23	149.6	-	-	0.0	-	1.5	-	86.5	-	-	-
B-4017	219907	WEST POWER BLOCK	1143034.80	620949.92	220.94	150.0	0.0	-	-	-	0.5	66.0	89.0	-	-	-
B-4018	270256	WEST POWER BLOCK	1142735.45	621315.51	220.30	160.0	-	-	0.0	-	1.5	82.0	86.5	155.5	-	-
B-4019	328848	WEST POWER BLOCK	1142975.89	621371.41	221.76	160.0	-	-	-	-	0.0	77.0	87.0	157.0	-	-
B-4020	100	WEST POWER BLOCK	1142969.39	621280.02	222.79	89.4	-	-	0.0	-	1.0	72.0	87.0	-	-	-
B-4020A	337153	WEST POWER BLOCK	1142973.73	621280.34	222.56	165.0	-	-	-	-	-	-	-	160.5	-	-
B-4021	200587	WEST POWER BLOCK	1143092.61	621247.38	224.55	150.0	-	-	-	-	0.0	72.0	86.5	-	-	-
B-4022	328848	WEST POWER BLOCK	1143081.30	621073.52	220.71	148.7	-	-	-	-	0.0	81.5	87.5	-	-	-
B-4023	328848	WEST POWER BLOCK	1143062.36	620879.81	220.71	150.0	-	-	0.0	-	8.0	-	88.3	-	-	-
B-4024	328848	CIRC. WATER LINE	1142904.78	620601.81	223.80	150.0	-	-	0.0	-	1.0	78.0	91.0	-	-	-
B-4025	211797	CIRC. WATER LINE	1142510.01	620625.03	220.80	150.0	-	-	0.0	-	1.0	87.0	91.8	-	-	-
B-4026	211797	CIRC. WATER LINE	1142330.16	620597.72	221.54	150.0	-	-	-	-	0.0	85.0	97.0	-	-	-
B-4027	328848	CIRC. WATER LINE	1142180.05	620633.45	217.73	150.0	-	-	-	-	0.0	72.0	87.0	-	-	-
B-4028	219505	CIRC. WATER LINE	1141984.20	620587.77	219.57	150.0	-	-	-	-	0.0	74.5	89.0	-	-	-
B-4029	328848	CIRC. WATER LINE	1141874.85	620699.95	220.28	150.0	-	-	0.0	-	1.2	-	91.0	-	-	-
B-4030	219505	COOLING TOWER	1141676.68	620698.48	222.35	150.3	-	-	-	-	0.0	-	97.0	-	-	-
B-4031	211797	COOLING TOWER	1141399.83	620975.03	222.13	150.0	-	-	-	-	0.0	-	96.8	-	-	-
B-4032	211797	COOLING TOWER	1141118.48	620794.64	220.24	38.5	-	-	-	-	0.0	-	-	-	-	-
B-4032A	211797	COOLING TOWER	1141123.72	620794.66	220.22	150.0	-	-	-	-	-	-	101.0	-	-	-
B-4033	219505	COOLING TOWER	1141398.11	620348.78	219.93	149.4	-	-	-	-	0.0	77.0	87.0	-	-	-
B-4034	219505	COOLING TOWER	1141375.68	620795.35	222.79	150.0	-	-	0.0	-	0.5	-	98.5	-	-	-
B-4035	328848	WEST POWER BLOCK	1142729.08	620876.27	220.52	164.8	-	-	0.0	-	1.5	82.0	86.0	162.0	-	-
B-4036	219907	WEST POWER BLOCK	1142457.21	620876.25	218.05	170.0	-	-	0.0	-	0.6	82.0	91.0	166.0	-	-
B-5001	331145	230 KV SWITCHYARD	1146177.05	621807.73	218.99	150.0	-	-	-	-	0.0	-	102.0	-	-	-
B-5002	337153	230 KV SWITCHYARD	1146339.76	621808.33	241.53	150.0	-	-	-	-	0.0	-	127.0	-	-	-
B-5003	337153	230 KV SWITCHYARD	1146386.61	621574.70	227.94	148.7	-	-	-	-	0.0	-	117.0	-	-	-
B-5004	331145	230 KV SWITCHYARD	1146547.79	621568.38	236.61	149.8	-	-	-	-	0.0	117.0	122.0	-	-	-
B-6002	331145	BATCH PLANT	1144134.10	619626.88	247.90	150.0	-	-	-	-	0.0	-	-	-	-	-
B-6003	331145	BATCH PLANT	1143925.02	619422.80	229.76	179.4	-	-	-	-	0.0	-	136.8	-	-	-
B-6004	331145	BATCH PLANT	1143718.15	619473.34	231.59	150.0	-	-	-	-	0.0	-	136.8	-	-	-
B-6005	331145	BATCH PLANT	1143717.98	619873.77	242.59	178.8	-	-	-	-	0.0	-	147.5	-	-	-
B-6006	331145	CONSTRUCTION WAREHOUSE	1143069.79	620301.79	248.22	50.0	-	-	0.0	-	27.0	-	-	-	-	-

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VOGTLE UNITS 3 & 4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

Boring/CPT/Test Pit Number	Hammer Serial Number	Location/Remarks	Northing	Easting	Surface Elevation (ft, msl)	Total Depth (ft, bgs)	Top of Concrete Depth (ft, bgs) (1)	Top of Crushed Stone (ft, bgs) (1)	Top of Fill (ft, bgs) (1)	Top of Alluvium (ft, bgs) (1)	Top of Barnwell Group (ft, bgs) (1)	Top of Utley Limestone (ft, bgs) (1)	Top of Blue Bluff Marl (ft, bgs) (1)	Top of Still Branch (ft, bgs) (1)	Top of Congaree Formation (ft, bgs) (1)	Top of Snapp Formation (ft, bgs) (1)
B-6007	219907	CONSTRUCTION WAREHOUSE	1142730.73	620301.79	222.28	50.0	-	-	0.0	-	1.5	-	-	-	-	-
B-6008	331145	DECHLORINATION BUILDING	1145443.82	622676.36	240.11	150.0	-	-	-	-	0.0	-	92.5	-	-	-
B-6009	X02958	HEAVY HAUL ROAD	1144773.69	621748.18	246.04	100.0	-	-	-	-	0.0	92.0	-	-	-	-
B-6010	331145	500 KV SWITCHYARD	1143893.34	621059.21	263.39	169.3	-	-	-	-	0.0	117.0	126.5	-	-	-
B-6011	X02958	HEAVY HAUL ROAD	1144557.94	621261.73	244.00	120.0	-	-	-	-	0.0	92.0	107.0	-	-	-
B-6012	331145	HEAVY HAUL ROAD	1144256.66	620480.54	194.20	120.0	-	-	-	-	0.0	82.0	96.5	-	-	-
B-6013	331145	ACCESS ROAD	1143169.54	617234.87	251.14	50.0	-	-	-	-	0.0	-	-	-	-	-
B-6014	331145	ACCESS ROAD	1143168.15	618281.46	209.79	50.0	-	-	-	-	0.0	-	-	-	-	-
B-6015	331145	ACCESS ROAD	1143166.26	619317.85	221.52	50.0	-	-	-	-	0.0	-	-	-	-	-
B-6018	331145	LAY DOWN YARD	1142909.31	618366.55	204.66	50.0	-	-	-	-	0.0	-	-	-	-	-
B-6019	331145	LAY DOWN YARD	1142132.73	618344.49	163.94	50.0	-	-	-	-	0.0	-	-	-	-	-
B-6020	331145	LAY DOWN YARD	1142634.02	619555.91	221.48	130.0	-	-	0.0	-	3.0	112.0	122.0	-	-	-
B-6021	331145	LAY DOWN YARD	1142185.73	619103.41	209.80	120.0	-	-	-	-	0.0	97.0	113.0	-	-	-
B-6022	331145	LAY DOWN YARD	1142224.77	620040.33	216.23	90.0	-	-	0.0	-	10.5	-	82.0	-	-	-
B-6023	331145	LAY DOWN YARD	1141553.10	619177.88	202.77	50.0	-	-	0.0	-	8.5	-	-	-	-	-
B-6024	331145	LAY DOWN YARD	1141545.87	619997.72	216.07	50.0	-	-	0.0	-	3.5	-	-	-	-	-
B-6025	331145	LAY DOWN YARD	1140518.65	619189.73	172.69	50.0	-	-	0.0	-	1.5	-	47.0	-	-	-
B-6026	331145	LAY DOWN YARD	1140537.74	619900.15	215.46	50.0	-	-	0.0	-	1.0	-	-	-	-	-
B-6027	331145	NEW BARGE SLIP	1145779.35	626145.09	96.65	75.0	-	-	0.0	18.0	-	-	-	33.5	-	-
B-6028	331145	NEW BARGE SLIP	1145611.36	626062.41	95.70	50.0	-	-	0.0	18.5	-	-	-	-	-	-
B-6029	331145	NEW INTAKE ACCESS ROAD	1147771.71	623966.62	85.41	50.0	-	-	-	0.0	-	-	21.7	26.7	-	-
B-6030	331145	NEW INTAKE ACCESS ROAD	1147588.12	624222.62	88.37	50.0	-	-	-	0.0	-	-	-	42.0	-	-
C-1101	NA	HEAVY HAUL ROAD	1144357.46	620185.46	265.76	71.4	-	-	-	-	-	-	-	-	-	-
C-1102	NA	HEAVY HAUL ROAD	1144424.00	621333.43	267.61	51.4	-	-	-	-	-	-	-	-	-	-
C-1103	NA	HEAVY HAUL ROAD	1145011.61	622037.40	236.52	27.4	-	-	-	-	-	-	-	-	-	-
C-1104	NA	HEAVY HAUL ROAD	1145601.77	622746.95	230.19	77.1	-	-	-	-	-	-	-	-	-	-
C-1105	NA	HEAVY HAUL ROAD	1145483.00	623733.68	200.57	50.2	-	-	-	-	-	-	-	-	-	-
C-1106	NA	HEAVY HAUL ROAD	1145533.96	624748.08	138.02	20.0	-	-	-	-	-	-	-	-	-	-
C-1107	NA	PIPE LINE	1147233.91	624202.32	211.92	71.0	-	-	-	-	-	-	-	-	-	-
C-1108	NA	PIPE LINE	1147628.30	623753.23	200.89	59.6	-	-	-	-	-	-	-	-	-	-
C-1109	NA	PIPE LINE	1147622.11	623171.88	209.79	72.5	-	-	-	-	-	-	-	-	-	-
C-1110	NA	PIPE LINE	1147198.95	622740.32	242.39	72.3	-	-	-	-	-	-	-	-	-	-
C-1111	NA	PIPE LINE	1146753.15	622346.15	250.69	32.2	-	-	-	-	-	-	-	-	-	-
C-3001	NA	EAST POWER BLOCK	1142610.55	621726.54	218.37	70.1	-	-	-	-	-	-	-	-	-	-
C-3002	NA	EAST POWER BLOCK	1142606.51	621872.75	218.89	67.9	-	-	-	-	-	-	-	-	-	-
C-3003	NA	COOLING TOWER AREA	1141771.79	621801.62	221.38	82.0	-	-	-	-	-	-	-	-	-	-
C-3004	NA	COOLING TOWER AREA	1141542.00	621807.33	223.25	72.7	-	-	-	-	-	-	-	-	-	-
C-3005	NA	COOLING TOWER AREA	1141266.89	621792.33	221.27	101.1	-	-	-	-	-	-	-	-	-	-

TABLE 2A
TEST LOCATION SUMMARY (DEPTH BELOW GROUND SURFACE)
VOGTLE UNITS 3 & 4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

Boring/CPT/Test Pit Number	Hammer Serial Number	Location/Remarks	Northing	Easting	Surface Elevation (ft, msl)	Total Depth (ft, bgs)	Top of Concrete Depth (ft, bgs) (1)	Top of Crushed Stone (ft, bgs) (1)	Top of Fill (ft, bgs) (1)	Top of Alluvium (ft, bgs) (1)	Top of Barnwell Group (ft, bgs) (1)	Top of Utley Limestone (ft, bgs) (1)	Top of Blue Bluff Marl (ft, bgs) (1)	Top of Still Branch (ft, bgs) (1)	Top of Congaree Formation (ft, bgs) (1)	Top of Snapp Formation (ft, bgs) (1)
C-4001	NA	WEST POWER BLOCK	1142599.87	620918.51	218.87	74.2	-	-	-	-	-	-	-	-	-	-
C-4002	NA	WEST POWER BLOCK	1142599.94	621063.82	219.08	82.2	-	-	-	-	-	-	-	-	-	-
C-4003	NA	COOLING TOWER AREA	1141784.64	620708.48	221.16	82.5	-	-	-	-	-	-	-	-	-	-
C-4004	NA	COOLING TOWER AREA	1141543.07	620597.67	219.99	77.1	-	-	-	-	-	-	-	-	-	-
C-4005	NA	COOLING TOWER AREA	1141249.90	620593.96	220.01	90.2	-	-	-	-	-	-	-	-	-	-
ER-1103CL	NA	SWITCHYARD	1144258.24	621799.94	279.61	NA	-	-	-	-	-	-	-	-	-	-
ER-1103N	NA	SWITCHYARD	1144706.50	621821.45	250.84	NA	-	-	-	-	-	-	-	-	-	-
ER-1103S	NA	SWITCHYARD	1143809.08	621785.19	258.96	NA	-	-	-	-	-	-	-	-	-	-
ER-1104CL	NA	SWITCHYARD	1143823.00	621536.77	257.11	NA	-	-	-	-	-	-	-	-	-	-
ER-1104E	NA	SWITCHYARD	1143820.75	621986.25	257.44	NA	-	-	-	-	-	-	-	-	-	-
ER-1104W	NA	SWITCHYARD	1143821.35	621086.95	258.33	NA	-	-	-	-	-	-	-	-	-	-
ER-1105	NA	230 KV SWITCHYARD	1146579.02	621622.05	243.09	NA	-	-	-	-	-	-	-	-	-	-
ER-1105	NA	230 KV SWITCHYARD	1146866.31	621276.81	226.62	NA	-	-	-	-	-	-	-	-	-	-
ER-1105	NA	230 KV SWITCHYARD	1146286.04	621961.60	226.63	NA	-	-	-	-	-	-	-	-	-	-
ER-1106	NA	230 KV SWITCHYARD	1146706.48	621999.64	256.15	NA	-	-	-	-	-	-	-	-	-	-
ER-1106	NA	230 KV SWITCHYARD	1146039.75	621401.84	164.68	NA	-	-	-	-	-	-	-	-	-	-
ER-1106	NA	230 KV SWITCHYARD	1146365.63	621702.00	237.53	NA	-	-	-	-	-	-	-	-	-	-
ER-3001	NA	COOLING TOWER	1141404.39	621932.86	223.41	NA	-	-	-	-	-	-	-	-	-	-
ER-3001	NA	COOLING TOWER	1141104.51	621935.56	219.44	NA	-	-	-	-	-	-	-	-	-	-
ER-3001	NA	COOLING TOWER	1141704.88	621929.94	221.43	NA	-	-	-	-	-	-	-	-	-	-
ER-3002	NA	COOLING TOWER	1141220.32	621725.95	220.47	NA	-	-	-	-	-	-	-	-	-	-
ER-3002	NA	COOLING TOWER	1141206.51	622025.58	220.02	NA	-	-	-	-	-	-	-	-	-	-
ER-3002	NA	COOLING TOWER	1141200.00	622324.03	220.49	NA	-	-	-	-	-	-	-	-	-	-
ER-4001	NA	COOLING TOWER	1141375.68	620795.35	222.79	NA	-	-	-	-	-	-	-	-	-	-
ER-4001	NA	COOLING TOWER	1141133.24	620798.50	220.41	NA	-	-	-	-	-	-	-	-	-	-
ER-4001	NA	COOLING TOWER	1141583.32	620797.68	223.47	NA	-	-	-	-	-	-	-	-	-	-
ER-4001	NA	COOLING TOWER	1140683.32	620798.70	215.33	NA	-	-	-	-	-	-	-	-	-	-
ER-4002	NA	COOLING TOWER	1141375.68	620795.35	222.79	NA	-	-	-	-	-	-	-	-	-	-
ER-4002	NA	COOLING TOWER	1141796.43	620333.57	220.73	NA	-	-	-	-	-	-	-	-	-	-
ER-4002	NA	COOLING TOWER	1140897.17	620349.94	219.86	NA	-	-	-	-	-	-	-	-	-	-
ER-4002CL	NA	COOLING TOWER	1141346.76	620341.65	219.84	NA	-	-	-	-	-	-	-	-	-	-
ER-4003	NA	CIRC. WATER LINE	1142180.05	620633.45	217.73	NA	-	-	-	-	-	-	-	-	-	-
ER-4003	NA	CIRC. WATER LINE	1142049.90	620629.66	219.61	NA	-	-	-	-	-	-	-	-	-	-
ER-4003	NA	CIRC. WATER LINE	1141575.77	620263.31	217.95	NA	-	-	-	-	-	-	-	-	-	-
ER-4003CL	NA	CIRC. WATER LINE	1141813.06	620446.25	220.68	NA	-	-	-	-	-	-	-	-	-	-
ER-4004	NA	CIRC. WATER LINE	1142060.89	621873.12	218.35	NA	-	-	-	-	-	-	-	-	-	-
ER-4004	NA	CIRC. WATER LINE	1142060.45	621423.14	218.46	NA	-	-	-	-	-	-	-	-	-	-
ER-4004	NA	CIRC. WATER LINE	1142057.75	620973.50	219.21	NA	-	-	-	-	-	-	-	-	-	-

TABLE 2A
TEST LOCATION SUMMARY (DEPTH BELOW GROUND SURFACE)
VOGTLE UNITS 3 & 4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

Boring/CPT/Test Pit Number	Hammer Serial Number	Location/Remarks	Northing	Easting	Surface Elevation (ft, msl)	Total Depth (ft, bgs)	Top of Concrete Depth (ft, bgs) (1)	Top of Crushed Stone (ft, bgs) (1)	Top of Fill (ft, bgs) (1)	Top of Alluvium (ft, bgs) (1)	Top of Barnwell Group (ft, bgs) (1)	Top of Utley Limestone (ft, bgs) (1)	Top of Blue Bluff Marl (ft, bgs) (1)	Top of Still Branch (ft, bgs) (1)	Top of Congaree Formation (ft, bgs) (1)	Top of Snapp Formation (ft, bgs) (1)
REMI-1101CL	NA	UNIT 1 & 2 PROTECTED AREA	1143195.74	623156.24	217.83	NA	-	-	-	-	-	-	-	-	-	-
REMI-1101N	NA	UNIT 1 & 2 PROTECTED AREA	1143344.68	623156.02	218.60	NA	-	-	-	-	-	-	-	-	-	-
REMI-1101S	NA	UNIT 1 & 2 PROTECTED AREA	1143046.36	623156.23	217.87	NA	-	-	-	-	-	-	-	-	-	-
REMI-1102CL	NA	UNIT 1 & 2 PROTECTED AREA	1143432.28	623846.88	217.84	NA	-	-	-	-	-	-	-	-	-	-
REMI-1102E	NA	UNIT 1 & 2 PROTECTED AREA	1143433.70	623995.86	217.75	NA	-	-	-	-	-	-	-	-	-	-
REMI-1102W	NA	UNIT 1 & 2 PROTECTED AREA	1143431.62	623697.54	217.88	NA	-	-	-	-	-	-	-	-	-	-
REMI-3001EAST	NA	EAST POWER BLOCK	1142620.86	621877.24	218.54	NA	-	-	-	-	-	-	-	-	-	-
REMI-3001WEST	NA	EAST POWER BLOCK	1142620.58	621577.79	218.20	NA	-	-	-	-	-	-	-	-	-	-
REMI-4001EAST	NA	WEST POWER BLOCK	1142620.95	621150.17	218.71	NA	-	-	-	-	-	-	-	-	-	-
REMI-4001WEST	NA	WEST POWER BLOCK	1142624.08	620856.90	219.31	NA	-	-	-	-	-	-	-	-	-	-
TP-B-1108	NA	SWITCHYARD	1144312.49	621145.92	264.14	12.2	-	-	0.0	-	0.5	-	-	-	-	-
TP-B-1117	NA	SWITCHYARD	1143967.31	621627.50	269.50	9.0	-	-	0.0	-	2.0	-	-	-	-	-
TP-B-1121	NA	SWITCHYARD	1143591.74	620401.53	241.17	14.0	-	-	0.0	-	-	-	-	-	-	-
TP-B-1125	NA	SWITCHYARD	1143603.70	621685.81	240.61	11.0	-	-	0.0	-	-	-	-	-	-	-
TP-B-1185	NA	SWITCHYARD	1144634.18	622242.15	225.17	11.0	-	-	0.0	-	1.5	-	-	-	-	-
TP-B-1194	NA	BORROW AREA 4	1147500.59	621708.45	202.73	11.5	-	-	0.0	-	0.5	-	-	-	-	-
TP-B-1195	NA	BORROW AREA 4	1147648.39	622363.06	212.15	8.0	-	-	-	-	0.0	-	-	-	-	-
TP-B-1197	NA	BORROW AREA 4	1146874.40	622074.57	245.94	11.0	-	-	0.0	-	1.5	-	-	-	-	-

NOTES:

NA Not Applicable
bgs below ground surface
msl Mean Sea Level
(1) The layer depths tabulated are estimated depths based on the rig geologist/engineer's examination of samples under the direction of the Site Coordinator from depth intervals ranging from 2.5 to 10.0 feet. Other observations, including but not limited to drilling resistance and drilling fluid pressure were used to estimate the depth to layers between sample intervals. The elevations of certain layers encountered beneath alluvial soils in the floodplain of the Savannah River may not correlate to elevations of these layers in other areas of the site. This may be due to scouring and subsequent deposition of alluvial sediments by the Savannah River.

(2) Multiple drill rigs with different SPT Hammers were used to drill various portions of borings B-3001, B-3002, B-3003, B-4001, and B-3021. Please see the boring logs in Attachment B for details.

(3) Layer depth picks made by examination of geophysical logs in conjunction with samples.

Prepared By/Date: Alexandra Taylor/11-6-07

Checked By/Date: Martha Lucia Herrera/11-6-07

TABLE 2B
TEST LOCATION SUMMARY (ELEVATION)
VOGTLE UNITS 3&4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

Boring/CPT/Test Pit Number	Hammer Serial Number	Location/Remarks	Northing	Easting	Surface Elevation (ft, msl)	Total Depth (ft, bgs)	Top of Concrete Elevation (ft, msl)	Top of Crushed Stone Elevation (ft, msl)	Top of Fill Elevation (ft, msl)	Top of Alluvium Elevation (ft, msl)	Top of Barnwell Group Elevation (ft, msl)	Top of Utley Limestone Elevation (ft, msl)	Top of Blue Bluff Marl Elevation (ft, msl)	Top of Still Branch Elevation (ft, msl)	Top of Congaree Formation Elevation (ft, msl)	Top of Snapp Formation Elevation (ft, msl)
B-1105	165952	SWITCHYARD	1144168.36	620002.76	257.89	148.8	-	-	-	-	257.9	-	-	-	-	-
B-1107	X02958	SWITCHYARD	1144153.75	620916.11	266.66	150.0	-	-	-	-	266.7	138.2	130.2	-	-	-
B-1108	X02958	SWITCHYARD	1144214.07	621273.00	273.56	149.8	-	-	-	-	273.6	151.6	135.1	-	-	-
B-1109	165952	SWITCHYARD	1144180.46	621580.64	276.48	150.0	-	-	-	-	276.5	159.5	144.9	-	-	-
B-1110	165952	SWITCHYARD	1144170.91	622011.31	265.14	150.0	-	-	-	-	265.1	168.1	147.1	-	-	-
B-1111	331145	SWITCHYARD	1144212.59	622333.79	224.90	150.0	-	-	-	-	224.9	153.4	143.2	78.2	-	-
B-1112	331145	SWITCHYARD	1144223.37	622691.31	213.74	23.0	-	-	213.7	-	212.7	-	-	-	-	-
B-1112A	328848	SWITCHYARD	1144219.36	622561.49	227.14	150.0	-	-	-	-	227.1	-	145.1	80.1	-	-
B-1113	331145	SWITCHYARD	1143901.44	620217.17	249.99	170.0	-	-	-	-	250.0	113.0	98.2	-	-	-
B-1116	165952	SWITCHYARD	1143894.12	621264.65	261.82	138.5	-	-	-	-	261.8	144.8	134.8	-	-	-
B-1117	337153	SWITCHYARD	1143890.75	621628.43	263.89	149.3	-	-	-	-	263.9	-	140.4	-	-	-
B-1118	165952	SWITCHYARD	1143885.92	622007.97	257.91	149.4	-	-	-	-	257.9	-	144.9	-	-	-
B-1119	331145	SWITCHYARD	1143888.30	622333.77	223.57	150.0	-	-	-	-	223.6	156.8	141.8	-	-	-
B-1120	219505	SWITCHYARD	1143893.05	622558.49	227.18	149.8	-	-	227.2	-	225.7	145.2	140.4	-	-	-
B-1121	331145	SWITCHYARD	1143575.57	620216.27	241.33	150.0	-	-	-	-	241.3	114.3	98.8	-	-	-
B-1123	337153	SWITCHYARD	1143575.43	620921.98	241.27	150.0	-	-	-	-	241.3	144.3	132.8	-	-	-
B-1124	337153	SWITCHYARD	1143627.62	621421.59	241.21	150.0	-	-	241.2	-	239.7	-	144.2	-	-	-
B-1125	337153	SWITCHYARD	1143586.80	621628.20	240.97	150.0	-	-	-	-	241.0	154.2	144.5	-	-	-
B-1126	211797	SWITCHYARD	1143567.68	621980.43	219.88	150.0	-	-	219.9	-	219.4	-	141.4	77.9	-	-
B-1127	165952	SWITCHYARD	1143573.26	622332.29	219.67	150.0	-	-	219.7	-	217.7	-	141.7	76.7	-	-
B-1128	331145	SWITCHYARD	1143572.65	622682.42	218.26	73.0	-	-	-	-	218.3	-	-	-	-	-
B-1128A	331145	SWITCHYARD	1143573.71	622685.46	217.92	148.8	-	-	-	-	-	-	141.4	76.2	-	-
B-1129	211797	POWER BLOCK ROADS	1143278.22	621893.74	221.84	100.0	-	-	221.8	-	220.3	145.0	140.1	-	-	-
B-1130	337153	POWER BLOCK ROADS	1142482.76	622250.00	217.46	99.2	-	-	-	-	217.5	145.5	136.5	-	-	-
B-1131	211797	POWER BLOCK ROADS	1143172.99	621823.06	222.18	98.6	-	-	-	-	222.2	137.2	133.7	-	-	-
B-1132	211797	POWER BLOCK ROADS	1142614.19	621450.08	218.73	100.0	-	-	218.7	-	217.2	137.0	127.0	-	-	-
B-1133	100	POWER BLOCK ROADS	1142968.94	621451.15	221.20	100.0	-	-	-	-	221.2	-	140.2	-	-	-
B-1134	211797	POWER BLOCK ROADS	1143282.88	621104.27	222.04	100.0	-	-	222.0	-	221.5	155.0	135.3	-	-	-
B-1136	211797	POWER BLOCK ROADS	1143178.11	621023.00	221.65	100.0	-	-	221.6	-	221.0	-	129.9	-	-	-
B-1138	331145	HEAVY HAUL ROAD	1143469.69	619192.80	215.82	100.0	-	-	-	-	215.8	-	-	-	-	-
B-1139	211797	POWER BLOCK ROADS	1142289.86	621026.81	216.68	150.0	-	-	216.7	-	215.2	129.7	121.9	-	-	-
B-1140	211797	POWER BLOCK ROADS	1142290.16	621823.56	216.58	150.0	-	-	216.6	-	216.0	133.1	128.1	-	-	-
B-1142	331145	HEAVY HAUL ROAD	1144416.58	620649.58	224.69	100.0	-	-	-	-	224.7	-	-	-	-	-
B-1146	331145	HEAVY HAUL ROAD	1145428.36	622272.08	240.04	98.6	-	-	-	-	240.0	153.0	148.0	-	-	-
B-1148	331145	HEAVY HAUL ROAD	1145537.78	623236.50	218.94	100.0	-	-	218.9	-	215.9	-	149.4	-	-	-
B-1150	331145	HEAVY HAUL ROAD	1145467.29	624235.30	170.69	100.0	-	-	170.7	-	170.2	-	144.2	74.2	-	-
B-1152	331145	HEAVY HAUL ROAD	1145581.68	625227.34	117.05	100.0	117.0	116.5	114.0	-	-	-	110.2	45.0	-	-
B-1153	331145	HEAVY HAUL ROAD	1145568.97	625673.46	103.58	100.0	103.6	103.0	101.1	-	-	-	99.1	52.6	-	-

TABLE 2B
TEST LOCATION SUMMARY (ELEVATION)
VOGTLE UNITS 3&4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

Boring/CPT/Test Pit Number	Hammer Serial Number	Location/Remarks	Northing	Easting	Surface Elevation (ft, msl)	Total Depth (ft, bgs)	Top of Concrete Elevation (ft, msl)	Top of Crushed Stone Elevation (ft, msl)	Top of Fill Elevation (ft, msl)	Top of Alluvium Elevation (ft, msl)	Top of Barnwell Group Elevation (ft, msl)	Top of Utley Limestone Elevation (ft, msl)	Top of Blue Bluff Marl Elevation (ft, msl)	Top of Still Branch Elevation (ft, msl)	Top of Congaree Formation Elevation (ft, msl)	Top of Snapp Formation Elevation (ft, msl)
B-1154	331145	HEAVY HAUL ROAD	1145664.20	626216.06	95.08	98.8	-	-	95.1	73.6	-	-	-	28.6	-1.4	-
B-1155	331145	PUMPHOUSE	1147390.34	624936.42	84.95	150.0	-	-	-	84.9	-	-	-	38.4	8.4	-
B-1156	331145	PUMPHOUSE	1147302.50	624571.69	85.70	99.2	-	-	-	85.7	-	-	-	59.2	19.2	-
B-1157	331145	PUMPHOUSE	1147209.56	625062.18	86.77	150.0	-	-	-	86.8	-	-	55.3	37.5	17.4	-
B-1158	331145	PUMPHOUSE	1145194.92	626669.12	88.74	149.5	-	-	-	88.7	-	-	-	37.2	2.2	-
B-1159	331145	PUMPHOUSE	1147285.78	624954.51	88.70	150.0	-	-	-	88.7	-	-	52.2	47.2	22.2	-
B-1161	337153	PUMPHOUSE	1147363.37	624862.14	86.10	150.0	-	-	-	86.1	-	-	-	39.3	14.6	-
B-1162	337153	PUMPHOUSE	1147234.91	624815.03	85.55	200.0	-	-	-	85.6	-	-	-	43.6	9.6	-93.3
B-1163	337153	PUMPHOUSE	1147170.58	624938.82	85.95	150.0	-	-	-	86.0	-	-	54.0	33.5	13.0	-
B-1164	337153	PIPE LINE	1146994.84	624518.63	220.05	150.0	-	-	-	-	220.5	158.0	152.0	83.7	-	-
B-1166	337153	PIPE LINE	1147452.97	623961.56	203.40	100.0	-	-	-	-	203.4	-	141.4	-	-	-
B-1168	100	PIPE LINE	1147688.45	623467.78	202.20	100.0	-	-	-	-	202.2	-	145.2	-	-	-
B-1170	100	PIPE LINE	1147423.85	622953.71	223.29	98.9	-	-	-	-	223.3	-	-	-	-	-
B-1172	100	PIPE LINE	1146983.44	622538.70	249.49	100.0	-	-	-	-	249.5	-	-	-	-	-
B-1174	100	PIPE LINE	1146476.06	622228.06	225.81	100.0	-	-	-	-	225.8	-	-	-	-	-
B-1176	100	PIPE LINE	1145876.27	622195.21	221.48	35.0	-	-	-	-	221.5	-	-	-	-	-
B-1176A	100	PIPE LINE	1145878.82	622196.80	221.51	100.0	-	-	-	-	-	-	149.0	-	-	-
B-1185	165952	SWITCHYARD	1144716.64	622232.17	226.78	148.9	-	-	-	-	226.8	173.3	143.8	83.8	-	-
B-1186	331145	BATCH PLANT	1144711.88	618818.88	277.51	178.8	-	-	-	-	277.5	-	-	-	-	-
B-1187	331145	BATCH PLANT	1144710.19	619259.61	277.68	150.0	-	-	-	-	277.7	-	-	-	-	-
B-1189	331145	BATCH PLANT	1144459.72	618997.50	279.98	150.0	-	-	-	-	280.0	-	-	-	-	-
B-1191	337153	BATCH PLANT	1144301.60	619490.75	260.30	150.0	-	-	-	-	260.3	-	-	-	-	-
B-1192	331145	BATCH PLANT	1144217.44	618840.90	243.17	179.5	-	-	-	-	243.2	-	85.7	-	-	-
B-1193	337153	BATCH PLANT	1144091.49	619277.79	254.11	178.8	-	-	-	-	254.1	-	92.1	-	-	-
B-1194	100	BORROW AREA 4	1147504.69	621630.15	199.35	50.0	-	-	-	-	199.3	-	-	-	-	-
B-1195	100	BORROW AREA 4	1147574.84	622478.35	220.60	50.0	-	-	-	-	220.6	-	-	-	-	-
B-1196	100	BORROW AREA 4	1147286.63	622017.51	217.52	50.0	-	-	-	-	217.5	-	-	-	-	-
B-1197	100	BORROW AREA 4	1146874.74	622003.82	245.60	50.0	-	-	-	-	245.6	-	-	-	-	-
B-3001(DH)	211797	EAST POWER BLOCK	1142599.50	621799.64	218.40	420.0	-	-	218.4	-	216.9	143.9	129.9	61.4	3.9 (3)	-125.6 (3)
B-3002(DH)	200587	EAST POWER BLOCK	1142599.97	621872.49	218.89	249.9	-	-	218.9	-	216.9	142.9	133.4	65.9	-1.1 (3)	-
B-3002A	X02958	EAST POWER BLOCK	1142597.90	621878.80	218.83	21.5	-	-	-	-	-	-	-	-	-	-
B-3003(DH)	211797	EAST POWER BLOCK	1142599.85	621727.30	218.29	250.0	-	-	218.3	-	216.8	141.3	129.8	66.3	3.3 (3)	-
B-3004	270256	EAST POWER BLOCK	1142447.42	621867.12	218.51	160.0	-	-	218.5	-	216.4	140.5	132.1	61.5	-	-
B-3005	337153	EAST POWER BLOCK	1142717.58	621749.10	219.20	155.0	-	-	-	-	219.2	137.2	132.2	68.7	-	-
B-3006	200587	EAST POWER BLOCK	1142425.58	621924.99	217.59	155.0	-	-	217.6	-	216.1	139.1	129.6	65.6	-	-
B-3007	200587	EAST POWER BLOCK	1142718.50	621876.74	220.78	159.8	-	-	220.8	-	219.8	142.8	134.3	63.3	-	-
B-3008	200587	EAST POWER BLOCK	1142425.35	621773.01	217.86	155.0	-	-	217.9	-	216.7	-	130.9	65.9	-	-
B-3009	211797	EAST POWER BLOCK	1142484.48	621956.58	217.85	153.9	-	-	-	-	217.8	140.8	129.3	69.3	-	-

TABLE 2B
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VOGTLE UNITS 3&4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

Boring/CPT/Test Pit Number	Hammer Serial Number	Location/Remarks	Northing	Easting	Surface Elevation (ft, msl)	Total Depth (ft, bgs)	Top of Concrete Elevation (ft, msl)	Top of Crushed Stone Elevation (ft, msl)	Top of Fill Elevation (ft, msl)	Top of Alluvium Elevation (ft, msl)	Top of Barnwell Group Elevation (ft, msl)	Top of Utley Limestone Elevation (ft, msl)	Top of Blue Bluff Marl Elevation (ft, msl)	Top of Still Branch Elevation (ft, msl)	Top of Congaree Formation Elevation (ft, msl)	Top of Snapp Formation Elevation (ft, msl)
B-3010	270256	EAST POWER BLOCK	1142634.86	622024.97	219.69	160.0	-	-	219.7	-	219.5	143.7	133.7	62.7	-	-
B-3011	211797	EAST POWER BLOCK	1142776.68	622024.86	220.57	165.0	-	-	-	-	220.6	133.6	128.6	58.6	-	-
B-3012	165952	EAST POWER BLOCK	1142772.53	621911.91	220.40	159.3	-	-	-	-	220.4	-	133.4	63.4	-	-
B-3013(C)	337153	EAST POWER BLOCK	1142842.89	621825.35	220.51	155.0	-	-	-	-	220.5	137.5	135.0	70.0	-	-
B-3014	X02958	EAST POWER BLOCK	1142799.43	621748.55	220.26	158.7	-	-	220.3	-	213.3	139.3	132.3	68.3	-	-
B-3015	328848	EAST POWER BLOCK	1142956.89	621823.95	221.78	150.0	-	-	-	-	221.8	137.0	134.8	72.8	-	-
B-3016	200587	EAST POWER BLOCK	1142978.42	621913.43	222.48	150.0	-	-	-	-	222.5	142.5	134.0	-	-	-
B-3017	270256	EAST POWER BLOCK	1143034.35	621749.86	222.10	150.0	-	-	-	-	222.1	138.6	136.1	-	-	-
B-3018	328848	EAST POWER BLOCK	1142738.11	622115.75	219.80	155.0	-	-	-	-	219.8	142.8	132.8	67.8	-	-
B-3019	219505	EAST POWER BLOCK	1142977.36	622167.48	222.42	153.8	-	-	-	-	222.4	145.4	135.7	74.4	-	-
B-3020	328848	EAST POWER BLOCK	1142977.94	622074.78	222.44	149.4	-	-	-	-	222.4	140.4	135.4	75.4	-	-
B-3021	311025	EAST POWER BLOCK	1143070.22	622033.23	223.19	154.5	-	-	-	-	223.2	146.2	137.2	75.2	-	-
B-3022	200587	EAST POWER BLOCK	1143069.84	621873.43	223.86	150.0	-	-	-	-	223.9	-	136.9	77.4	-	-
B-3023	270256	EAST POWER BLOCK	1143061.11	621679.90	222.81	150.5	-	-	-	-	222.8	139.3	136.8	73.8	-	-
B-3024	337153	CIRC. WATER LINE	1142905.82	621399.65	220.16	150.0	-	-	-	-	220.2	-	138.2	-	-	-
B-3025	219907	CIRC. WATER LINE	1142460.42	621425.34	218.21	150.0	-	-	218.2	-	217.2	134.7	126.2	-	-	-
B-3026	219907	CIRC. WATER LINE	1142290.23	621403.73	215.76	149.2	-	-	215.8	-	215.3	137.3	130.3	-	-	-
B-3027	311025	CIRC. WATER LINE	1142058.69	621423.26	218.80	150.0	-	-	-	-	218.8	136.8	132.8	-	-	-
B-3028	311025	CIRC. WATER LINE	1141867.30	621408.76	220.12	150.0	-	-	-	-	220.1	133.1	128.1	-	-	-
B-3029	219505	CIRC. WATER LINE	1141881.50	621803.88	220.13	149.9	-	-	-	-	220.1	137.1	128.1	-	-	-
B-3030	311025	COOLING TOWER	1141699.94	621799.67	221.99	150.0	-	-	222.0	-	216.5	135.0	123.0	-	-	-
B-3031	219505	COOLING TOWER	1141398.73	622042.01	222.70	150.0	-	-	-	-	222.7	127.7	118.7	-	-	-
B-3032	219505	COOLING TOWER	1141158.18	621709.53	220.05	149.5	-	-	-	-	220.0	-	115.0	-	-	-
B-3033	219505	COOLING TOWER	1141405.26	621715.21	222.26	149.3	-	-	-	-	222.3	-	119.3	-	-	-
B-3034	219907	COOLING TOWER	1141399.76	621914.68	224.67	149.2	-	-	224.7	-	223.2	152.7	118.7	-	-	-
B-3035	328848	EAST POWER BLOCK	1142729.18	621675.37	219.34	150.5	-	-	-	-	219.3	141.3	129.3	69.3	-	-
B-3036	211797	EAST POWER BLOCK	1142441.55	621675.96	217.87	155.0	-	-	217.9	-	217.5	144.4	129.9	64.4	-	-
B-3037	270256	EAST POWER BLOCK	1143057.42	621768.87	222.94	150.0	-	-	-	-	222.9	139.9	135.9	73.9	-	-
B-3038	211797	CIRC. WATER LINE	1141882.97	621543.15	220.76	98.9	-	-	220.8	-	219.3	133.8	122.3	-	-	-
B-3039	331145	EAST POWER BLOCK	1142917.72	621753.54	219.17	150.0	-	-	-	-	219.2	-	137.7	72.2	-	-
B-4001(DH)	219907	WEST POWER BLOCK	1142599.53	621000.20	218.88	399.9	-	-	218.9	-	218.3	-	129.2	52.3	-0.1 (3)	-116.1 (3)
B-4002(DH)	219907	WEST POWER BLOCK	1142600.19	621072.22	219.06	250.0	-	-	219.1	-	218.3	137.1	127.1	57.4	-5.7 (3)	-
B-4003(DH)	219907	WEST POWER BLOCK	1142599.93	620927.13	218.99	249.8	-	-	219.0	-	218.4	-	127.0	53.0	-9.0 (3)	-
B-4004	219907	WEST POWER BLOCK	1142459.68	621046.56	218.45	150.0	-	-	218.5	-	217.5	131.0	127.5	-	-	-
B-4005	219907	WEST POWER BLOCK	1142714.97	620948.74	221.13	164.9	-	-	221.1	-	220.1	-	131.6	58.1	-	-
B-4006	219907	WEST POWER BLOCK	1142719.63	621076.36	220.98	165.0	-	-	-	-	221.0	-	131.5	61.0	-	-
B-4007	219907	WEST POWER BLOCK	1142426.19	621125.28	217.90	170.0	-	-	217.9	-	216.9	135.9	124.1	51.9	-	-
B-4008	219907	WEST POWER BLOCK	1142424.22	620973.78	218.08	169.4	-	-	218.1	-	217.3	131.1	126.1	53.1	-	-

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MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

Boring/CPT/Test Pit Number	Hammer Serial Number	Location/Remarks	Northing	Easting	Surface Elevation (ft, msl)	Total Depth (ft, bgs)	Top of Concrete Elevation (ft, msl)	Top of Crushed Stone Elevation (ft, msl)	Top of Fill Elevation (ft, msl)	Top of Alluvium Elevation (ft, msl)	Top of Barnwell Group Elevation (ft, msl)	Top of Utley Limestone Elevation (ft, msl)	Top of Blue Bluff Marl Elevation (ft, msl)	Top of Still Branch Elevation (ft, msl)	Top of Congaree Formation Elevation (ft, msl)	Top of Snapp Formation Elevation (ft, msl)
B-4009	328848	WEST POWER BLOCK	1142486.09	621156.86	217.91	164.9	-	-	217.9	-	217.6	136.4	125.4	55.9	-	-
B-4010	328848	WEST POWER BLOCK	1142667.58	621249.04	219.09	160.0	-	-	-	-	219.1	137.1	129.3	62.1	-	-
B-4011	328848	WEST POWER BLOCK	1142773.07	621236.36	219.08	150.0	-	-	-	-	219.1	-	136.1	72.1	-	-
B-4013(C)	337153	WEST POWER BLOCK	1142842.72	621020.31	222.24	165.0	-	-	-	-	222.2	-	133.7	62.2	-	-
B-4014	200587	WEST POWER BLOCK	1142831.99	620950.23	220.74	158.6	-	-	-	-	220.7	143.7	133.5	64.0	-	-
B-4015	328848	WEST POWER BLOCK	1142773.04	621115.24	220.11	155.0	-	-	-	-	220.1	-	135.6	68.1	-	-
B-4016	328848	WEST POWER BLOCK	1142996.39	621112.90	221.23	149.6	-	-	221.2	-	219.7	-	134.7	-	-	-
B-4017	219907	WEST POWER BLOCK	1143034.80	620949.92	220.94	150.0	220.9	-	-	-	220.4	154.9	131.9	-	-	-
B-4018	270256	WEST POWER BLOCK	1142735.45	621315.51	220.30	160.0	-	-	220.3	-	218.8	138.3	133.8	64.8	-	-
B-4019	328848	WEST POWER BLOCK	1142975.89	621371.41	221.76	160.0	-	-	-	-	221.8	144.8	134.8	64.8	-	-
B-4020	100	WEST POWER BLOCK	1142969.39	621280.02	222.79	89.4	-	-	222.8	-	221.8	150.8	135.8	-	-	-
B-4020A	337153	WEST POWER BLOCK	1142973.73	621280.34	222.56	165.0	-	-	-	-	-	-	-	62.1	-	-
B-4021	200587	WEST POWER BLOCK	1143092.61	621247.38	224.55	150.0	-	-	-	-	224.6	152.6	138.1	-	-	-
B-4022	328848	WEST POWER BLOCK	1143081.30	621073.52	220.71	148.7	-	-	-	-	220.7	139.2	133.2	-	-	-
B-4023	328848	WEST POWER BLOCK	1143062.36	620879.81	220.71	150.0	-	-	220.7	-	212.7	-	132.4	-	-	-
B-4024	328848	CIRC. WATER LINE	1142904.78	620601.81	223.80	150.0	-	-	223.8	-	222.8	145.8	132.8	-	-	-
B-4025	211797	CIRC. WATER LINE	1142510.01	620625.03	220.80	150.0	-	-	220.8	-	219.8	133.8	129.0	-	-	-
B-4026	211797	CIRC. WATER LINE	1142330.16	620597.72	221.54	150.0	-	-	-	-	221.5	136.5	124.5	-	-	-
B-4027	328848	CIRC. WATER LINE	1142180.05	620633.45	217.73	150.0	-	-	-	-	217.7	145.7	130.7	-	-	-
B-4028	219505	CIRC. WATER LINE	1141984.20	620587.77	219.57	150.0	-	-	-	-	219.6	145.1	130.6	-	-	-
B-4029	328848	CIRC. WATER LINE	1141874.85	620699.95	220.28	150.0	-	-	220.3	-	219.1	-	129.3	-	-	-
B-4030	219505	COOLING TOWER	1141676.68	620698.48	222.35	150.3	-	-	-	-	222.4	-	125.4	-	-	-
B-4031	211797	COOLING TOWER	1141399.83	620975.03	222.13	150.0	-	-	-	-	222.1	-	125.4	-	-	-
B-4032	211797	COOLING TOWER	1141118.48	620794.64	220.24	38.5	-	-	-	-	220.2	-	-	-	-	-
B-4032A	211797	COOLING TOWER	1141123.72	620794.66	220.22	150.0	-	-	-	-	-	-	119.2	-	-	-
B-4033	219505	COOLING TOWER	1141398.11	620348.78	219.93	149.4	-	-	-	-	219.9	142.9	132.9	-	-	-
B-4034	219505	COOLING TOWER	1141375.68	620795.35	222.79	150.0	-	-	222.8	-	222.3	-	124.3	-	-	-
B-4035	328848	WEST POWER BLOCK	1142729.08	620876.27	220.52	164.8	-	-	220.5	-	219.0	138.5	134.5	58.5	-	-
B-4036	219907	WEST POWER BLOCK	1142457.21	620876.25	218.05	170.0	-	-	218.0	-	217.4	136.0	127.0	52.0	-	-
B-5001	331145	230 KV SWITCHYARD	1146177.05	621807.73	218.99	150.0	-	-	-	-	219.0	-	117.0	-	-	-
B-5002	337153	230 KV SWITCHYARD	1146339.76	621808.33	241.53	150.0	-	-	-	-	241.5	-	114.5	-	-	-
B-5003	337153	230 KV SWITCHYARD	1146386.61	621574.70	227.94	148.7	-	-	-	-	227.9	-	110.9	-	-	-
B-5004	331145	230 KV SWITCHYARD	1146547.79	621568.38	236.61	149.8	-	-	-	-	236.6	119.6	114.6	-	-	-
B-6002	331145	BATCH PLANT	1144134.10	619626.88	247.90	150.0	-	-	-	-	247.9	-	-	-	-	-
B-6003	331145	BATCH PLANT	1143925.02	619422.80	229.76	179.4	-	-	-	-	229.8	-	93.0	-	-	-
B-6004	331145	BATCH PLANT	1143718.15	619473.34	231.59	150.0	-	-	-	-	231.6	-	94.8	-	-	-
B-6005	331145	BATCH PLANT	1143717.98	619873.77	242.59	178.8	-	-	-	-	242.6	-	95.1	-	-	-
B-6006	331145	CONSTRUCTION WAREHOUSE	1143069.79	620301.79	248.22	50.0	-	-	248.2	-	221.2	-	-	-	-	-

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B-6007	219907	CONSTRUCTION WAREHOUSE	1142730.73	620301.79	222.28	50.0	-	-	222.3	-	220.8	-	-	-	-	-
B-6008	331145	DECHLORINATION BUILDING	1145443.82	622676.36	240.11	150.0	-	-	-	-	240.1	-	147.6	-	-	-
B-6009	X02958	HEAVY HAUL ROAD	1144773.69	621748.18	246.04	100.0	-	-	-	-	246.0	154.0	-	-	-	-
B-6010	331145	500 KV SWITCHYARD	1143893.34	621059.21	263.39	169.3	-	-	-	-	263.4	146.4	136.9	-	-	-
B-6011	X02958	HEAVY HAUL ROAD	1144557.94	621261.73	244.00	120.0	-	-	-	-	244.0	152.0	137.0	-	-	-
B-6012	331145	HEAVY HAUL ROAD	1144256.66	620480.54	194.20	120.0	-	-	-	-	194.2	112.2	97.7	-	-	-
B-6013	331145	ACCESS ROAD	1143169.54	617234.87	251.14	50.0	-	-	-	-	251.1	-	-	-	-	-
B-6014	331145	ACCESS ROAD	1143168.15	618281.46	209.79	50.0	-	-	-	-	209.8	-	-	-	-	-
B-6015	331145	ACCESS ROAD	1143166.26	619317.85	221.52	50.0	-	-	-	-	221.5	-	-	-	-	-
B-6018	331145	LAY DOWN YARD	1142909.31	618366.55	204.66	50.0	-	-	-	-	204.7	-	-	-	-	-
B-6019	331145	LAY DOWN YARD	1142132.73	618344.49	163.94	50.0	-	-	-	-	163.9	-	-	-	-	-
B-6020	331145	LAY DOWN YARD	1142634.02	619555.91	221.48	130.0	-	-	221.5	-	218.5	109.5	99.5	-	-	-
B-6021	331145	LAY DOWN YARD	1142185.73	619103.41	209.80	120.0	-	-	-	-	209.8	112.8	96.8	-	-	-
B-6022	331145	LAY DOWN YARD	1142224.77	620040.33	216.23	90.0	-	-	216.2	-	205.7	-	134.2	-	-	-
B-6023	331145	LAY DOWN YARD	1141553.10	619177.88	202.77	50.0	-	-	202.8	-	194.3	-	-	-	-	-
B-6024	331145	LAY DOWN YARD	1141545.87	619997.72	216.07	50.0	-	-	216.1	-	212.6	-	-	-	-	-
B-6025	331145	LAY DOWN YARD	1140518.65	619189.73	172.69	50.0	-	-	172.7	-	171.2	-	125.7	-	-	-
B-6026	331145	LAY DOWN YARD	1140537.74	619900.15	215.46	50.0	-	-	215.5	-	214.5	-	-	-	-	-
B-6027	331145	NEW BARGE SLIP	1145779.35	626145.09	96.65	75.0	-	-	96.7	78.7	-	-	-	63.2	-	-
B-6028	331145	NEW BARGE SLIP	1145611.36	626062.41	95.70	50.0	-	-	95.7	77.2	-	-	-	-	-	-
B-6029	331145	NEW INTAKE ACCESS ROAD	1147771.71	623966.62	85.41	50.0	-	-	-	85.4	-	-	63.7	58.7	-	-
B-6030	331145	NEW INTAKE ACCESS ROAD	1147588.12	624222.62	88.37	50.0	-	-	-	88.4	-	-	-	46.4	-	-
C-1101	NA	HEAVY HAUL ROAD	1144357.46	620185.46	265.76	71.4	-	-	-	-	-	-	-	-	-	-
C-1102	NA	HEAVY HAUL ROAD	1144424.00	621333.43	267.61	51.4	-	-	-	-	-	-	-	-	-	-
C-1103	NA	HEAVY HAUL ROAD	1145011.61	622037.40	236.52	27.4	-	-	-	-	-	-	-	-	-	-
C-1104	NA	HEAVY HAUL ROAD	1145601.77	622746.95	230.19	77.1	-	-	-	-	-	-	-	-	-	-
C-1105	NA	HEAVY HAUL ROAD	1145483.00	623733.68	200.57	50.2	-	-	-	-	-	-	-	-	-	-
C-1106	NA	HEAVY HAUL ROAD	1145533.96	624748.08	138.02	20.0	-	-	-	-	-	-	-	-	-	-
C-1107	NA	PIPE LINE	1147233.91	624202.32	211.92	71.0	-	-	-	-	-	-	-	-	-	-
C-1108	NA	PIPE LINE	1147628.30	623753.23	200.89	59.6	-	-	-	-	-	-	-	-	-	-
C-1109	NA	PIPE LINE	1147622.11	623171.88	209.79	72.5	-	-	-	-	-	-	-	-	-	-
C-1110	NA	PIPE LINE	1147198.95	622740.32	242.39	72.3	-	-	-	-	-	-	-	-	-	-
C-1111	NA	PIPE LINE	1146753.15	622346.15	250.69	32.2	-	-	-	-	-	-	-	-	-	-
C-3001	NA	EAST POWER BLOCK	1142610.55	621726.54	218.37	70.1	-	-	-	-	-	-	-	-	-	-
C-3002	NA	EAST POWER BLOCK	1142606.51	621872.75	218.89	67.9	-	-	-	-	-	-	-	-	-	-
C-3003	NA	COOLING TOWER AREA	1141771.79	621801.62	221.38	82.0	-	-	-	-	-	-	-	-	-	-
C-3004	NA	COOLING TOWER AREA	1141542.00	621807.33	223.25	72.7	-	-	-	-	-	-	-	-	-	-
C-3005	NA	COOLING TOWER AREA	1141266.89	621792.33	221.27	101.1	-	-	-	-	-	-	-	-	-	-

TABLE 2B
TEST LOCATION SUMMARY (ELEVATION)
VOGTLE UNITS 3&4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

Boring/CPT/Test Pit Number	Hammer Serial Number	Location/Remarks	Northing	Easting	Surface Elevation (ft, msl)	Total Depth (ft, bgs)	Top of Concrete Elevation (ft, msl)	Top of Crushed Stone Elevation (ft, msl)	Top of Fill Elevation (ft, msl)	Top of Alluvium Elevation (ft, msl)	Top of Barnwell Group Elevation (ft, msl)	Top of Utley Limestone Elevation (ft, msl)	Top of Blue Bluff Marl Elevation (ft, msl)	Top of Still Branch Elevation (ft, msl)	Top of Congaree Formation Elevation (ft, msl)	Top of Snapp Formation Elevation (ft, msl)
C-4001	NA	WEST POWER BLOCK	1142599.87	620918.51	218.87	74.2	-	-	-	-	-	-	-	-	-	-
C-4002	NA	WEST POWER BLOCK	1142599.94	621063.82	219.08	82.2	-	-	-	-	-	-	-	-	-	-
C-4003	NA	COOLING TOWER AREA	1141784.64	620708.48	221.16	82.5	-	-	-	-	-	-	-	-	-	-
C-4004	NA	COOLING TOWER AREA	1141543.07	620597.67	219.99	77.1	-	-	-	-	-	-	-	-	-	-
C-4005	NA	COOLING TOWER AREA	1141249.90	620593.96	220.01	90.2	-	-	-	-	-	-	-	-	-	-
ER-1103CL	NA	SWITCHYARD	1144258.24	621799.94	279.61	NA	-	-	-	-	-	-	-	-	-	-
ER-1103N	NA	SWITCHYARD	1144706.50	621821.45	250.84	NA	-	-	-	-	-	-	-	-	-	-
ER-1103S	NA	SWITCHYARD	1143809.08	621785.19	258.96	NA	-	-	-	-	-	-	-	-	-	-
ER-1104CL	NA	SWITCHYARD	1143823.00	621536.77	257.11	NA	-	-	-	-	-	-	-	-	-	-
ER-1104E	NA	SWITCHYARD	1143820.75	621986.25	257.44	NA	-	-	-	-	-	-	-	-	-	-
ER-1104W	NA	SWITCHYARD	1143821.35	621086.95	258.33	NA	-	-	-	-	-	-	-	-	-	-
ER-1105	NA	230 KV SWITCHYARD	1146579.02	621622.05	243.09	NA	-	-	-	-	-	-	-	-	-	-
ER-1105	NA	230 KV SWITCHYARD	1146866.31	621276.81	226.62	NA	-	-	-	-	-	-	-	-	-	-
ER-1105	NA	230 KV SWITCHYARD	1146286.04	621961.60	226.63	NA	-	-	-	-	-	-	-	-	-	-
ER-1106	NA	230 KV SWITCHYARD	1146706.48	621999.64	256.15	NA	-	-	-	-	-	-	-	-	-	-
ER-1106	NA	230 KV SWITCHYARD	1146039.75	621401.84	164.68	NA	-	-	-	-	-	-	-	-	-	-
ER-1106	NA	230 KV SWITCHYARD	1146365.63	621702.00	237.53	NA	-	-	-	-	-	-	-	-	-	-
ER-3001	NA	COOLING TOWER	1141404.39	621932.86	223.41	NA	-	-	-	-	-	-	-	-	-	-
ER-3001	NA	COOLING TOWER	1141104.51	621935.56	219.44	NA	-	-	-	-	-	-	-	-	-	-
ER-3001	NA	COOLING TOWER	1141704.88	621929.94	221.43	NA	-	-	-	-	-	-	-	-	-	-
ER-3002	NA	COOLING TOWER	1141220.32	621725.95	220.47	NA	-	-	-	-	-	-	-	-	-	-
ER-3002	NA	COOLING TOWER	1141206.51	622025.58	220.02	NA	-	-	-	-	-	-	-	-	-	-
ER-3002	NA	COOLING TOWER	1141200.00	622324.03	220.49	NA	-	-	-	-	-	-	-	-	-	-
ER-4001	NA	COOLING TOWER	1141375.68	620795.35	222.79	NA	-	-	-	-	-	-	-	-	-	-
ER-4001	NA	COOLING TOWER	1141133.24	620798.50	220.41	NA	-	-	-	-	-	-	-	-	-	-
ER-4001	NA	COOLING TOWER	1141583.32	620797.68	223.47	NA	-	-	-	-	-	-	-	-	-	-
ER-4001	NA	COOLING TOWER	1140683.32	620798.70	215.33	NA	-	-	-	-	-	-	-	-	-	-
ER-4002	NA	COOLING TOWER	1141375.68	620795.35	222.79	NA	-	-	-	-	-	-	-	-	-	-
ER-4002	NA	COOLING TOWER	1141796.43	620333.57	220.73	NA	-	-	-	-	-	-	-	-	-	-
ER-4002	NA	COOLING TOWER	1140897.17	620349.94	219.86	NA	-	-	-	-	-	-	-	-	-	-
ER-4002CL	NA	COOLING TOWER	1141346.76	620341.65	219.84	NA	-	-	-	-	-	-	-	-	-	-
ER-4003	NA	CIRC. WATER LINE	1142180.05	620633.45	217.73	NA	-	-	-	-	-	-	-	-	-	-
ER-4003	NA	CIRC. WATER LINE	1142049.90	620629.66	219.61	NA	-	-	-	-	-	-	-	-	-	-
ER-4003	NA	CIRC. WATER LINE	1141575.77	620263.31	217.95	NA	-	-	-	-	-	-	-	-	-	-
ER-4003CL	NA	CIRC. WATER LINE	1141813.06	620446.25	220.68	NA	-	-	-	-	-	-	-	-	-	-
ER-4004	NA	CIRC. WATER LINE	1142060.89	621873.12	218.35	NA	-	-	-	-	-	-	-	-	-	-
ER-4004	NA	CIRC. WATER LINE	1142060.45	621423.14	218.46	NA	-	-	-	-	-	-	-	-	-	-
ER-4004	NA	CIRC. WATER LINE	1142057.75	620973.50	219.21	NA	-	-	-	-	-	-	-	-	-	-

TABLE 2B
TEST LOCATION SUMMARY (ELEVATION)
VOGTLE UNITS 3&4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

Boring/CPT/Test Pit Number	Hammer Serial Number	Location/Remarks	Northing	Easting	Surface Elevation (ft, msl)	Total Depth (ft, bgs)	Top of Concrete Elevation (ft, msl)	Top of Crushed Stone Elevation (ft, msl)	Top of Fill Elevation (ft, msl)	Top of Alluvium Elevation (ft, msl)	Top of Barnwell Group Elevation (ft, msl)	Top of Utley Limestone Elevation (ft, msl)	Top of Blue Bluff Marl Elevation (ft, msl)	Top of Still Branch Elevation (ft, msl)	Top of Congaree Formation Elevation (ft, msl)	Top of Snapp Formation Elevation (ft, msl)
REMI-1101CL	NA	UNIT 1 & 2 PROTECTED AREA	1143195.74	623156.24	217.83	NA	-	-	-	-	-	-	-	-	-	-
REMI-1101N	NA	UNIT 1 & 2 PROTECTED AREA	1143344.68	623156.02	218.60	NA	-	-	-	-	-	-	-	-	-	-
REMI-1101S	NA	UNIT 1 & 2 PROTECTED AREA	1143046.36	623156.23	217.87	NA	-	-	-	-	-	-	-	-	-	-
REMI-1102CL	NA	UNIT 1 & 2 PROTECTED AREA	1143432.28	623846.88	217.84	NA	-	-	-	-	-	-	-	-	-	-
REMI-1102E	NA	UNIT 1 & 2 PROTECTED AREA	1143433.70	623995.86	217.75	NA	-	-	-	-	-	-	-	-	-	-
REMI-1102W	NA	UNIT 1 & 2 PROTECTED AREA	1143431.62	623697.54	217.88	NA	-	-	-	-	-	-	-	-	-	-
REMI-3001EAST	NA	EAST POWER BLOCK	1142620.86	621877.24	218.54	NA	-	-	-	-	-	-	-	-	-	-
REMI-3001WEST	NA	EAST POWER BLOCK	1142620.58	621577.79	218.20	NA	-	-	-	-	-	-	-	-	-	-
REMI-4001EAST	NA	WEST POWER BLOCK	1142620.95	621150.17	218.71	NA	-	-	-	-	-	-	-	-	-	-
REMI-4001WEST	NA	WEST POWER BLOCK	1142624.08	620856.90	219.31	NA	-	-	-	-	-	-	-	-	-	-
TP-B-1108	NA	SWITCHYARD	1144312.49	621145.92	264.14	12.2	-	-	264.1	-	263.6	-	-	-	-	-
TP-B-1117	NA	SWITCHYARD	1143967.31	621627.50	269.50	9.0	-	-	269.5	-	267.5	-	-	-	-	-
TP-B-1121	NA	SWITCHYARD	1143591.74	620401.53	241.17	14.0	-	-	241.2	-	-	-	-	-	-	-
TP-B-1125	NA	SWITCHYARD	1143603.70	621685.81	240.61	11.0	-	-	240.6	-	-	-	-	-	-	-
TP-B-1185	NA	SWITCHYARD	1144634.18	622242.15	225.17	11.0	-	-	225.2	-	223.7	-	-	-	-	-
TP-B-1194	NA	BORROW AREA 4	1147500.59	621708.45	202.73	11.5	-	-	202.7	-	202.2	-	-	-	-	-
TP-B-1195	NA	BORROW AREA 4	1147648.39	622363.06	212.15	8.0	-	-	-	-	212.1	-	-	-	-	-
TP-B-1197	NA	BORROW AREA 4	1146874.40	622074.57	245.94	11.0	-	-	245.9	-	244.4	-	-	-	-	-

NOTES:

NA Not Applicable
bgs below ground surface
msl Mean Sea Level
(1) The layer elevations tabulated are from estimated depths based on the rig geologist/engineer's examination of samples under the direction of the Site Coordinator from depth intervals ranging from 2.5 to 10.0 feet. Other observations, including but not limited to drilling resistance and drilling fluid pressure were used to estimate the depth to layers between sample intervals. The elevations of certain layers encountered beneath alluvial soils in the floodplain of the Savannah River may not correlate to elevations of these layers in other areas of the site. This may be due to scouring and subsequent deposition of alluvial sediments by the Savannah River.

(2) Multiple drill rigs with different SPT Hammers were used to drill various portions of borings B-3001, B-3002, B-3003, B-4001, and B-3021. Please see the boring logs in Attachment B for details.

(3) Layer depth picks made by examination of geophysical logs in conjunction with samples.

Prepared By/Date: Alexandra Taylor/11-6-07 AT

Checked By/Date: Martha Lucia Herrera/11-6-07 MLH.

SOIL LAYER	DESCRIPTION
FILL	Man-placed fill soils of varying type and quality placed during previous construction activities on the site. This layer may include layers or zones of asphalt, concrete, or crushed stone.
ALLUVIUM	Soil formed by deposition from water after erosion and transportation from higher ground; typically occurs on the sides and bottom of drainage features. Most of these soils were encountered in or near the floodplain of the Savannah River.
CONCRETE	Concrete encountered at or near the surface that was placed for roadways and/or building slabs during previous construction activities at the site.
CRUSHED STONE	Crushed stone base material placed beneath concrete pavement encountered in borings (B-1152 and B-1153) drilled in the existing river intake access road.
BARNWELL GROUP • Tobacco Road Sand • Dry Branch Formation	Upper Eocene aged unit generally encountered near ground surface in most areas of the site, with the exception of boreholes drilled in low-lying areas along the floodplain of the Savannah River, where the Barnwell Soils had been eroded away. Soils most likely belonging to the Tobacco Road Sand and/or the Dry Branch Formation are reported as "Barnwell Group" on the soil test boring records and in the tables contained in this report. The Dry Branch Formation consists of three lithofacies, which include the Twiggs Clay, The Irwinton Sand, and the calcareous and fossiliferous Griffins Landing Member. The three Dry Branch lithofacies were observed in the soil test borings performed for this exploration. However, due to the interlayered nature of the Dry Branch lithofacies, and the generally wide sample intervals in the boreholes, identification of layer contacts was not practical. Therefore, the Dry Branch Formation lithofacies are reported as Barnwell Group on the soil test boring records and in the tables of this report. The Barnwell Group soils encountered during this investigation generally consist of very fine to very course grained sands with varying silt and clay content (SP, SP-SM, SM, SC, SP-SC, SC-SM) with some layers and zones of silt and clay (CL and ML). The Barnwell Group soils generally range in color from varying shades of red, yellow and brown. Distinct subhorizontal structure consisting of clay laminae, clay wisps, sand lenses and color banding is characteristic in many samples. The lower portion of the Barnwell Group section includes some calcareous soils which were generally sampled as sand with varying silt and clay content, silts, and clays. Large oyster shells, and other unidentified shell and phosphatic fragments were frequently observed. Some layers contained an appreciable concentration of shells. The bottom portion of the Barnwell Group often consists of pale olive green clayey silt with abundant distinct, very thin, subhorizontal yellowish brown sand lenses. Soft zones and zones of drilling fluid loss were occasionally encountered in the Barnwell Group.
BARNWELL GROUP • Clinchfield Formation-**Utley Limestone Member**	The Utley Limestone is a mostly calcareous sub-unit of the Barnwell Group, generally encountered below the Tobacco Road Sand and Dry Branch. This sub-unit of the Barnwell Group is reported as "Utley Limestone" on the soil test boring records and in the tables of this report. The Utley Limestone was present sporadically throughout the site. The Utley Limestone was exposed briefly during the excavation

TABLE 3
Soil Layer Descriptions
Page 1 of 4

SOIL LAYER	DESCRIPTION
	for the nearby VEGP Units 1 and 2 and was generally described as a grayish-yellow, well indurated, fossiliferous limestone which grades locally into coquina. Due to the well indurated nature of the Utley, split spoon sample recovery was generally low. The Utley was typically broken down by the split spoon sampler and laboratory testing indicated gravel-sized fragments (GP, GC, GM), or a sand with varying silt and clay content (SP, SM, SC). Minor amounts of silt and clay soils (CL and ML) were encountered in the Utley. Fossils consisting of large oyster shells and other unidentified shell and phosphatic fragments were also encountered. Well cemented zones were encountered which generally consisted of quartz sand and/or shell fragments with a carbonate cement matrix. Soft zones were also encountered in this layer and drilling fluid circulation loss occurred frequently. The Utley Limestone soils encountered during this exploration generally range in color from varying shades of yellow, brown, gray and green. Faint to distinct subhorizontal structure consisting of clay laminae and sand lenses are characteristic, especially in softer zones of the formation.
CLAIBORNE GROUP • Lisbon Formation – **Blue Bluff Member**	The Blue Bluff Member is a fine grained, calcareous sub-unit of the middle Eocene Lisbon Formation within the Claiborne Group, encountered below the Utley Limestone. This unit is referred to as the Blue Bluff Marl on the soil test boring records and in the tables of this report. The Blue Bluff Marl was present in most areas of the site, with the main exception being in low-lying areas along the floodplain of the Savannah River, where it had been eroded away. The Blue Bluff Marl encountered at the site is typically a very stiff to hard carbonate-rich clayey silt to silty clay with trace amounts of very fine to fine grained sand. One of the most distinguishing features of this formation is its dark greenish gray color, usually forming a distinct contact where captured in the split spoon samples. Faint to distinct, very thin laminations were observed in most samples. Other distinguishing features of the Blue Bluff Marl are the presence of shell and phosphatic fragments in localized vertical horizons and the abundance of partially cemented, well indurated layers (limestone) consisting of very fine grained to fine grained quartz sand with carbonate mud cement. Mechanical breakage by the split spoon sampler of the well indurated zones (limestone) often disclosed gravel sized particles in the laboratory test results.
CLAIBORNE GROUP • Still Branch Sand	The Still Branch Sand, also part of the middle Eocene Claiborne Group and underlying the Blue Bluff Member of the Lisbon Formation, is referred to as the Still Branch Formation on the soil test boring records and in the tables of this report. The Still Branch Formation observed in the test borings generally consists of dense to very dense, fine to medium grained sand with varying amounts of silt and clay (typically SM). The Still Branch Formation encountered at the site is also characterized by its dark greenish gray to almost black color most likely due to the presence of glauconite, resulting in a typically well-defined contact between it and the overlying Blue Bluff Marl where captured in the split spoon samples. In general, the sands become less glauconitic and therefore lighter in color with depth. The

TABLE 3
Soil Layer Descriptions

SOIL LAYER	DESCRIPTION
	lower part of the formation is typically more silt and/or clay rich. Occasional zones containing scattered shell fragments are encountered in the upper section of the Still Branch Formation.
CLAIBORNE GROUP • Congaree Formation	The Congaree Formation is also part of the middle Eocene Claiborne Group and is generally encountered immediately below the Still Branch Sand. It is referred to as the Congaree Formation on the soil test boring records and in the tables of this report. The Congaree Formation was encountered in the deeper borings within the proposed power block area and in the borings located in the Savannah River floodplain. The Congaree Formation observed in the test borings generally consists of dense to very dense, medium to coarse grained sand with layers of clay and silt. Occasional micaceous zones and thin beds of white kaolinitic clay are also present. Few of the borings contain minor amounts of carbonate in the form of carbonate mud and/or coarse grained calcareous concretions. Colors generally range in shades of green, gray, brown and white.. The contact between the Congaree Formation and the overlying Still Branch Formation is not well defined but is typically identified by a significant increase in density or hardness and grain size. Where available, borehole geophysical logs were used in conjunction with the samples to pick the top of the Congaree Formation.
SNAPP FORMATION	The Snapp Formation is Upper Paleocene in age and generally underlies the middle Eocene Congaree Formation. It is referred to as the Snapp Formation on the soil test boring records and in the tables of this report. The Snapp Formation was encountered in two of the deep test borings, B-3001 and B-4001, and in one of the borings located in the Savannah River floodplain, B-1162. The Snapp Formation observed in the test borings generally consists of hard, iron-stained, oxidized kaolinitic clay to very dense, fine to medium grained sand with minor amounts of clay. Colors generally range in shades of gray, brown, red and white. The contact between the Snapp Formation and the overlying Congaree Formation is typically identified by a significant increase in hardness and the presence of white kaolinitic clay with reddish brown to yellowish brown iron-staining. Where available, borehole geophysical logs were used in conjunction with the samples to pick the top of the Snapp Formation.

REFERENCES:

Huddleston, P.F., and Summerour, J.H., 1996, “The Lithostratigraphic Framework of the Uppermost Cretaceous and Lower Tertiary of Eastern Burke County, Georgia, Georgia Department of Natural Resources Bulletin 127, 94 p.

Appendix 2B, “Geology”, from “Final Safety Analysis Report” (FSAR) prepared for Vogtle Electric Generating Plant Units 1 and 2.

TABLE 3
Soil Layer Descriptions

NOTES:

The layer descriptions contained in Table 3 were prepared from the rig geologist's/engineer's examination of samples under the direction and review of the Site Coordinator taken at depth intervals ranging from 1.5 to 10 feet. MACTEC also visited nearby type localities of the Blue Bluff Marl, Utley Limestone, and Griffins Landing Member of the Dry Branch Formation exposed in bluffs along the Savannah River. The estimated depth and elevation to the layers encountered in the soil test borings are contained in Tables 2A and 2B of this report.

Prepared By/Date: Matt Cooke/7-31-07 MC WITH PERMISSION

Checked By: Alexandra Taylor/7-31-07 AT

TABLE 3
Soil Layer Descriptions

MAJOR DIVISIONS			GROUP SYMBOLS	TYPICAL NAMES
COARSE GRAINED SOILS (More than 50% of material is LARGER than No. 200 sieve size)	GRAVELS (More than 50% of coarse fraction is LARGER than the No. 4 sieve size)	CLEAN GRAVELS (Little or no fines)	GW	GRAVEL, well graded
			GP	GRAVEL, poorly graded
		GRAVELS WITH FINES (Appreciable amount of fines)	GM	GRAVEL, sand and silt
			GC	GRAVEL, clay
	SANDS (More than 50% of coarse fraction is SMALLER than the No. 4 sieve size)	CLEAN SANDS (Little or no fines)	SW	SAND, well graded
			SP	SAND, poorly graded
		SANDS WITH FINES (Appreciable amount of fines)	SM	SAND, silty
			SC	SAND, clayey
FINE GRAINED SOILS (More than 50% of material is SMALLER than the No. 200 sieve size)	SILTS AND CLAYS (Liquid limit LESS than 50)		ML	SILT, sandy or clayey, low plasticity
			CL	CLAY, low plasticity
			OL	SILT, organic or CLAY organic, low plasticity
	SILTS AND CLAYS (Liquid limit GREATER than 50)		MH	SILT, sandy or clayey, high plasticity
			CH	CLAY, high plasticity
			OH	CLAY, organic, or SILT, organic, high plasticity

BOUNDARY CLASSIFICATIONS: Soils possessing characteristics of two groups are designated by combinations of group symbols.

Correlation of Penetration Resistance with Relative Density and Consistency			
SAND & GRAVEL		SILT & CLAY	
No. of Blows	**Relative Density**	**No. of Blows**	**Consistency**
0 - 4	Very Loose	0 - 1	Very Soft
5 – 10	Loose	2 – 4	Soft
11 – 30	Medium Dense	5 – 8	Medium Stiff
31 - 50	Dense	9 – 15	Stiff
Over 50	Very Dense	16 - 30	Very Stiff
		Over 31	Hard

TABLE 4 (Page 1 of 2)
CERTAIN TERMS USED FOR SOIL DESCRIPTIONS ON gINT BORING LOGS IN ATTACHMENT B

MOISTURE CONDITION:

Dry	Absence of moisture, dusty, dry to the touch.
Damp	Slight moisture content, difficult to mold fines into ball.
Moist	Moisture evident but no visible water, fines can be molded into ball.
Wet	Visible free water, soil is usually below water table.

SAMPLE TYPE

SS	Split spoon sample
UD	Undisturbed sample (direct push or pitcher)
BK	Bulk Sample
AU	Hand Auger Cuttings

LINE TYPE

- - - - - - - - - -	Soil layer contact where contact was not observed in samples
————————	Soil layer contact where contact was observed in samples
. . . . .	Soil layer contact above and below samples with no recovery

Prepared By/Date: Matt Cooke/7-31-07 MC

WITH PERMISSION

Checked By/Date: Alexandra Taylor/7-31-07 AT

TABLE 4 (2 of 2)
CERTAIN TERMS USED FOR SOIL DESCRIPTIONS ON gINT BORING LOGS IN ATTACHMENT B

TABLE 5 (ALSO TABLE F-1, ATTACHMENT F)
SUMMARY OF SOIL TESTS
VOGTLE UNITS 3 & 4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

Source of Sample	Sample No.	Depth (ft)	Sample Type	Gravel (1) (%)	Sand (1) (%)	Fines (1) (%)	Silt (1) (%)	0.005 mm Clay (1) (%)	USCS(2)	Compaction Optimum Moisture (%)	Compaction Maximum Dry Density (pcf)	Natural Moisture Content (%) at e_o SPT	Natural Moisture Content (%) at e_o Triaxial, Compression or Direct Shear 1	2	3	Consolidation	Avg.	LL	PL	G_s	Dry Density (pcf) at e_o SPT	Dry Density (pcf) at e_o Triaxial, Compression or Direct Shear 1	2	3	Consolidation	Avg.	Wet Density Avg. (pcf)	pH	Chloride (mg/kg)	Sulfate (mg/kg)
B-1105	SS-1	0.0	SS	0.0	87.5	12.5			SM			8.3					8.3													
B-1105	SS-3	3.5	SS	0.0	66.7	33.3			SM			18.5					18.5													
B-1105	SS-4	6.0	SS	0.2	82.1	17.7			SM			12.5					12.5													
B-1105	SS-6	11.0	SS	0.0	80	20			SM			12.9					12.9													
B-1105	SS-8	18.5	SS	0.0	66.2	33.8			SC			23.8					23.8	69	19											
B-1105	SS-9	23.5	SS	0.0	77.5	22.5			SC			16.4					16.4													
B-1105	SS-11	33.5	SS	0.9	74.3	24.8			SM			14.8					14.8													
B-1105	SS-13	43.5	SS	0.7	89.8	9.5			SP-SM			15.1					15.1													
B-1108	SS-2	1.5	SS	0.2	75.6	24.2			SM																					
B-1108	SS-3	3.5	SS	NA	NA	8.8			SP-SM																					
B-1108	SS-4	6.0	SS	0.0	94.1	5.9			SP-SM																					
B-1108	SS-6	11.0	SS	0.0	88.9	11.1			SP-SC									41	20											
B-1108	SS-8	18.5	SS	1.0	69.8	29.2			SM																					
B-1108	SS-9	23.5	SS	NA	NA	8.4			SP-SM																					
B-1108	SS-11	33.5	SS	NA	NA	7.7			SP-SM																					
B-1108	SS-12	38.5	SS	0.0	83.4	16.6			SC									45	16											
B-1113	SS-2	1.5	SS	0.0	93.5	6.5			SP-SM																					
B-1113	SS-4	6.0	SS	NA	NA	6.1			SP-SM																					
B-1113	SS-5	8.5	SS	0.0	94.1	5.9			SP-SM																					
B-1113	SS-6	11.0	SS	NA	NA	6.0			SP-SM																					
B-1113	SS-8	18.5	SS	0.0	95.9	4.1			SP																					
B-1113	SS-10	28.5	SS	NA	NA	4.9			SP																					
B-1113	SS-11	33.5	SS	0.0	18.4	81.6	16.9	64.7	CL																					
B-1116	SS-2	1.5	SS	0.0	90.5	9.5			SP-SM			2.4					2.4													
B-1116	SS-4	6.0	SS	0.0	92.8	7.2			SP-SM			8.3					8.3													
B-1116	SS-6	11.0	SS	0.0	81.5	18.5			SC			8.5					8.5													
B-1116	SS-7	13.5	SS	0.0	75.1	24.9			SC			8.8					8.8													
B-1116	SS-9	23.5	SS	0.0	78.5	21.5			SC			17.1					17.1													
B-1116	SS-11	33.5	SS	0.4	84.6	15.0			SC			14.4					14.4													
B-1118	SS-5	8.5	SS	0.0	75.4	24.6			SC																					
B-1118	SS-8	18.5	SS	0.0	82.1	17.9			SC																					
B-1118	SS-10	28.5	SS	0.0	82.1	17.9			SC									83	32											
B-1121	SS-1	0.0	SS	0.0	81.6	18.4			SM			10.2					10.2													
B-1121	SS-3	3.5	SS	1.5	85.1	13.4			SM			13.3					13.3													
B-1121	SS-4	6.0	SS	0.0	75.0	25.0			SM			12.6					12.6													
B-1121	SS-6	11.0	SS	0.0	72.4	27.6			SC			18.6					18.6	35	13											
B-1121	SS-9	23.5	SS	0.0	84.6	15.4			SC			20.8					20.8	77	27											
B-1123	SS-2	1.5	SS	NA	NA	12.4			SM																					
B-1123	SS-3	3.5	SS	0.0	85.1	14.9			SM																					
B-1123	SS-4	6.0	SS	NA	NA	9.6			SP-SM																					
B-1123	SS-6	11.0	SS	0.0	78.3	21.7			SC									31	13											
B-1123	SS-7	13.5	SS	NA	NA	27.5			SC																					
B-1123	SS-8	18.5	SS	NA	NA	27.5			SC																					
B-1123	SS-10	28.5	SS	0.0	73.9	26.1			SC																					
B-1123	SS-12	38.5	SS	0.0	85.9	14.1			SC									63	23											
B-1124	SS-3	3.5	SS	NA	NA	10.8			SP-SM																					
B-1124	SS-5	8.5	SS	0.0	93.2	6.8			SP-SM																					
B-1124	SS-7	18.5	SS	NA	NA	20.5			SC																					

TABLE 5 (ALSO TABLE F-1, ATTACHMENT F)
SUMMARY OF SOIL TESTS
VOGTLE UNITS 3 & 4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

			Sample					0.005 mm		Compaction		Natural Moisture Content (%) at e_o									Dry Density (pcf) at e_o						Wet			
Source of	Sample	Depth	Type	Gravel [1]	Sand [1]	Fines [1]	Silt [1]	Clay [1]	USCS[2]	Optimum Moisture	Maximum Dry Density	SPT	Triaxial, Compression or Direct Shear			Consolidation	Avg.	LL	PL	G_s	SPT	Triaxial, Compression or Direct Shear			Consolidation	Avg.	Density Avg.	pH	Chloride	Sulfate
Sample	No.	(ft)		(%)	(%)	(%)	(%)	(%)		(%)	(pcf)		1	2	3							1	2	3			(pcf)		(mg/kg)	(mg/kg)
B-1124	SS-8	18.5	SS	0.0	75.2	24.8			SC			14.6					14.6	35	20											
B-1124	SS-10	28.5	SS	NA	NA	25.3			SC																					
B-1125	SS-2	1.5	SS	0.8	85.6	13.6			SM																					
B-1125	SS-4	6.0	SS	NA	NA	8.2			SP-SM																					
B-1125	SS-6	11.0	SS	NA	NA	13.5			SM																					
B-1125	SS-8	18.5	SS	0.0	82.7	17.3			SC									35	22											
B-1125	SS-10	28.5	SS	NA	NA	77.6			MH									121	58											
B-1127	SS-3	3.5	SS	0.0	77.1	22.9			SC			13.5					13.5	32	20											
B-1127	SS-6	11.0	SS	0.0	77.6	22.4			SC			16.1					16.1	46	22											
B-1127	SS-8	18.5	SS	0.0	90.5	9.5			SP-SM			9.7					9.7													
B-1127	SS-9	23.5	SS	0.0	80.6	19.4			SM			15.1					15.1													
B-1130	UD-1	28.5	UD	NA	NA	16.5			SC																					
B-1130	UD-2	33.5	UD						CL				33.5	29.4	28.9		30.6					85.1	90.8	91.4		89.1	116			
B-1130	UD-3	38.5	UD	NA	NA	6.7			SP-SC				16.9	16.9			16.9					96.8	96.4			96.6	113			
B-1131	UD-1	28.5	UD						SM				36.2	18.6			27.4					85.7	110.3			98.0	124			
B-1132	UD-2	33.5	UD						CL				34.3				34.3					88.2				88.2	118			
B-1132	UD-3	38.5	UD						CH				35.2			51.0	43.1	85	33			82.8			70.0	76.4	109			
B-1133	UD-1	28.0	UD	0.0	60.9	39.1			SM				25.0	27.2	17.3		23.2					97.2	89.3	100.9		95.8	118			
B-1133	UD-2	33.0	UD	NA	NA	14.4			SM				19.0				19.0					93.9				93.9	112			
B-1133	UD-3	38.5	UD	NA	NA	66.2			CL				38.2	42.9	42.9		41.3					79.5	77.0	75.8		77.4	109			
B-1136	UD-2	33.5	UD	NA	NA	19.9			SC-SM				20.9	18.1			19.5					95.8	104.9			100.4	120			
B-1136	UD-3	38.5	UD	NA	NA	36.9			SM							71.1	71.1	107	58						55.0	55.0	94			
B-1136	UD-4	43.5	UD						SM				68.5				68.5					58.5				58.5	99			
B-1138	SS-2	1.5	SS	0.0	65.5	34.5			SC			18.0					18.0													
B-1138	SS-4	6.0	SS	0.0	87.7	12.3			SM			13.0					13.0													
B-1138	SS-6	11.0	SS	0.0	94.4	5.6			SP-SM			13.3					13.3													
B-1138	SS-8	18.5	SS	1.1	81.1	17.8			SM			20.0					20.0													
B-1138	SS-10	28.5	SS	0.0	67.3	32.7			SC			31.4					31.4													
B-1139	UD-1	28.5	UD	0.0	81.9	18.1			SC			19.8					19.8													
B-1139	UD-2	33.5	UD	NA	NA	16.1			SC				19.3	25.0			22.2					106.3	88.7			97.5	119			
B-1139	UD-3	38.5	UD	NA	NA	30.7			SC									65	24											
B-1155	SS-3	3.5	SS	19.4	78.0	2.6			SP											2.65										
B-1155	SS-6	11.0	SS						CL									37	22	2.73										
B-1155	SS-10	28.5	SS						SP									NV	NP											
B-1155	SS-11	33.5	SS						MH									55	41											
B-1155	SS-14B	48.5	SS	0.0	95.7	4.3			SP			23.9					23.9			2.74										
B-1155	SS-18	68.5	SS	0.0	92.3	7.7	1.5	6.2	SP-SC			25.2					25.2													
B-1155	SS-21	83.5	SS	0.0	95.7	4.3			SP			14.0					14.0													
B-1155	SS-22	88.5	SS						CH									112	39											
B-1155	SS-25	103.5	SS	0.2	91.8	8.0	2.8	5.2	SP-SC			20.8					20.8													
B-1155	SS-27	113.5	SS						SP									NV	NP											
B-1155	SS-34	148.5	SS						CL									34	18											
B-1156	SS-4	6.0	SS	0.0	9.1	90.9	32.4	58.5	CH									100	39	2.76										
B-1156	SS-6	11.0	SS						ML									44	34	2.67										
B-1156	SS-8	18.5	SS						CH			32.2					32.2	61	22											
B-1156	SS-10	28.5	SS	0.0	93.5	6.5			SP-SC																					
B-1156	SS-12	48.5	SS						CL			35.9					35.9	39	17											
B-1156	SS-13	53.5	SS	0.0	92.5	7.5			SP-SM																					
B-1156	SS-16	68.5	SS	0.0	94.9	5.1	1.9	3.2	SP-SC																					

TABLE 5 (ALSO TABLE F-1, ATTACHMENT F)
SUMMARY OF SOIL TESTS
VOGTLE UNITS 3 & 4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

Source of Sample	Sample No.	Depth (ft)	Sample Type	Gravel (1) (%)	Sand (1) (%)	Fines (1) (%)	Silt (1) (%)	0.005 mm Clay (1) (%)	USCS(2)	Compaction: Optimum Moisture (%)	Compaction: Maximum Dry Density (pcf)	Natural Moisture Content (%) at e_o: SPT	Natural Moisture Content (%) at e_o: Triaxial, Compression or Direct Shear 1	2	3	Consolidation	Avg.	LL	PL	G_s	Dry Density (pcf) at e_o: SPT	Dry Density (pcf) at e_o: Triaxial, Compression or Direct Shear 1	2	3	Consolidation	Avg.	Wet Density Avg. (pcf)	pH	Chloride (mg/kg)	Sulfate (mg/kg)
B-1156	SS-18	78.5	SS	0.6	93.1	6.3			SP-SM																					
B-1156	SS-21	98.5	SS	4.4	83.5	12.1	6.1	6.0	SC-SM																					
B-1157	SS-3	3.5	SS	0.0	98.9	1.1			SP			17.5					17.5			2.66										
B-1157	SS-6	11.0	SS						ML									39	26	2.65										
B-1157	SS-8	18.5	SS						MH									59	42	2.56										
B-1157	SS-11	33.5	SS						CH									56	22											
B-1157	SS-14A	48.5	SS						CL									44	17											
B-1157	SS-16	58.5	SS	0.0	76.7	23.3			SC			32.9					32.9													
B-1157	SS-19	73.5	SS	0.0	88.7	11.3	1.8	9.5	SP-SC			33.7					33.7													
B-1157	SS-21	83.5	SS	0.5	96.2	3.3			SP			25.1					25.1													
B-1157	SS-25	103.5	SS	0.0	73.4	26.6	14.4	12.2	SC-SM			32.8					32.8													
B-1157	SS-26	108.5	SS						CL			26.7					26.7	43	20											
B-1159	SS-3	3.5	SS						CH									58	30	2.78										
B-1159	SS-6	11.0	SS						CH									50	28	2.58										
B-1159	SS-5	18.5	SS						ML									NV	NP	2.59										
B-1159	SS-8	18.5	SS						ML									NV	NP											
B-1159	SS-12	38.5	SS	45.1	34.5	20.4			GM																					
B-1159	SS-14	48.5	SS	0.0	84.8	15.2			SC																					
B-1159	SS-16	58.5	SS	0.0	88.3	11.7			SP-SC																					
B-1159	SS-22	88.5	SS						SP-SC									69	27											
B-1161	SS-3	3.5	SS						MH									56	32											
B-1161	SS-4	6.0	SS						CL									36	23											
B-1161	SS-6	11.0	SS						CL									40	25											
B-1161	SS-10	28.5	SS	0.9	94.9	4.2			SP											2.70										
B-1161	SS-11	33.5	SS						MH									78	41											
B-1161	SS-12	38.5	SS						MH									86	47	2.59										
B-1161	SS-14	48.5	SS	0.0	91.5	8.5			SP-SM																					
B-1161	SS-22	88.5	SS						CH									69	27											
B-1162	SS-3	3.5	SS						CH									58	28											
B-1162	SS-4	6.0	SS						MH									50	29											
B-1162	SS-6	11.0	SS						ML									NV	NP	2.76										
B-1162	SS-10	33.5	SS						CL									33	20											
B-1162	SS-11	38.5	SS						CL									37	20											
B-1162	SS-13A	48.5	SS	0.0	89.2	10.8			SP-SM																					
B-1162	SS-16	73.5	SS	0.0	93.9	6.1			SP-SC																					
B-1162	SS-20	93.5	SS						CH									87	33											
B-1162	SS-26	138.5	SS	0.2	85.9	13.9			SM																					
B-1162	SS-29	158.5	SS	1.6	63.6	34.8			SC																					
B-1162	SS-31	188.5	SS						CH									51	25											
B-1162	UD-1	13.5	UD						ML				45.5	38.7	38.1		40.8					74.4	82.8	82.4		79.9	112			
B-1162	UD-2	53.5	UD	0.0	95.2	4.8			SP							21.9	21.9	50	19	2.68					102.3	102.3	125			
B-1162	UD-3	58.5	UD						SM				27.0	23.8	23.7		24.8					93.8	96.0	96.3		95.4	119			
B-1162	UD-7	168.5	UD	0.3	81.6	19.1			SC							9.5	9.5	56	21	2.65					110.8	110.8	121			
B-1163	SS-2	1.5	SS						MH									65	35											
B-1163	SS-3	3.5	SS						MH									58	33											
B-1163	SS-10	28.5	SS						CH									68	29											
B-1163	SS-11	33.5	SS						CH									60	25											
B-1163	SS-12	38.5	SS						CH									64	30											
B-1163	SS-15	53.5	SS	0.0	95.3	4.7			SP																					

TABLE 5 (ALSO TABLE F-1, ATTACHMENT F)
SUMMARY OF SOIL TESTS
VOGTLE UNITS 3 & 4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

Source of Sample	Sample No.	Depth (ft)	Sample Type	Gravel (1) (%)	Sand (1) (%)	Fines (1) (%)	Silt (1) (%)	0.005 mm Clay (1) (%)	USCS(2)	Compaction Optimum Moisture (%)	Compaction Maximum Dry Density (pcf)	Natural Moisture Content (%) at e_o SPT	Triaxial, Compression or Direct Shear 1	Triaxial, Compression or Direct Shear 2	Triaxial, Compression or Direct Shear 3	Consolidation	Avg.	LL	PL	G_s	Dry Density (pcf) at e_o SPT	Triaxial, Compression or Direct Shear 1	Triaxial, Compression or Direct Shear 2	Triaxial, Compression or Direct Shear 3	Consolidation	Avg.	Wet Density Avg. (pcf)	pH	Chloride (mg/kg)	Sulfate (mg/kg)
B-1163	SS-19	73.5	SS	0.2	91.8	8.0			SP-SM																					
B-1163	SS-22	88.5	SS						CH									98	38											
B-1164	UD-1	28.0	UD						SP-SC				13.7	14.4	16.9		15.0	95	25			96.6	95.6	93.9		95.4	110			
B-1164	UD-2	38.0	UD	0.0	66.7	33.3			SC				25.5	25.4	34.2		28.4	70	27			88.2	91.3	82.7		87.4	112			
B-1164	UD-3	73.0	UD						CL				30.2				30.2					90.3				90.3	118			
B-1164	UD-4	98.0	UD	6.4	27.4	66.2			MH							26.4	26.4	66	34						90.8	90.8	115			
B-1164	UD-5	103.0	UD						CL				19.5				19.5					110.8				110.8	132			
B-1185	SS-2	1.5	SS	0.0	89.9	10.1			SP-SM			7.8					7.8													
B-1185	SS-4	6.0	SS	0.4	79.1	20.5			SC			11.0					11.0	46	15											
B-1185	SS-6	11.0	SS	0.0	72.0	28.0			SC			16.3					16.3	75	26											
B-1185	SS-11	33.5	SS	0.2	77.5	22.3			SC			34.4					34.4	96	33											
B-1186	SS-1	0.0	SS	0.0	90.8	9.2			SP-SM			6.9					6.9													
B-1186	SS-3	3.5	SS	0.0	90.6	9.4			SP-SM			8.8					8.8													
B-1186	SS-5	8.5	SS	0.0	76.2	23.8			SC			15.6					15.6													
B-1186	SS-7	13.5	SS	0.0	67.6	32.4			SC			19.3					19.3	57	22											
B-1186	SS-12	38.5	SS	0.0	78.2	21.8			SC-SM			23.6					23.6													
B-1189	SS-2	1.5	SS	0.0	92.6	7.4			SP-SM																					
B-1189	SS-4	6.0	SS	NA	NA	4.1			SP																					
B-1189	SS-6	11.0	SS	NA	NA	21.8			SC																					
B-1189	SS-7	13.5	SS	4.5	56.2	39.3			SC									53	27											
B-1189	SS-8	18.5	SS	NA	NA	37.6			SC									59	25											
B-1189	SS-10	28.5	SS	0.0	76.3	23.7			SM																					
B-1189	SS-12	38.5	SS	NA	NA	28.7			SC									42	22											
B-1189	SS-14	48.5	SS	0.0	91.4	8.6			SP-SM																					
B-1194	SS-1	0.0	SS	0.0	93.4	6.6			SP-SM																					
B-1194	SS-3	3.5	SS	0.0	92.9	7.1			SP-SM									NV	NP											
B-1194	SS-5	8.5	SS	0.0	77.9	22.1			SM									NV	NP											
B-1194	SS-7	13.5	SS	0.0	70.5	29.5			SM																					
B-1194	SS-9	23.5	SS	0.0	79.3	20.7			SC																					
B-1194	SS-11	33.5	SS	0.0	89.2	10.8			SP-SM																					
B-1194	SS-13	43.5	SS	0.0	88.2	11.8			SP-SC																					
B-1195	SS-2	1.5	SS	0.0	92.9	7.1			SP-SM			5.4					5.4	NV	NP											
B-1195	SS-4	6.0	SS	0.0	93.2	6.8			SP-SM			7.2					7.2	NV	NP											
B-1195	SS-6	11.0	SS	0.0	81.6	18.4			SC			14.5					14.5													
B-1195	SS-8	18.5	SS	0.0	77.2	22.8			SC			13.5					13.5													
B-1195	SS-10	28.5	SS	0.0	80.7	19.3			SC			19.7					19.7													
B-1195	SS-12	38.5	SS	0.0	74.8	25.2			SC			33.1					33.1													
B-1195	SS-14	48.5	SS	0.0	64.4	35.6			SC			39.8					39.8													
B-1196	SS-1	0.0	SS	0.0	93.0	7.0			SP-SM																					
B-1196	SS-3	3.5	SS	0.0	92.6	7.4			SP-SM																					
B-1196	SS-5	8.5	SS	0.0	93.3	6.7			SP-SM																					
B-1196	SS-7	13.5	SS	0.0	82.6	17.4			SM									NV	NP											
B-1196	SS-9	23.5	SS	0.6	81.0	18.4			SM									NV	NP											
B-1196	SS-11	33.5	SS	0.0	68.3	31.7			SC																					
B-1196	SS-13	43.5	SS	0.0	78.4	21.6			SC																					
B-1197	SS-2	1.5	SS	0.0	90.1	9.9			SP-SM			5.6					5.6	NV	NP											
B-1197	SS-4	6.0	SS	0.0	87.7	12.3			SM			14.2					14.2													
B-1197	SS-6	11.0	SS	0.0	86.2	13.8			SM			11.9					11.9	NV	NP											
B-1197	SS-8	18.5	SS	0.0	91.6	8.4			SP-SM			13.5					13.5													

TABLE 5 (ALSO TABLE F-1, ATTACHMENT F)
SUMMARY OF SOIL TESTS
VOGTLE UNITS 3 & 4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

Source of Sample	Sample No.	Depth (ft)	Sample Type	Gravel (1) (%)	Sand (1) (%)	Fines (1) (%)	Silt (1) (%)	0.005 mm Clay (1) (%)	USCS(2)	Compaction: Optimum Moisture (%)	Compaction: Maximum Dry Density (pcf)	Natural Moisture Content (%) at e_o: SPT	Triaxial, Compression or Direct Shear: 1	Triaxial, Compression or Direct Shear: 2	Triaxial, Compression or Direct Shear: 3	Consolidation	Avg.	LL	PL	G_s	Dry Density (pcf) at e_o: SPT	Triaxial, Compression or Direct Shear: 1	Triaxial, Compression or Direct Shear: 2	Triaxial, Compression or Direct Shear: 3	Consolidation	Avg.	Wet Density Avg. (pcf)	pH	Chloride (mg/kg)	Sulfate (mg/kg)
B-1197	SS-10	28.5	SS	0.0	89.5	10.5			SP-SM			17.1					17.1													
B-1197	SS-12	38.5	SS	0.0	91.9	8.1			SP-SM			5.9					5.9													
B-1197	SS-14	48.5	SS	0.0	56.7	43.3			SM			48.5					48.5													
B-3001	SS-2	1.5	SS	NA	NA	25.1			SM																					
B-3001	SS-4	6.0	SS	NA	NA	7.4			MH																					
B-3001	SS-6	11.0	SS	0.0	69.7	30.3			SM																					
B-3001	SS-7	13.5	SS	NA	NA	27.7			SM																					
B-3001	SS-8	18.5	SS	0.0	80.0	20.0			SM																					
B-3001	SS-10	28.5	SS	0.0	71.5	28.5			SM																					
B-3001	SS-11	33.5	SS	NA	NA	34.2			SM			29.7					29.7													
B-3001	SS-12	38.5	SS	0.0	74.3	25.7			SC																					
B-3001	SS-13	43.5	SS	NA	NA	6.1			SP-SM																					
B-3001	SS-15	53.5	SS	0.0	95.2	4.8			SP																					
B-3001	SS-16	58.5	SS	0.0	93.6	6.4			SP-SM																					
B-3001	UD-3	108.5	UD						CL							27.2	27.2								94.9	94.9	121			
B-3001	UD-4	113.5	UD	NA	NA	57.8			CH				23.9	33.1			28.5	63	33	2.66		94.3	86.7			90.5	116			
B-3001	UD-5	133.5	UD	NA	NA	67.5			CL				25.8			29.7	27.8	47	23	2.61		97.2			91.6	94.4	121			
B-3001	UD-6	153.5	UD						CL				24.8	26.6			25.7					99.3	97.5			98.4	124			
B-3001	UD-8	173.5	UD	NA	NA	11.6			SP-SC							24.2	24.2	43	24	2.65					99.1	99.1	123			
B-3001	UD-9	193.5	UD						SP-SC				28.1				28.1					95.0				95.0	122			
B-3001	UD-10	208.5	UD	NA	NA	17.0			SP-SC				21.2	21.5	21.5		21.4	74	28			106.0	105.4	99.4		103.6	126			
B-3001	UD-14	388.5	UD						CL				32.8	26.9	25.0		28.2					85.8	98.0	100.5		94.8	121			
B-3002	SS-3	3.5	SS	NA	NA	18.7			SM																					
B-3002	SS-4	6.0	SS	NA	NA	35.2			SC-SM																					
B-3002	SS-8	18.5	SS	NA	NA	17.5			SC-SM																					
B-3002	SS-12	38.5	SS	NA	NA	11.7			SP-SC																					
B-3002	SS-15	53.5	SS	NA	NA	6.3			SP-SC																					
B-3002	SS-17	63.5	SS	0.0	84.3	15.7			SC			47.0					47.0	137	31											
B-3002	SS-22	88.5	SS	0.0	2.5	97.5			MH			47.9					47.9	93	46											
B-3002	SS-25	108.5	SS	0.0	29.8	70.2			CH			33.4					33.4	93	35											
B-3002	UD-1	97.0	UD	NA	NA	75.1			MH				41.2	41.2	38.0		40.1	94	40			73.0	74.8	77.8		75.2	105			
B-3002	UD-2	113.5	UD	NA	NA	46.1			SM							39.3	39.3	76	35	2.65					73.0	73.0	102			
B-3003	SS-2	1.5	SS	NA	NA	33.3			SC																					
B-3003	SS-4	6.0	SS	NA	NA	18.9			SM																					
B-3003	SS-9	23.5	SS	NA	NA	14.7			SM																					
B-3003	SS-11	33.5	SS	NA	NA	55.3			ML																					
B-3003	SS-15	53.5	SS	NA	NA	10.1			SP-SM																					
B-3003	SS-16	58.5	SS	NA	NA	15.4			SM																					
B-3003	SS-22	88.5	SS	0.0	4.6	95.4			MH			42.3					42.3	98	45											
B-3003	SS-23	93.5	SS	0.0	11.7	88.3			MH			48.8					48.8	95	43											
B-3003	SS-24	113.5	SS	37.0	22.2	40.8			GM			22.0					22.0	60	32											
B-3003	SS-27	128.5	SS	0.0	23.3	76.7			CL			28.5					28.5	49	27											
B-3003	UD-2	103.0	UD						CL				33.9	24.4		37.6	32.0					84.7	99.8		75.0	86.5	114			
B-3003	UD-5	148.0	UD	NA	NA	63.7			CH				30.0	27.4	17.7		25.0	55	21			89.1	96.2	108.8		98.0	122			
B-3003	UD-6	163.0	UD	NA	NA	20.8			SC				20.4	19.9	20.0		20.1					99.4	101.2	102.7		101.1	121			
B-3004	SS-3	3.5	SS	NA	NA	24.1			SC																					
B-3004	SS-5	8.5	SS	NA	NA	27.6			SC																					
B-3004	SS-8	18.5	SS	NA	NA	7.3			SP-SM																					
B-3004	SS-12	38.5	SS	0.0	77.2	22.8			SC			28.2					28.2	63	31											

TABLE 5 (ALSO TABLE F-1, ATTACHMENT F)
SUMMARY OF SOIL TESTS
VOGTLE UNITS 3 & 4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

			Sample					0.005 mm		Compaction		Natural Moisture Content (%) at e_o									Dry Density (pcf) at e_o					Wet			
Source of	Sample	Depth	Type	Gravel [1]	Sand [1]	Fines [1]	Silt [1]	Clay [1]	USCS[2]	Optimum Moisture	Maximum Dry Density	SPT	Triaxial, Compression or Direct Shear			Consolidation	Avg.	LL	PL	G_s	SPT	Triaxial, Compression or Direct Shear			Consolidation	Avg.	Density Avg.	pH	Chloride	Sulfate
Sample	No.	(ft)		(%)	(%)	(%)	(%)	(%)		(%)	(pcf)		1	2	3							1	2	3			(pcf)		(mg/kg)	(mg/kg)
B-3004	SS-14	48.5	SS	NA	NA	13.9			SC																					
B-3004	SS-16	58.5	SS	NA	NA	5.3			SP-SM																					
B-3004	SS-23	98.5	SS	0.0	7.4	92.6			MH			32.2					32.2	80	43											
B-3004	SS-26	118.5	SS	0.0	27.2	72.8			MH			39.1					39.1	60	32											
B-3004	UD-1	93.0	UD						MH				42.0	39.9	31.2		37.7	97	53			74.6	76.1	79.5		76.7	106			
B-3004	UD-2	113.0	UD						CL				21.6				21.6					102.2				102.2	124			
B-3005	SS-3	3.5	SS	0.0	76.5	23.5			SC			14.1					14.1	34	18											
B-3005	SS-6	11.0	SS	0.0	86.0	14.0			SM			5.9					5.9	NV	NP											
B-3005	SS-9	23.5	SS	0.0	87.2	12.8			SC			12.2					12.2	47	21											
B-3005	SS-14	48.5	SS	0.0	90.4	9.6			SP-SM			19.2					19.2	NV	NP											
B-3005	SS-23	103.5	SS	0.0	10.4	89.6			MH			38.5					38.5	109	47											
B-3005	SS-25	123.5	SS	1.4	23.5	75.1			CH			29.8					29.8	50	24											
B-3005	UD-1	93.0	UD	NA	NA	92.7			CL-ML				46.8	49.6	55.0		50.5					69.2	69.7	66.2		68.4	103			
B-3005	UD-3	118.0	UD						CL-ML				42.4	38.4	27.6		36.1					77.5	81.0	95.2		84.6	115			
B-3005	UD-4	138.0	UD	NA	NA	65.0			CH				16.8	27.0	25.0		22.9	52	24			103.0	97.3	100.1		100.1	123			
B-3006	SS-4	6.0	SS	NA	NA	31.1			SC-SM																					
B-3006	SS-7	13.5	SS	NA	NA	30.5			SC-SM																					
B-3006	SS-9	23.5	SS	NA	NA	19.1			SM																					
B-3006	SS-15	53.5	SS	NA	NA	7.1			SP-SC																					
B-3006	SS-23	93.5	SS	0.0	29.3	70.7			MH			31.9					31.9	67	39											
B-3006	SS-25	103.5	SS	0.0	8.8	91.2			MH			42.2					42.2	80	42											
B-3006	SS-30	128.5	SS	0.0	22.1	77.9			CL			27.9					27.9	43	26											
B-3006	SS-33	143.5	SS	46.0	24.6	29.4			GC			14.3					14.3	49	20											
B-3007	SS-5	8.5	SS	NA	NA	20.1			SM																					
B-3007	SS-9	23.5	SS	NA	NA	19.7			SM																					
B-3007	SS-14	48.5	SS	NA	NA	10.5			SP-SC																					
B-3007	SS-23	93.5	SS	0.0	8.6	91.4			MH			42.2																		
B-3007	SS-26	108.5	SS	0.0	10.8	89.2			CH			41.6					41.6	112	64											
B-3008	SS-2	1.5	SS	0.0	77.8	22.2			SC																					
B-3008	SS-3	3.5	SS	10.4	62.0	27.6			SC																					
B-3008	SS-4	6.0	SS	0.0	75.5	24.5			SC																					
B-3008	SS-6	11.0	SS	0.0	79.1	20.9	1.9	19.0	SC			15.1					15.1											5.09	140.0	19.0
B-3008	SS-9	23.5	SS	0.0	89.6	10.4			SP-SM																					
B-3008	SS-10	28.5	SS	0.0	73.4	26.6			SC									55	25											
B-3008	SS-11	33.5	SS	NA	NA	31.5			SC																					
B-3008	SS-12	38.5	SS	NA	NA	31.1			SC																					
B-3008	SS-13	43.5	SS	0.0	85.5	14.5			SC									42	23											
B-3008	SS-15	53.5	SS	NA	NA	5.4			SP-SC																					
B-3008	SS-16	58.5	SS	0.0	84.4	15.6	1.1	14.5	SC			31.4					31.4											5.53	390.0	14.0
B-3008	SS-27	113.5	SS						MH									58	36											
B-3008	SS-29	123.5	SS						CH									61	30									7.49	150.0	2400.0
B-3009	SS-4	6.0	SS	NA	NA	21.3			SM																					
B-3009	SS-9	23.5	SS	NA	NA	6.8			SP-SM																					
B-3009	SS-13	43.5	SS	NA	NA	14.8			SM																					
B-3009	SS-24	98.5	SS	0.0	28.6	71.4			CH			32.4					32.4	65	31											
B-3009	SS-30	128.5	SS	0.0	34.1	65.9			CL			24.8					24.8	46	22											
B-3010	SS-3	3.5	SS	NA	NA	21.6			SC																					
B-3010	SS-5	8.5	SS	NA	NA	39.3			SC																					
B-3010	SS-8	18.5	SS	NA	NA	8.3			SP-SM																					

TABLE 5 (ALSO TABLE F-1, ATTACHMENT F)
SUMMARY OF SOIL TESTS
VOGTLE UNITS 3 & 4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

Source of Sample	Sample No.	Depth (ft)	Sample Type	Gravel (1) (%)	Sand (1) (%)	Fines (1) (%)	Silt (1) (%)	0.005 mm Clay (1) (%)	USCS(2)	Compaction: Optimum Moisture (%)	Compaction: Maximum Dry Density (pcf)	Natural Moisture Content (%) at e_o: SPT	Triaxial, Compression or Direct Shear: 1	2	3	Consolidation	Avg.	LL	PL	G_s	Dry Density (pcf) at e_o: SPT	Triaxial, Compression or Direct Shear: 1	2	3	Consolidation	Avg.	Wet Density Avg. (pcf)	pH	Chloride (mg/kg)	Sulfate (mg/kg)
B-3010	SS-25	108.5	SS	0.0	9.2	90.8			CL			36.8					36.8													
B-3010	SS-28	123.5	SS	9.5	34.4	56.1			CL			22.0					22.0	41	21											
B-3010	SS-31	143.5	SS	1.1	36.7	62.2			CL			24.7					24.7	45	21											
B-3010	UD-1	103.5	UD						CL				6.0	43.3	41.3		30.2					103.4	76.4	78.7		86.2	110			
B-3010	UD-2	128.5	UD	NA	NA	75.4			CL				28.6				28.6					93.0				93.0	120			
B-3013	UD-1	98.5	UD	NA	NA	60.4			MH							31.4	31.4	66	37	2.66					84.2	84.2	111			
B-3013	UD-2	101.0	UD						CL-ML				10.6	40.2	26.9		25.9			2.66		100.2	77.2	84.5		87.3	109			
B-3013	UD-3	118.5	UD						GP				15.2				15.2					94.0				94.0	108			
B-3013	UD-4	121.0	UD						CL-ML				41.5	28.9	23.8		31.4					86.6	92.4	91.4		90.1	118			
B-3015	SS-3	3.5	SS	NA	NA	16.0			SM			12.4					12.4													
B-3015	SS-5	8.5	SS	NA	NA	42.1			SC			15.0					15.0													
B-3015	SS-12	38.5	SS	NA	NA	29.0			SC-SM			38.2					38.2													
B-3015	SS-14	48.5	SS	NA	NA	9.8			SP-SM			24.0					24.0													
B-3015	SS-25	103.5	SS	0.0	14.5	85.5			MH			42.4					42.4	50	30											
B-3015	UD-1C	121.5	UD	NA	NA	62.2			CH				30.4			27.6	29.0	52	27			89.1			91.1	90.1	116			
B-3015	UD-2	143.5	UD						CH				17.6				17.6					111.7				111.7	131			
B-3017	SS-1	0.0	SS	0.0	85.6	14.4			SC																					
B-3017	SS-3	3.5	SS	NA	NA	15.8			SC																					
B-3017	SS-5	8.5	SS	0.0	81.0	19.0			SM																					
B-3017	SS-7	13.5	SS	NA	NA	31.6			SC																					
B-3017	SS-9	23.5	SS	NA	NA	95.5			MH									107	52											
B-3017	UD-1	93.0	UD	NA	NA	68.7			MH							34.3	34.3	65	36	2.63					84.9	84.9	114			
B-3017	UD-2	113.5	UD						CL				21.7	24.1	24.5		23.4					102.1	99.6	99.0		100.2	124			
B-3018	SS-4	6.0	SS	NA	NA	13.9			SC			8.1					8.1													
B-3018	SS-7	13.5	SS	NA	NA	19.9			SC			15.9					15.9													
B-3018	SS-10	28.5	SS	NA	NA	19.3			SM			20.1					20.1													
B-3018	SS-25	108.5	SS	0.0	30.9	69.1			MH			32.0					32.0	66	33											
B-3018	SS-28	128.5	SS	NA	NA	75.1			CL			24.9					24.9	46	22											
B-3018	SS-31	143.5	SS	1.8	22.6	75.6			CL			28.3					28.3	34	23											
B-3018	UD-2	113.5	UD	NA	NA	75.7			MH				21.4				21.4	63	37			99.7				99.7	121			
B-3018	UD-3	148.5	UD						CL				23.1				23.1					102.2				102.2	126			
B-3019	SS-3	3.5	SS	NA	NA	34.5			SM																					
B-3019	SS-8	18.5	SS	0.5	81.7	17.8			SM																					
B-3019	SS-25	108.5	SS	0.0	15.1	84.9			MH			38.9					38.9	71	35											
B-3019	SS-26	123.5	SS	0.0	14.4	85.6			CH			38.4					38.4	55	28											
B-3019	UD-1	93.5	UD						ML				55.1	43.4	43.8		47.4					68.4	75.2	75.2		72.9	107			
B-3019	UD-2	113.5	UD	NA	NA	30.3			GM							45.5	45.5								71.2	71.2	104			
B-3019	UD-3	118.5	UD						GM				28.8				28.8					92.4				92.4	119			
B-3020	UD-1	103.5	UD						CL-ML				32.8				32.8					83.4				83.4	111			
B-3020	UD-2	133.5	UD						CL-ML				52.9	28.9	29.2		37.0					80.1	91.6	93.0		88.2	120			
B-3021	UD-1	103.5	UD						CL-ML				30.2				30.2					88.6				88.6	115			
B-3021	UD-2	148.5	UD	0.5	91.6	7.9			SP-SM				20.7	15.8	16.0		17.5					98.1	101.8	98.0		99.3	117			
B-3021	UD-3	153.5	UD	0.0	87.5	12.5			SM			19.3					19.3													
B-3023	UD-1	93.0	UD						CL				29.9				29.9					89.3				89.3	116			
B-3023	UD-2	103.0	UD	NA	NA	44.8			CH							32.4	32.4	62	26						87.1	87.1	115			
B-3023	UD-3	113.0	UD						CL				38.5	25.6			32.1					80.4	94.5			87.5	115			
B-3023	UD-4	148.0	UD						SP-SM				24.5				24.5					102.1				102.1	127			
B-3024	SS-3	3.5	SS	NA	NA	13.5			SM																					
B-3024	SS-6	11.0	SS	NA	NA	24.9			SM																					

TABLE 5 (ALSO TABLE F-1, ATTACHMENT F)
SUMMARY OF SOIL TESTS
VOGTLE UNITS 3 & 4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

Source of Sample	Sample No.	Depth (ft)	Sample Type	Gravel (1) (%)	Sand (1) (%)	Fines (1) (%)	Silt (1) (%)	0.005 mm Clay (1) (%)	USCS(2)	Compaction: Optimum Moisture (%)	Compaction: Maximum Dry Density (pcf)	Natural Moisture Content (%) at e_o: SPT	Natural Moisture Content (%) at e_o: Triaxial, Compression or Direct Shear 1	2	3	Consolidation	Avg.	LL	PL	G_s	Dry Density (pcf) at e_o: SPT	Dry Density (pcf) at e_o: Triaxial, Compression or Direct Shear 1	2	3	Consolidation	Avg.	Wet Density Avg. (pcf)	pH	Chloride (mg/kg)	Sulfate (mg/kg)
B-3024	SS-8	18.5	SS	NA	NA	30.8			SC																					
B-3024	SS-11	33.5	SS	NA	NA	41.6			SC																					
B-3024	SS-15	53.5	SS	NA	NA	13.2			SC																					
B-3024	SS-17	63.5	SS	NA	NA	8.4			SP-SC																					
B-3024	UD-1	97.0	UD						CH				40.0	40.1	36.7		38.9					80.0	76.7	80.8		79.2	110			
B-3024	UD-2	117.5	UD	NA	NA	69.1			CH							45.9	45.9	67	32						73.1	73.1	107			
B-3025	SS-4	6.0	SS	NA	NA	22.8			SC																					
B-3025	SS-7	13.5	SS	NA	NA	24.0			SC																					
B-3025	SS-10	28.5	SS	NA	NA	15.2			SC																					
B-3025	SS-11	33.5	SS	NA	NA	38.3			SC																					
B-3025	UD-1	103.5	UD						ML				38.6				38.6					78.6				78.6	109			
B-3025	UD-2	133.5	UD	NA	NA	64.9			CH				22.7				22.7	53	23			99.0				99.0	122			
B-3026	UD-1	28.5	UD	NA	NA	24.0			SC				19.1	30.8	12.8		20.9					97.8	81.5	100.7		93.3	112			
B-3026	UD-2	33.5	UD						SC				25.9	26.1	29.8		27.3					89.0	88.8	86.9		88.3	112			
B-3026	UD-3	38.5	UD	NA	NA	20.6			SC				23.3	22.4	18.5		21.4					94.1	99.1	101.4		98.2	119			
B-3030	UD-1	30.0	UD	0.0	91.9	8.1			SP-SM																					
B-3030	UD-2	35.0	UD	0.0	93.3	6.7			SP-SM			22.0					22.0			2.72	91					91.0	111	7.51	120.0	120.0
B-3030	UD-3	40.0	UD						SC				16.9	14.7	14.6		15.4					104.6	107.3	101.1		104.3	120			
B-3031	UD-1	30.0	UD	0.0	95.7	4.3			SP			22.0					22.0													
B-3031	UD-2	33.5	UD	0.0	76.6	23.4			SM			17.4					17.4													
B-3031	UD-3	38.5	UD						SP-SM				18.6	18.0	25.2		20.6					90.6	91.3	85.8		89.2	108	4.74	120.0	120.0
B-3033	UD-1	13.5	UD	0.0	91.5	8.5			SP-SM											2.69								5.96	110.0	110.0
B-3033	UD-2	28.5	UD	0.0	85.3	14.7			SM			24.9					24.9													
B-3033	UD-3	33.5	UD	0.0	90.4	9.6			SP-SM			18.3					18.3													
B-3033	UD-4	38.5	UD						SM				24.8	16.5	18.1		19.8			2.72		90.9	86.7	85.5		87.7	105			
B-3034	UD-1	28.5	UD	0.0	89.5	10.5			SP-SM			17.2					17.2													
B-3034	UD-2	33.5	UD	0.0	85.8	14.2			SM																			8.80	120.0	120.0
B-3034	UD-4	118.5	UD	0.4	30.6	69.0			MH				32.8	27.2	28.3		29.4	68	36			87.5	95.0	90.9		91.1	118			
B-3034	UD-5	138.5	UD	0.1	84.4	15.5			SC							16.4	16.4	40	19	2.65					95.8	95.8	111			
B-3035	UD-1	95.5	UD	NA	NA	90.8			MH							42.5	42.5	93	47						75.8	75.8	108			
B-3035	UD-2	103.5	UD						CL-ML				30.1	25.9	26.3		27.4					84.1	88.4	86.1		86.2	110			
B-3035	UD-3	133.5	UD						CL-ML							28.3	28.3								93.3	93.3	120			
B-3035	UD-4	148.5	UD						CL-ML				17.9				17.9					109.8				109.8	129			
B-3036	SS-3	3.5	SS	1.0	79.8	19.2			SM			13.3					13.3													
B-3036	SS-6	11.0	SS	2.0	82.2	15.8			SM			13.3					13.3													
B-3036	SS-11	33.5	SS	0.0	53.1	46.9	7.8	39.1	SC																					
B-3036	SS-13	43.5	SS	0.0	87.1	12.9			SM			39.5					39.5													
B-3036	SS-18	68.5	SS	0.0	76.5	23.5	5.6	17.9	SC																					
B-3036	SS-21	83.5	SS	0.4	37.5	62.1			ML			60.1					60.1													
B-3036	SS-22	88.5	SS	8.2	45.4	46.4			SM			48.4					48.4													
B-3036	SS-24	98.5	SS						MH									69	37											
B-3036	SS-27	113.5	SS						CH									51	26											
B-3036	SS-35	153.5	SS	9.4	81.1	9.5			SP-SC			20.0					20.0													
B-4001	SS-2	1.5	SS	NA	NA	12.6			SM																					
B-4001	SS-5	8.5	SS	0.0	74.6	25.4			SC									49	24											
B-4001	SS-7	13.5	SS	0.0	91.8	8.2			SP-SM																					
B-4001	SS-9	23.5	SS	NA	NA	57.2			MH									110	49											
B-4001	SS-11	33.5	SS	NA	NA	21.2			SC																					
B-4001	SS-13	43.5	SS	0.0	72.3	27.7			SM									50	30											

TABLE 5 (ALSO TABLE F-1, ATTACHMENT F)
SUMMARY OF SOIL TESTS
VOGTLE UNITS 3 & 4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

Source of Sample	Sample No.	Depth (ft)	Sample Type	Gravel (1) (%)	Sand (1) (%)	Fines (1) (%)	Silt (1) (%)	0.005 mm Clay (1) (%)	USCS(2)	Compaction Optimum Moisture (%)	Compaction Maximum Dry Density (pcf)	Natural Moisture Content (%) at e_o SPT	Triaxial, Compression or Direct Shear 1	2	3	Consolidation	Avg.	LL	PL	G_s	Dry Density (pcf) at e_o SPT	Triaxial, Compression or Direct Shear 1	2	3	Consolidation	Avg.	Wet Density Avg. (pcf)	pH	Chloride (mg/kg)	Sulfate (mg/kg)
B-4001	SS-23	93.5	SS	0.9	17.4	81.7			MH			45.3					45.3	101	54											
B-4001	SS-25	108.5	SS	0.0	33.0	67.0			MH			29.8					29.8	51	29											
B-4001	SS-28	138.5	SS	0.0	20.2	79.8			ML			26.7					26.7	38	25											
B-4001	SS-29	143.5	SS	0.0	25.8	74.2			CH			30.2					30.2	56	26											
B-4001	SS-31	153.5	SS	0.0	26.8	73.2			CL			28.2					28.2	44	22											
B-4001	UD-3	148.5	UD	NA	NA	44.1			SM				15.2				15.2	96	59			111.0				111.0	128			
B-4001	UD-5	133.5	UD	NA	NA	57.1			CL				15.4				15.4	50	28			114.9				114.9	133			
B-4001	UD-6	158.5	UD						ML				25.9				25.9					97.1				97.1	122			
B-4001	UD-7	178.5	UD	0.9	73.9	25.2			SM				40.0	25.4			32.7					78.8	96.9			87.8	116			
B-4001	UD-8	198.5	UD	NA	NA	19.7			SM			27.9																		
B-4001	UD-9	238.5	UD	NA	NA	69.6			ML				18.6				18.6	45	27			112.5				112.5	133			
B-4001	UD-10	248.5	UD						SP							16.5	16.5			2.65					106.7	106.7	124			
B-4001	UD-12	298.5	UD	NA	NA	13.7			SM				12.6				12.6					101.3				101.3	114			
B-4001	UD-13	308.5	UD	NA	NA	67.4			CL							16.7	16.7	49	22	2.68					114.2	114.2	133			
B-4001	UD-14	348.5	UD						CH				19.9				19.9					106.1				106.1	127			
B-4002	SS-4	6.0	SS	NA	NA	8.0			SP-SM																					
B-4002	SS-7	13.5	SS	NA	NA	47.2			SC																					
B-4002	SS-9	23.5	SS	NA	NA	13.3			SM																					
B-4002	SS-11	33.5	SS	NA	NA	36.2			SC																					
B-4002	SS-16	58.5	SS	NA	NA	10.2			SP-SM																					
B-4002	SS-19	73.5	SS	NA	NA	6.2			SP-SM																					
B-4002	SS-23	103.5	SS	0.0	19.3	80.7			MH			40.2					40.2	81	38											
B-4002	SS-26	118.5	SS	0.0	13.0	87.0			CH			38.9					38.9	78	35											
B-4002	SS-30	143.5	SS	0.0	30.4	69.6			CL			30.3					30.3	49	23											
B-4002	UD-1	98.5	UD						ML				40.4	33.1	41.7		38.4					75.5	80.3	75.1		77.0	106			
B-4002	UD-2	123.5	UD						ML							40.9	40.9			2.65					76.4	76.4	108			
B-4002	UD-3	173.5	UD	NA	NA	5.4			SP-SM				17.5	18.3			17.9					105.0	104.8			104.9	124			
B-4002	UD-4	233.5	UD						CL				27.7				27.7					94.1				94.1	120			
B-4003	SS-4	11.0	SS	NA	NA	20.8			SC																					
B-4003	SS-10	28.5	SS	0.0	71.2	28.8			SC			22.4					22.4													
B-4003	SS-14	48.5	SS	NA	NA	20.3			SC																					
B-4003	SS-24	98.5	SS	NA	NA	94.1			MH			50.8					50.8	98	51											
B-4003	SS-26	108.5	SS	1.6	35.4	63.0			MH			30.2					30.2	61	32											
B-4003	SS-32	148.5	SS	0.0	25.7	74.3			CL			25.5					25.5	45	25											
B-4003	UD-1	117.0	UD						ML				25.2				25.2					98.4				98.4	123			
B-4003	UD-2	136.0	UD						ML							34.3	34.3								85.4	85.4	115			
B-4003	UD-5	201.0	UD	NA	NA	18.3			SM				29.7	31.6	32.3		31.2			2.7		88.2	88.3	82.7		86.4	113			
B-4003	UD-6	248.5	UD	NA	NA	17.8			SM																					
B-4004	SS-5	8.5	SS	0.0	75.1	24.9			SM			14.7					14.7			2.75										
B-4004	SS-6	11.0	SS	NA	NA	22.5			SM																					
B-4004	SS-8	18.5	SS	0.0	92.8	7.2			SP-SM			12.6					12.6			2.69										
B-4004	SS-11	33.5	SS	0.0	43.1	56.9	9.3	47.6	CL																					
B-4004	SS-14	48.5	SS	0.0	74.0	26.0	5.8	20.2	SC																			5.47	150.0	20.0
B-4004	SS-16	58.5	SS	NA	NA	11.3			SP-SC																					
B-4004	SS-17	63.5	SS	10.5	70.9	18.6			SC			31.5					31.5													
B-4004	SS-19	73.5	SS	2.1	81.4	16.5			SM			24.2					24.2											8.89	130.0	20.0
B-4004	SS-22	88.5	SS	9.5	82.3	8.2			SW-SM			24.0					24.0											9.24	130.0	30.0
B-4004	SS-24	98.5	SS						MH			46.2					46.2	95	50											
B-4004	SS-25	103.5	SS	0.0	5.7	94.3			MH			50.7					50.7	97	50											

TABLE 5 (ALSO TABLE F-1, ATTACHMENT F)
SUMMARY OF SOIL TESTS
VOGTLE UNITS 3 & 4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

Source of Sample	Sample No.	Depth (ft)	Sample Type	Gravel (1) (%)	Sand (1) (%)	Fines (1) (%)	Silt (1) (%)	0.005 mm Clay (1) (%)	USCS(2)	Compaction: Optimum Moisture (%)	Compaction: Maximum Dry Density (pcf)	Natural Moisture Content (%) at e_o: SPT	Natural Moisture Content (%) at e_o: Triaxial, Compression or Direct Shear 1	2	3	Consolidation	Avg.	LL	PL	G_s	Dry Density (pcf) at e_o: SPT	Dry Density (pcf) at e_o: Triaxial, Compression or Direct Shear 1	2	3	Consolidation	Avg.	Wet Density Avg. (pcf)	pH	Chloride (mg/kg)	Sulfate (mg/kg)
B-4004	SS-28	118.5	SS						MH									57	32									7.62	150.0	2600.0
B-4004	SS-31	133.5	SS						MH									66	33											
B-4004	SS-34	148.5	SS	0.0	26.3	73.7			CL			31.0					31.0	49	25											
B-4005	SS-5	8.5	SS	NA	NA	13.3			SM																					
B-4005	SS-8	18.5	SS	NA	NA	31.9			SC																					
B-4005	SS-12	38.5	SS	NA	NA	36.9			SC																					
B-4005	SS-24	98.5	SS	0.0	3.1	96.9			MH			52.2					52.2	92	45											
B-4005	SS-26	113.5	SS	1.4	33.7	64.9			MH			31.6					31.6	63	34											
B-4005	SS-29	128.5	SS	0.0	12.1	87.9			MH			45.1					45.1	68	33											
B-4005	SS-32	143.5	SS	0.0	28.5	71.5			CL			21.3					21.3	41	23											
B-4006	SS-6	11.0	SS	NA	NA	24.5			SC																					
B-4006	SS-9	23.5	SS	NA	NA	18.5			SC																					
B-4006	SS-15	53.5	SS	NA	NA	19.3			SM																					
B-4006	SS-29	123.5	SS	0.0	17.8	82.2			MH			45.2					45.2	73	35											
B-4006	SS-33	143.5	SS	0.0	35.3	64.7			CH			17.7					17.7	53	23											
B-4007	SS-3	3.5	SS	NA	NA	19.0			SC																					
B-4007	SS-10	28.5	SS	NA	NA	15.6			SC																					
B-4007	SS-16	58.5	SS	NA	NA	12.5			SC																					
B-4007	SS-25	108.5	SS	0.0	26.0	74.0			MH			40.3					40.3	87	48											
B-4007	SS-28	128.5	SS	1.7	22.8	75.5			MH			38.3					38.3	66	34											
B-4007	UD-1	98.5	UD	NA	NA	59.3			MH				30.7	45.2			38.0	95	52			80.2	71.7			76.0	104			
B-4007	UD-2	118.5	UD	9.4	39.5	51.1			CH							18.8	18.8	53	27						102.1	102.1	121			
B-4007	UD-3	153.5	UD						ML				32.2	26.6	24.6		27.8					87.9	95.6	100.2		94.6	121			
B-4008	SS-4	6.0	SS	NA	NA	26.8			SC																					
B-4008	SS-7	13.5	SS	NA	NA	18.0			SM																					
B-4008	SS-12	38.5	SS	0.0	65.4	34.6			SM			45.9					45.9	81	53											
B-4008	SS-24	108.5	SS	0.0	20.7	79.3			MH			46.4					46.4	96	43											
B-4008	SS-31	153.5	SS	0.0	32.3	67.7			CL			26.6					26.6	47	23											
B-4008	UD-1	98.5	UD						ML				32.6				32.6					71.8				71.8	95			
B-4008	UD-2	103.5	UD						ML				38.1				38.1					80.7				80.7	111			
B-4008	UD-3	123.5	UD	0.0	6.4	94.6			MH							44.6	44.6	76	35	2.61					72.8	72.8	105			
B-4008	UD-4	128.5	UD						ML				27.2				27.2					95.8				95.8	122			
B-4009	SS-5	8.5	SS	NA	NA	19.9			SM																					
B-4009	SS-8	18.5	SS	NA	NA	17.9			SC-SM																					
B-4009	SS-12	38.5	SS	0.0	57.8	42.2			SM			47.0					47.0	45	27											
B-4009	SS-17	63.5	SS	0.0	90.2	9.8			SP-SM																					
B-4009	SS-24	98.5	SS	0.0	6.7	93.3			MH			45.4					45.4	109	62											
B-4009	SS-28	123.5	SS	0.0	20.9	79.1			MH			31.0					31.0	62	32											
B-4009	SS-34	158.5	SS	0.6	29.5	69.9			CH			26.5					26.5	60	26											
B-4009	UD-1	108.0	UD	NA	NA	89.1			MH				41.7	42.5	40.9		41.7	89	48			77.4	76.8	78.1		77.4	110			
B-4009	UD-2	148.0	UD						CL-ML				28.7	27.3	30.4		28.8					93.1	95.9	92.6		93.8	121			
B-4010	SS-5	8.5	SS	NA	NA	19.1			SM																					
B-4010	SS-10	28.5	SS	NA	NA	21.4			SC-SM																					
B-4010	SS-14	48.5	SS	NA	NA	23.7			SC-SM																					
B-4010	SS-25	108.5	SS	0.0	17.9	82.1			MH			38.2					38.2	67	39											
B-4010	SS-29	143.5	SS	0.0	30.1	69.9			CH			31.1					31.1	56	26											
B-4011	SS-5	8.5	SS	NA	NA	23.9			SM																					
B-4011	SS-9	23.5	SS	NA	NA	18.4			SC-SM																					
B-4011	SS-15	53.5	SS	NA	NA	10.2			SP-SM																					
B-4011	SS-23	93.5	SS	0.0	24.0	76.0			MH			30.8					30.8	71	46											

TABLE 5 (ALSO TABLE F-1, ATTACHMENT F)
SUMMARY OF SOIL TESTS
VOGTLE UNITS 3 & 4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

Source of Sample	Sample No.	Depth (ft)	Sample Type	Gravel (1) (%)	Sand (1) (%)	Fines (1) (%)	Silt (1) (%)	0.005 mm Clay (1) (%)	USCS(2)	Compaction: Optimum Moisture (%)	Compaction: Maximum Dry Density (pcf)	Natural Moisture Content (%) at e_o: SPT	Natural Moisture Content (%) at e_o: Triaxial, Compression or Direct Shear 1	Triaxial 2	Triaxial 3	Consolidation	Avg.	LL	PL	G_s	Dry Density (pcf) at e_o: SPT	Dry Density (pcf) at e_o: Triaxial, Compression or Direct Shear 1	Triaxial 2	Triaxial 3	Consolidation	Avg.	Wet Density Avg. (pcf)	pH	Chloride (mg/kg)	Sulfate (mg/kg)
B-4011	SS-26	108.5	SS	0.0	15.9	84.1			MH			37.2					37.2	65	36											
B-4013	SS-4	6.0	SS	NA	NA	12.4			SM																					
B-4013	SS-10	21.0	SS	NA	NA	31.1			SC																					
B-4013	SS-16	36.0	SS	NA	NA	56.6			CL																					
B-4013	SS-22	51.0	SS	NA	NA	13.1			SC																					
B-4013	UD-2	101.0	UD						CL-ML				38.0				38.0					80.6				80.6	111			
B-4013	UD-3	128.5	UD						CL-ML				27.5	29.6	30.0		29.0					91.3	87.8	85.4		88.2	114			
B-4014	SS-2	1.5	SS	0.0	90.8	9.2			SP-SM																					
B-4014	SS-4	6.0	SS	NA	NA	4.5			SP																					
B-4014	SS-6	11.0	SS	NA	NA	25.7			SC																					
B-4014	SS-8	18.5	SS	0.3	74.2	25.5			SC									51	19											
B-4014	SS-10	28.5	SS	0.0	64.5	35.5			SC-SM																					
B-4014	SS-12	38.5	SS	NA	NA	67.4			MH									95	49											
B-4014	SS-14	48.5	SS	NA	NA	13.1			SC																					
B-4014	SS-16	58.5	SS	0.0	87.2	12.8			SC																					
B-4014	SS-25	103.5	SS	0.0	32.2	67.8			MH			29.9					29.9	56	35											
B-4015	SS-3	3.5	SS	NA	NA	14.9			SM																					
B-4015	SS-16	58.5	SS	NA	NA	6.8			SP-SM																					
B-4015	SS-22	88.5	SS	4.8	13.6	81.6			MH			41.1					41.1	83	49											
B-4015	SS-25	103.5	SS	0.0	17.9	82.1			CH			34.8					34.8	86	37											
B-4015	SS-32	138.5	SS	0.0	25.0	75.0			CL			21.0					21.0	44	21											
B-4016	SS-24	98.5	SS	1.2	19.1	79.7			MH			44.3					44.3	88	45											
B-4017	SS-4	6.0	SS	NA	NA	27.1			SC																					
B-4017	SS-9	23.5	SS	NA	NA	17.0			SC																					
B-4017	SS-30	138.5	SS	0.0	25.3	74.7			CL			34.7					34.7	40	24											
B-4017	UD-1	96.0	UD						ML				62.1				62.1					69.4				69.4	113			
B-4017	UD-3	116.0	UD						ML				23.5				23.5					99.3				99.3	123			
B-4018	UD-1	93.5	UD						CL				42.5	43.9	44.0		43.5					74.4	75.1	95.5		81.7	117			
B-4018	UD-3	103.0	UD						CL				28.2	24.8			26.5					92.2	99.3			95.7	121			
B-4018	UD-4	128.5	UD	NA	NA	81.8			CL							21.3	21.3	35	23			35.0	23.0		97.8	97.8	119			
B-4018	UD-5	138.5	UD						CL				28.9	23.6	24.0		25.5					91.8	98.6	99.3		96.5	121			
B-4022	SS-6	11.0	SS	NA	NA	24.8			SC																					
B-4022	SS-15	53.5	SS	NA	NA	11.4			SP-SC																					
B-4023	SS-3	3.5	SS	NA	NA	30.4			SC																					
B-4023	SS-9	23.5	SS	NA	NA	19.3			SC																					
B-4026	SS-4	6.0	SS	NA	NA	11.0			SP-SM																					
B-4026	SS-7	13.5	SS	NA	NA	28.4			SC-SM																					
B-4026	SS-11	33.5	SS	NA	NA	22.8			SM																					
B-4026	SS-15	53.5	SS	NA	NA	23.8			SC-SM																					
B-4030	UD-1	13.5	UD	0.0	89.3	10.7			SP-SM				12.2	9.7			11.0			2.72		100.5	97.4			99.0	110			
B-4030	UD-2	28.5	UD	0.0	91.5	8.5			SP-SM			12.5					12.5													
B-4030	UD-3	33.5	UD	0.0	90.4	9.6			SP-SM																					
B-4030	UD-5	103.0	UD						CL											2.68										
B-4030	UD-6	105.0	UD						CL				29.8	30.7	35.6		32.0					91.7	89.4	112.8		97.9	130			
B-4031	UD-1	28.5	UD	0.0	82.4	17.6			SM																					
B-4031	UD-2	33.5	UD						SM				15.8	13.5	13.8		14.4					103.7	107.2	107.2		106.0	121			
B-4031	UD-3	38.5	UD						SM				21.1	17.6			19.4					96.7	94.7			95.7	114			
B-4032	UD-1	28.5	UD	0.0	77.1	22.9			SM				22.8	31.6			27.2					101.3	89.6			95.5	121			
B-4032	UD-2	33.5	UD	NA	NA	11.1			SM				27.3	11.6			19.5					96.3	108.1			102.2	122			

TABLE 5 (ALSO TABLE F-1, ATTACHMENT F)
SUMMARY OF SOIL TESTS
VOGTLE UNITS 3 & 4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

Source of Sample	Sample No.	Depth (ft)	Sample Type	Gravel (1) (%)	Sand (1) (%)	Fines (1) (%)	Silt (1) (%)	0.005 mm Clay (1) (%)	USCS(2)	Compaction: Optimum Moisture (%)	Compaction: Maximum Dry Density (pcf)	Natural Moisture Content (%) at e_o: SPT	Triaxial, Compression or Direct Shear: 1	2	3	Consolidation	Avg.	LL	PL	G_s	Dry Density (pcf) at e_o: SPT	Triaxial, Compression or Direct Shear: 1	2	3	Consolidation	Avg.	Wet Density Avg. (pcf)	pH	Chloride (mg/kg)	Sulfate (mg/kg)
B-4032A	UD-1	38.5	UD	0.0	96.7	3.3			SP			19.2					19.2													
B-4033	UD-1	28.5	UD	0.0	88.9	11.1			SP-SM				15.7	19.4			17.6					92.2	90.2			91.2	107	6.26	140.0	110.0
B-4033	UD-2	33.5	UD	0.0	63.4	36.6			SC-SM			22.8					22.8													
B-4033	UD-3	38.5	UD						SP-SC				26.8	26.0	22.4		25.1					82.1	81.5	88.0		83.9	105	6.73	120.0	120.0
B-4034	UD-1	28.5	UD	0.0	86.6	13.4			SM			18.0					18.0													
B-4034	UD-3	38.5	UD						SP-SC									NV	NP											
B-4034	UD-4	108.5	UD						MH				28.5				28.5					92.7				92.7	119			
B-4034	UD-5	113.5	UD	23.9	19.9	56.2			MH				33.5	29.7	20.5		27.9	53	31			87.1	90.2	108.4		95.2	121			
B-4034	UD-6	143.5	UD	0.0	38.1	61.9			CL							26.4	26.4	47	26	2.74					94.2	94.2	119			
B-4035	UD-1	98.5	UD						CL-ML				46.3	43.1	37.3		42.2					70.5	74.1	79.9		74.8	106			
B-4035	UD-2	103.5	UD	NA	NA	83.8			MH				36.4			37.2	36.8	86	50			79.9			79.6	79.7	109			
B-4035	UD-3	148.5	UD	0.0	33.6	66.4			CL			24.3					24.3	43	22		98.7					98.7	123			
B-6020	SS-2	1.5	SS	0.0	70.9	29.1			SC									53	27											
B-6020	SS-4	6.0	SS	0.0	90.1	9.9			SP-SM									NV	NP											
B-6020	SS-6	11.0	SS	0.0	76.6	23.4			SC									47	25											
B-6020	SS-14	48.5	SS	0.0	58.4	41.6			SM			44.3					44.3	111	60											
B-6020	SS-16	58.5	SS	0.0	65.7	34.3			SM			46.1					46.1	139	78											
B-6021	SS-4	6.0	SS	0.0	73.3	26.7			SC									41	22											
B-6021	SS-7	13.5	SS	0.0	66.4	33.6			SM									47	28											
B-6022	SS-12	38.5	SS	0.0	52.7	47.3			SM			41.8					41.8	82	41											
B-6022	SS-14	48.5	SS	0.0	81.9	18.1			SC			27.4					27.4	68	29											
B-6023	SS-5	8.5	SS	0.0	83.0	17.0			SC									36	17											
B-6027	SS-3	7.5	SS	7.4	85.0	7.6			SP-SM			21.2					21.2											8.52	100.0	100.0
B-6027	SS-5	12.5	SS	15.4	74.7	9.9			SP-SM			16.3					16.3											8.22	170.0	100.0
B-6027	SS-7	20.0	SS	0.0	52.2	47.8			SM			24.3					24.3													
B-6027	SS-8	23.5	SS	1.7	51.8	46.5			SM			22.9					22.9													
B-6027	SS-10	33.5	SS	0.0	78.2	21.8			SM			17.3					17.3													
B-6027	SS-11	38.5	SS	0.0	93.3	6.7			SP-SM			23.8					23.8													
B-6027	SS-13	48.5	SS	0.5	90.8	8.7			SP-SM			29.5					29.5													
B-6027	SS-14	53.5	SS	0.0	77.5	22.5			SM			23.8					23.8	46	29											
B-6027	SS-15	58.5	SS	0.0	78.8	21.2			SM			32.4					32.4	45	29											
B-6027	SS-16	63.5	SS	0.0	91.2	8.8			SW-SM			24.8					24.8													
B-6028	SS-3	3.5	SS	0.0	89.2	10.8			SP-SM			9.5					9.5											6.91	130.0	99.0
B-6028	SS-5	8.5	SS	0.0	88.4	11.6			SP-SM			8.1					8.1											6.47	98.0	98.0
B-6028	SS-6	11.0	SS	0.0	91.0	9.0			SP-SM			14.4					14.4											6.36	180.0	100.0
B-6028	SS-8	18.5	SS	0.0	2.6	97.4			ML			33.0					33.0	49	28											
B-6028	SS-10	28.5	SS	0.3	97.3	2.4			SP			25.6					25.6											6.97	110.0	65.0
B-6028	SS-12	38.5	SS	0.0	98.4	1.6			SP			19.8					19.8													
B-6028	SS-14	48.5	SS	4.9	88.3	6.8			SW-SM			19.6					19.6													
B-6029	SS-3	3.5	SS	0.0	57.1	42.9			SC			33.2					33.2	43	20											
B-6029	SS-5	8.5	SS	1.7	42.5	55.8			CL			37.1					37.1	42	20											
B-6029	SS-6	11.0	SS	10.1	44.1	45.8			SM			32.7					32.7													
B-6029	SS-8	18.5	SS	2.6	27.6	69.8			CH			46.2					46.2	76	26											
B-6029	SS-12	38.5	SS	0.0	89.1	10.9			SP-SM			23.4					23.4													
B-6030	SS-2	1.5	SS	0.0	30.0	70.0			CL			31.4					31.4	42	23											
B-6030	SS-4	6.0	SS	0.0	70.9	29.1			SC			26.4					26.4	69	22											
B-6030	SS-6	11.0	SS	0.0	67.0	33.0			SM			31.1					31.1													
B-6030	SS-8	18.5	SS	0.0	50.7	49.3			SM			47.7					47.7	NV	NP											
B-6030	SS-9	23.5	SS	0.0	53.1	46.9			SM			42.5					42.5	42	28											

TABLE 5 (ALSO TABLE F-1, ATTACHMENT F)
SUMMARY OF SOIL TESTS
VOGTLE UNITS 3 & 4 COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
MACTEC PROJECT No. 6141-06-0286

Source of Sample	Sample No.	Depth (ft)	Sample Type	Gravel (1) (%)	Sand (1) (%)	Fines (1) (%)	Silt (1) (%)	0.005 mm Clay (1) (%)	USCS(2)	Compaction: Optimum Moisture (%)	Compaction: Maximum Dry Density (pcf)	Natural Moisture Content (%) at e_o: SPT	Triaxial, Compression or Direct Shear: 1	2	3	Consolidation	Avg.	LL	PL	G_s	Dry Density (pcf) at e_o: SPT	Triaxial, Compression or Direct Shear: 1	2	3	Consolidation	Avg.	Wet Density Avg. (pcf)	pH	Chloride (mg/kg)	Sulfate (mg/kg)
B-6030	SS-12	38.5	SS	0.0	92.1	7.9			SP-SM			23.1					23.1													
B-6030	SS-13	43.5	SS	0.0	44.5	55.5			CH			35.9					35.9	54	22											
TP-B-1108	B1	8.5	Bulk	0.0	75.1	24.9			SM	14.8	120.0																	5.14	80.0	8.6
TP-B-1117	B1	6.0	Bulk	0.0	92.2	7.8			SP-SM	5.1	111.3																	5.30	71.0	11.0
TP-B-1121	B1	6.0	Bulk	0.1	87.6	12.3			SM	13.7	116.3							NV	NP									6.40	450.0	13.0
TP-B-1125	B1	6.0	Bulk	0.0	95.0	5.0			SP-SM	7.3	107.1							NV	NP									7.89	71.0	8.1
TP-B-1185	B1	6.0	Bulk	0.0	26.7	73.3			MH	63.3								91	46											
TP-B-1194	B1	5.0	Bulk	0.0	91.6	8.4			SP-SM	5.4	112.8																	5.23	74.0	18.0
TP-B-1194	B2	8.0	Bulk	0.0	71.9	28.1			SC	15.1	120.7							37	22									5.25	91.0	16.0
TP-B-1197	B1	5.0	Bulk	0.0	89.9	10.1			SP-SM	6.6	113.2							NV	NP									5.69	250.0	15.0

(1) Due to computer roundoff, particle size fractions may total 100 ± 1. Fines include silt plus clay.
(2) USCS Symbol is based on visual-manual method where incomplete classification testing was performed.

Prepared By/Date: Alexandra Taylor/11-6-07 AT
Checked By/Date: Gautham Pillappa/11-6-07 GSP

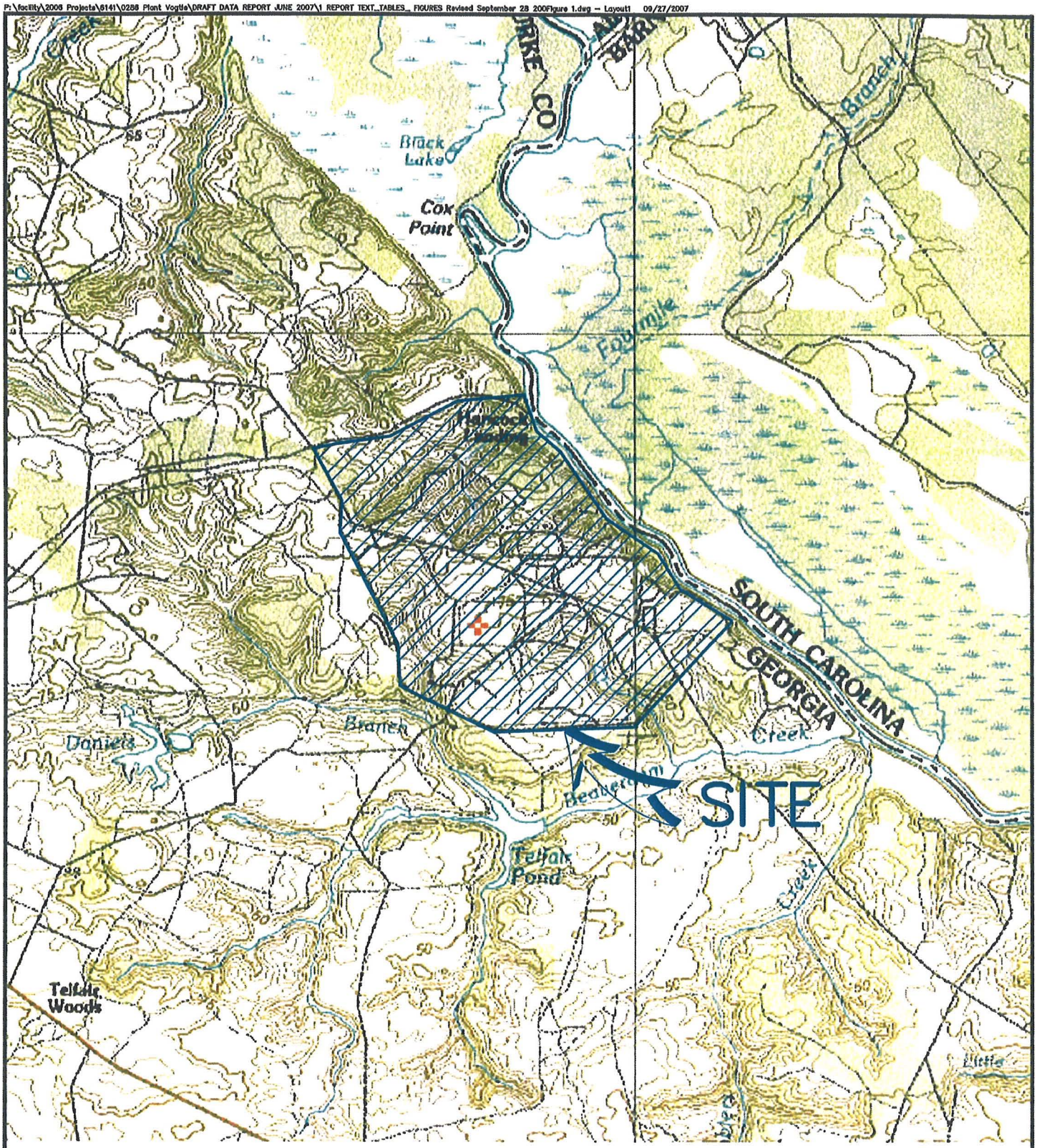
List of Figures

Figure 1 Site Location Map

Figure 2A Boring Location Plan (Bechtel Drawing 23162-0-CY-0000-00001, Revision 4)

Figure 2B Power Block Boring Location Plan (Bechtel Drawing 23162-0-CY-0000-00001, Revision 5)

P:\facility\2006 Projects\6141\0286 Plant Vogtle\DRAFT DATA REPORT JUNE 2007\1 REPORT TEXT_TABLES_ FIGURES Revised September 28 200Figure 1.dwg -- Layout1 09/27/2007



N

SOURCE: USGS SHELL BLUFF LANDING (GA, SC) QUADRANGLE

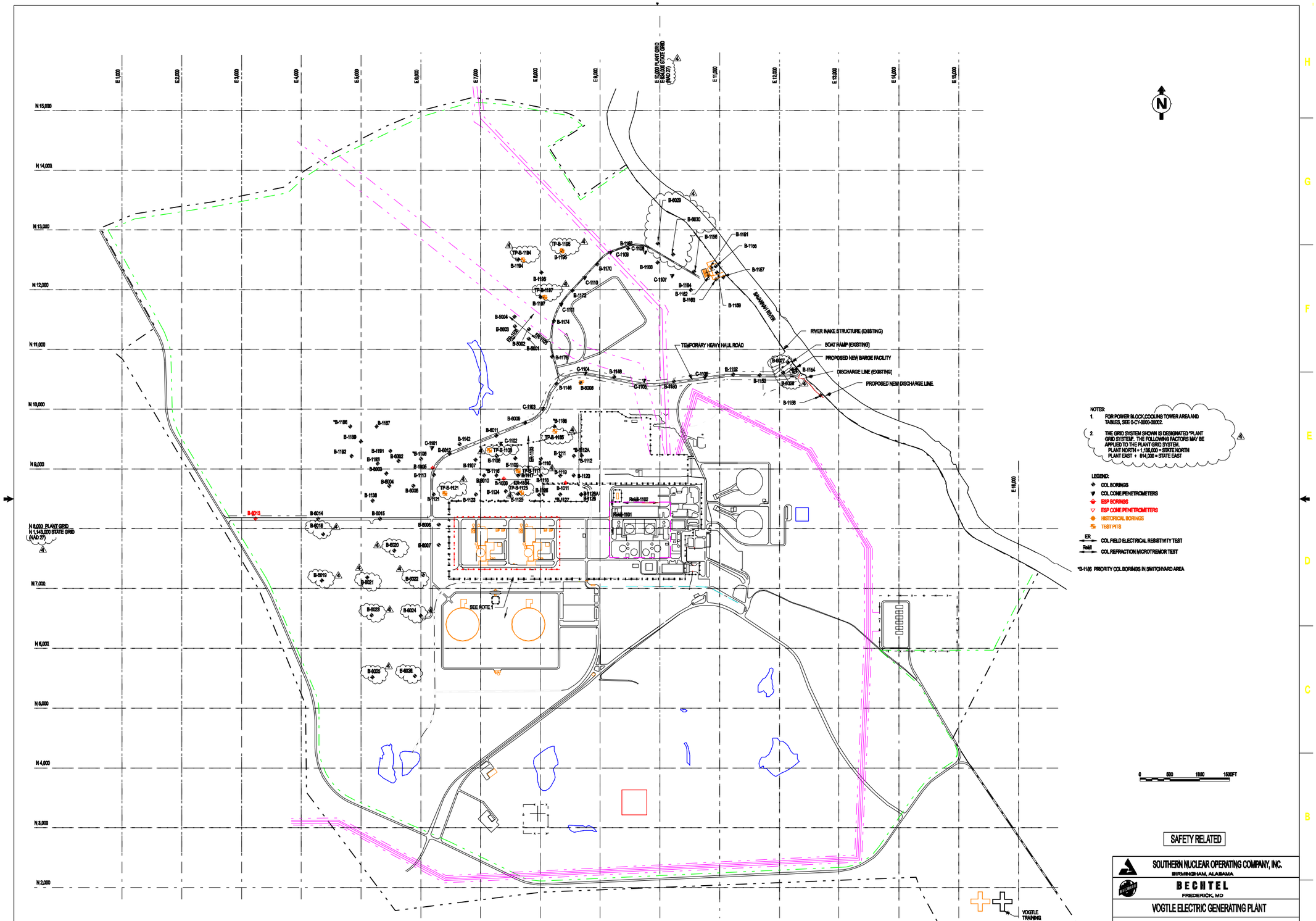
SCALE IN MILES

0 0.50 1 2

VOGTLE ELECTRIC GENERATING PLANT UNITS 3 AND 4 COL PROJECT BURKE COUNTY, GEORGIA	MACTEC Mactec Engineering and Consulting, Inc. 396 PLASTERS AVENUE, N.E. ATLANTA, GEORGIA 30324 (404)873-4761	SITE LOCATION MAP

JOB NO.	DATE:		FIGURE:
6141-06-0286	MAY 17, 2007		1
TASK: 19	DRAWN: AAT	APPROV.: MFC	SCALE: AS SHOWN

AT MFC WITH PERMISSION



NOTES:

1. FOR POWER BLOCK,COOLING TOWER AREA AND TABLES, SEE C-CY-0000-00002.
2. THE GRID SYSTEM SHOWN IS DESIGNATED "PLANT GRID SYSTEM". THE FOLLOWING FACTORS MAY BE APPLIED TO THE PLANT GRID SYSTEM.
   PLANT NORTH + 1,135,000 = STATE NORTH
   PLANT EAST + 814,000 = STATE EAST

LEGEND:

- COL BORINGS
- COL CONE PENETROMETERS
- ESP BORINGS
- ESP CONE PENETROMETERS
- HISTORICAL BORINGS
- TEST PITS
- ER — COL FIELD ELECTRICAL RESISTIVITY TEST
- ReMi — COL REFRACTION MICROTREMOR TEST

*B-1186 PRIORITY COL BORINGS IN SWITCHYARD AREA

SAFETY RELATED

SOUTHERN NUCLEAR OPERATING COMPANY, INC.
BIRMINGHAM, ALABAMA

BECHTEL
FREDERICK, MD

VOGTLE ELECTRIC GENERATING PLANT

COL SUBSURFACE INVESTIGATION
BORING LOCATION PLAN

BECHTEL	BECHTEL DRAWING NO.	REV.
23182	0-CY-0000-00001	4
SCALE: 1"=600'	SNC DRAWING NO.	VER.
	AR01-0000-XG-2004	5.0

NO.	REVISION/VER.	DATE	DR	CHK	APPV	APPV
4	REVISED AS SHOWN AND REISSUED FOR AS-BUILT	7-30-07	MHN	JC	LM	JP
3	REVISED AS SHOWN AND REISSUED FOR USE	2-15-07	MHN	JC	LM	JP
2	REVISED AS SHOWN AND REISSUED FOR USE	2-8-07	MHN	LH	LM	JP
1	REVISED TO ADD BORROW AREA BORINGS	11-30-06	MHN	LH	LM	JP
0	ISSUED FOR USE	10-6-06	VJD	JC	LM	JP

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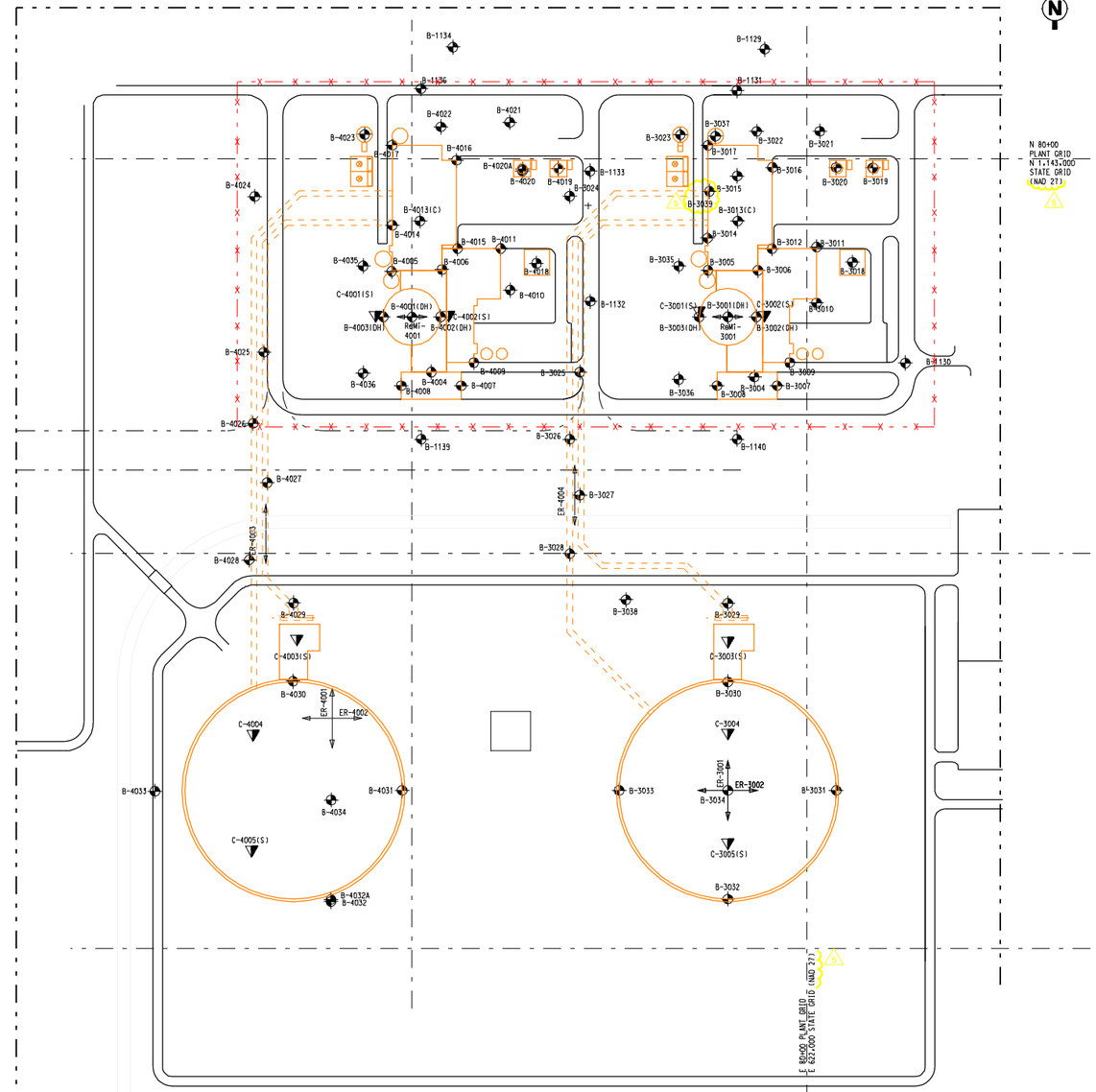
BOREHOLE No.	Coordinates (Feet) - Georgia East State Plane (NAD 27) North	East	Ground Surface Elev. (Feet) NGVD 29	Explored Depth - Ft.	Location/Remarks
B-1106	1144146.36	625002.76	257.69	148.85	500KV SWITCHYARD
B-1107	1144153.75	625916.11	268.66	150.00	500KV SWITCHYARD
B-1108	1144214.67	621273.02	273.56	149.80	500KV SWITCHYARD
B-1109	1144180.46	621580.64	276.48	150.05	500KV SWITCHYARD
B-1110	1144170.91	625111.37	265.14	150.05	500KV SWITCHYARD
B-1111	1144121.69	622335.73	224.90	150.00	500KV SWITCHYARD
B-1112	1144223.97	626931.31	213.74	69.00	500KV SWITCHYARD
B-1112A	1144219.36	627061.49	227.14	130.00	500KV SWITCHYARD
B-1113	1143901.64	620217.17	249.99	170.00	500KV SWITCHYARD
B-1114	1143856.12	621264.83	261.62	138.50	500KV SWITCHYARD
B-1117	1143855.75	621609.63	283.69	149.30	500KV SWITCHYARD
B-1118	1143859.92	622007.97	257.91	149.40	500KV SWITCHYARD
B-1119	1143888.95	622335.71	223.57	150.00	500KV SWITCHYARD
B-1120	1143833.03	623058.49	227.18	149.80	500KV SWITCHYARD
B-1121	1143875.57	623016.21	241.33	150.00	500KV SWITCHYARD
B-1123	1143575.42	620801.98	241.27	150.00	500KV SWITCHYARD
B-1124	1143627.62	621621.59	241.31	150.00	500KV SWITCHYARD
B-1125	1143586.85	621628.25	245.97	150.00	500KV SWITCHYARD
B-1126	1143567.68	621980.13	219.88	150.00	500KV SWITCHYARD
B-1127	1143573.28	622330.29	219.61	150.00	500KV SWITCHYARD
B-1128	1143372.45	622880.42	218.26	73.00	500KV SWITCHYARD
B-1128A	1143371.71	622845.46	217.92	149.80	500KV SWITCHYARD
B-1129	1143278.22	621895.74	221.84	150.00	POWER BLOCK ROADS
B-1130	1143482.78	623050.05	217.46	99.75	POWER BLOCK ROADS
B-1131	1143172.99	621823.26	222.18	99.60	POWER BLOCK ROADS
B-1132	1142614.13	621450.58	219.73	150.05	POWER BLOCK ROADS
B-1133	1142846.94	621651.13	221.05	150.05	POWER BLOCK ROADS
B-1134	1143282.88	621106.21	222.04	150.00	POWER BLOCK ROADS
B-1136	1143178.11	621023.05	221.65	150.00	POWER BLOCK ROADS
B-1138	1143469.63	619192.85	219.82	150.05	POWER BLOCK ROADS
B-1139	1142889.86	621526.81	218.68	150.00	POWER BLOCK ROADS
B-1140	1142255.18	621823.58	216.58	150.05	POWER BLOCK ROADS
B-1142	1144416.58	620649.58	224.69	150.00	HEAVY HAUL ROAD
B-1146	1145428.36	622772.08	240.04	88.60	HEAVY HAUL ROAD
B-1148	1145537.78	623036.05	218.94	150.00	HEAVY HAUL ROAD
B-1150	1145487.23	624535.38	170.69	150.00	HEAVY HAUL ROAD
B-1152	1145581.48	625237.41	117.05	150.00	HEAVY HAUL ROAD
B-1153	1145566.97	625673.46	133.58	150.00	HEAVY HAUL ROAD
B-1154	1145664.23	626216.36	95.08	99.95	HEAVY HAUL ROAD
B-1155	1147390.34	624336.42	86.95	150.05	PUMPHOUSE
B-1156	1147300.03	624671.69	85.10	99.25	PUMPHOUSE
B-1157	1147209.58	625060.18	89.17	150.05	PUMPHOUSE
B-1158	1145139.92	626669.12	88.14	149.80	PUMPHOUSE
B-1159	1147293.78	624934.51	88.10	150.00	PUMPHOUSE
B-1161	1147363.37	624862.14	86.10	150.00	PUMPHOUSE
B-1162	1147234.91	624915.23	85.55	200.00	PUMPHOUSE
B-1163	1147115.58	624936.82	85.95	150.00	PUMPHOUSE
B-1164	1146994.84	624618.63	225.05	150.00	PIPE LINE
B-1166	1147452.37	623961.58	203.40	100.00	PIPE LINE
B-1168	1147688.45	623467.78	203.20	100.00	PIPE LINE
B-1172	1147423.95	622953.71	223.29	80.80	PIPE LINE
B-1173	1146983.44	622538.76	249.49	100.00	PIPE LINE
B-1174	1146676.08	622228.98	220.61	50.00	PIPE LINE
B-1176	1145876.27	622135.21	221.98	50.00	PIPE LINE
B-1176A	1145878.82	622196.85	221.51	100.00	PIPE LINE
B-1180	1144116.64	622232.13	226.78	148.80	SWITCHYARD
B-1186	1144711.98	618818.88	277.51	179.80	BATCH PLANT
B-1187	1144111.16	618535.61	277.48	150.00	BATCH PLANT
B-1189	1144459.73	618997.55	279.98	150.00	BATCH PLANT
B-1191	1144301.63	619490.78	265.30	150.00	BATCH PLANT
B-1192	1144217.44	618840.95	243.17	179.50	BATCH PLANT
B-1193	1144081.48	619277.79	254.11	178.80	BATCH PLANT
B-1194	1147504.63	621630.15	199.35	50.00	BORROW AREA 4
B-1195	1147574.84	622478.35	225.60	50.00	BORROW AREA 4
B-1196	1147296.63	622211.51	217.50	50.00	BORROW AREA 4
B-1197	1146874.74	622005.87	246.60	50.00	BORROW AREA 4
B-3001	1146177.33	621807.73	218.99	150.00	230KV SWITCHYARD
BG002	1146339.78	621808.33	241.53	150.00	230KV SWITCHYARD
BG003	1146384.61	621574.73	227.94	148.70	230KV SWITCHYARD
B-3004	1146647.73	621568.38	236.61	149.80	230KV SWITCHYARD
B-4002	1144134.15	619626.88	247.90	150.00	BATCH PLANT
B-4068	1143595.93	619423.85	229.16	179.40	BATCH PLANT
B-4064	1143718.13	619473.34	231.59	130.00	BATCH PLANT
B-4065	1143711.98	619875.71	242.59	178.95	BATCH PLANT
B-4066	1143969.73	620301.73	248.22	50.00	CONSTRUCTION WAREHOUSE
B-4067	1142733.73	620301.73	227.28	50.00	CONSTRUCTION WAREHOUSE
B-4068	1145463.82	622676.36	240.11	150.00	REORIENTATION BUILDING
B-4069	1144773.63	621746.18	246.04	100.00	HEAVY HAUL ROAD
B-4010	1143833.34	621039.21	263.39	169.20	500KV SWITCHYARD
B-4011	1144557.54	621261.73	244.00	120.00	HEAVY HAUL ROAD
B-4012	1144256.48	620480.14	196.20	120.00	HEAVY HAUL ROAD
B-4013	1143169.54	617234.81	251.14	50.00	ACCESS ROAD
B-4014	1143168.15	618081.48	259.79	50.00	ACCESS ROAD
B-4015	1143166.26	619317.85	221.52	50.00	ACCESS ROAD
B-4018	1142933.31	618346.13	257.68	50.00	LAYDOWN AREA
B-4019	1142132.73	618346.18	183.96	50.00	LAYDOWN AREA
B-4020	1142634.92	619553.91	221.68	130.00	MODULE ASSEMBLY AREA
B-4021	1142185.73	619153.41	209.80	120.00	MODULE ASSEMBLY AREA
B-4022	1142224.77	620040.33	216.23	90.00	MODULE ASSEMBLY AREA
B-4023	1141583.13	619177.88	232.77	50.00	LAYDOWN AREA
B-4024	1141515.87	619350.12	216.01	50.00	LAYDOWN AREA
B-4025	1140516.63	619189.73	172.69	50.00	LAYDOWN AREA
B-4026	1140537.74	619900.15	215.46	50.00	LAYDOWN AREA
B-4027	1145776.95	636145.09	98.65	75.00	BARGE SLIP AREA
B-4028	1145611.38	636062.41	95.10	50.00	BARGE SLIP AREA
B-4029	1147771.71	623966.63	85.41	50.00	ROAD TO INTAKE
B-4030	1147588.12	624222.82	88.37	50.00	ROAD TO INTAKE

CONT No.	Coordinates (Feet) - Georgia East State Plane (NAD 27) North	East	Ground Surface Elev. (Feet) NGVD 29	Explored Depth - Ft.	Location/Remarks
C-1101	1144327.48	620185.46	263.78	71.45	HEAVY HAUL ROAD
C-1102	1144424.05	621335.45	267.61	51.45	HEAVY HAUL ROAD
C-1103	1145011.61	622037.68	236.52	27.45	HEAVY HAUL ROAD
C-1104	1145601.77	622746.95	230.79	77.15	HEAVY HAUL ROAD
C-1105	1145483.05	623735.88	230.57	50.25	HEAVY HAUL ROAD
C-1106	1145533.96	624748.58	139.52	20.55	HEAVY HAUL ROAD
C-1107	1147233.91	624520.32	211.92	71.55	PIPE LINE
C-1108	1147628.93	623755.23	200.89	59.62	PIPE LINE
C-1109	1147623.11	623171.88	203.79	72.15	PIPE LINE
C-1110	1147116.95	622745.32	242.39	72.35	PIPE LINE
C-1111	1146715.15	622346.15	255.69	52.25	PIPE LINE
C-3001(S)	1146210.55	621726.54	218.37	70.15	EAST POWER BLOCK
C-3002(S)	1143656.51	621872.75	218.89	67.95	EAST POWER BLOCK
C-3003(S)	1141771.78	621801.62	221.38	82.05	COOLING TOWER AREA
C-3004	1141540.05	621801.33	223.25	72.75	COOLING TOWER AREA
C-3005(S)	1141246.89	621780.33	221.41	150.15	COOLING TOWER AREA
C-4001(S)	1142559.87	620918.51	218.87	76.20	WEST POWER BLOCK
C-4002(S)	1142659.94	621065.82	219.08	82.20	WEST POWER BLOCK
C-4003(S)	1141784.64	620708.48	221.16	82.20	COOLING TOWER AREA
C-4004	1141543.37	620597.81	219.99	77.15	COOLING TOWER AREA
C-4005(S)	1141243.95	620553.38	220.01	90.20	COOLING TOWER AREA

RESISTIVITY No.	Coordinates (Feet) - Georgia East State Plane (NAD 27) North	East	Ground Surface Elev. (Feet) NGVD 29	Explored Depth - Ft.	Location/Remarks
TP-B-1138	1145312.48	621145.82	256.16	12.25	
TP-B-1111	1143987.31	621627.55	269.10	8.05	
TP-B-1121	1143351.74	620401.53	241.17	16.05	
TP-B-1125	1143603.78	621685.81	240.61	11.05	
TP-B-1183	1144634.18	622242.13	225.17	11.05	
TP-B-1184	1147500.53	621706.45	202.73	11.05	
TP-B-1185	1147646.89	622363.56	212.15	8.05	
TP-B-1187	1146876.45	622076.57	245.24	11.05	

BOREHOLE No.	Coordinates (Feet) - Georgia East State Plane (NAD 27) North	East	Ground Surface Elev. (Feet) NGVD 29	Explored Depth - Ft.	Location/Remarks
B-3001(DH)	1142599.50	621789.64	218.40	420.00	EAST POWER BLOCK
B-3002(DH)	1142597.90	621878.80	218.63	249.90	EAST POWER BLOCK
B-3003(DH)	1142599.85	621777.20	218.29	250.00	EAST POWER BLOCK
B-3004	1142447.62	621857.12	219.51	160.00	EAST POWER BLOCK
B-3005	1142711.58	621749.10	219.20	155.00	EAST POWER BLOCK
B-3006	1142425.58	621924.95	217.59	155.00	EAST POWER BLOCK
B-3007	1142718.50	621876.74	220.78	159.80	EAST POWER BLOCK
B-3009	1142425.50	621773.51	217.86	155.00	EAST POWER BLOCK
B-3010	1142686.68	621956.58	217.85	153.90	EAST POWER BLOCK
B-3012	1142634.96	622024.97	219.49	160.00	EAST POWER BLOCK
B-3011	1142776.68	622024.86	220.57	165.00	EAST POWER BLOCK
B-3013	1142772.53	621911.91	220.40	159.30	EAST POWER BLOCK
B-3013(C)	1142842.89	621825.35	220.51	155.00	EAST POWER BLOCK
B-3014	1142799.53	621746.55	220.26	159.70	EAST POWER BLOCK
B-3015	1142956.89	621822.90	221.78	160.00	EAST POWER BLOCK
B-3016	1142978.42	621913.43	222.48	150.00	EAST POWER BLOCK
B-3017	1143034.35	621749.86	222.10	150.00	EAST POWER BLOCK
B-3018	1142738.11	622115.75	219.80	155.00	EAST POWER BLOCK
B-3019	1142971.96	622167.48	222.42	153.85	EAST POWER BLOCK
B-3020	1142971.94	622314.78	222.44	149.40	EAST POWER BLOCK
B-3021	1143070.22	622033.23	223.19	154.50	EAST POWER BLOCK
B-3022	1143069.86	621812.63	223.36	150.00	EAST POWER BLOCK
B-3023	1143061.11	621679.50	222.81	150.50	EAST POWER BLOCK
B-3024	1142805.82	621359.65	220.16	150.00	CIRC. WATER LINE
B-3025	1142660.92	621625.34	219.21	150.00	CIRC. WATER LINE
B-3026	1142290.23	621403.73	215.76	149.20	CIRC. WATER LINE
B-3027	1142058.65	621423.26	216.80	150.00	CIRC. WATER LINE
B-3028	1141867.30	621408.76	220.12	150.00	CIRC. WATER LINE
B-3029	1141881.50	621803.89	226.13	149.90	CIRC. WATER LINE
B-3030	1141699.94	621739.67	221.99	150.00	COOLING TOWER
B-3031	1141398.73	622042.01	222.70	150.00	COOLING TOWER
B-3032	1141158.18	621709.53	225.05	149.50	COOLING TOWER
B-3033	1141405.26	621715.21	222.24	149.30	COOLING TOWER
B-3034	1141395.76	621514.68	224.67	149.20	COOLING TOWER
B-3035	1142729.18	621675.37	219.34	150.50	EAST POWER BLOCK
B-3036	1142441.55	621673.96	217.87	155.00	EAST POWER BLOCK
B-3037	1145057.42	621768.87	222.94	150.00	EAST POWER BLOCK
B-3039	1141882.97	621543.15	220.76	98.50	CIRC. WATER LINE
B-3038	1142813.72	621753.64	219.17	150.00	EAST POWER BLOCK
B-4001(DH)	1142599.58	621000.20	218.88	399.90	WEST POWER BLOCK
B-4002(DH)	1142600.19	621072.22	219.06	250.00	WEST POWER BLOCK
B-4003(DH)	1142599.98	620927.13	218.99	249.80	WEST POWER BLOCK
B-4004	1142459.68	621046.56	218.45	150.00	WEST POWER BLOCK
B-4005	1142714.97	620948.74	221.13	164.90	WEST POWER BLOCK
B-4006	1142719.63	621076.36	220.98	165.00	WEST POWER BLOCK
B-4007	1142426.19	621123.28	217.50	170.00	WEST POWER BLOCK
B-4008	1142424.22	620973.78	216.08	169.40	WEST POWER BLOCK
B-4009	1142466.09	621156.86	217.91	164.90	WEST POWER BLOCK
B-4010	1142867.58	621249.04	219.09	150.00	WEST POWER BLOCK
B-4011	1142773.07	621236.36	219.08	150.00	WEST POWER BLOCK
B-4013(C)	1142842.72	621020.31	222.24	165.00	WEST POWER BLOCK
B-4014	1142831.99	620950.23	226.74	169.60	WEST POWER BLOCK
B-4015	1142773.04	621115.24	220.11	155.00	WEST POWER BLOCK
B-4016	1142996.99	621113.90	221.23	149.60	WEST POWER BLOCK
B-4017	1143034.80	620949.92	220.94	150.00	WEST POWER BLOCK
B-4018	1142735.45	621313.51	220.30	150.00	WEST POWER BLOCK
B-4019	1142975.88	621311.41	221.76	150.00	WEST POWER BLOCK
B-4020	1142969.39	621280.02	222.79	89.40	WEST POWER BLOCK
B-4020A	1142873.73	621280.34	222.56	165.00	WEST POWER BLOCK
B-4021	1143092.61	621247.38	224.55	150.00	WEST POWER BLOCK
B-4022	1143081.30	621073.52	220.71	149.70	WEST POWER BLOCK
B-4023	1143062.36	620879.81	220.71	150.00	WEST POWER BLOCK
B-4024	1142904.78	620601.81	223.80	150.00	CIRC. WATER LINE
B-4025	1142510.01	620635.03	220.80	150.00	CIRC. WATER LINE
B-4026	1142330.16	620597.72	221.54	150.00	CIRC. WATER LINE
B-4027	1142180.05	620633.45	217.73	150.00	CIRC. WATER LINE
B-4028	1141884.20	620587.77	219.57	150.00	CIRC. WATER LINE
B-4029	1141874.85	620659.95	225.28	150.00	CIRC. WATER LINE
B-4030	1141576.68	620659.48	222.36	150.30	COOLING TOWER
B-4031	1141399.83	620575.05	222.13	150.00	COOLING TOWER
B-4032	1141118.48	620754.64	225.24	98.50	COOLING TOWER
B-4032A	1141123.72	620754.66	220.22	150.00	COOLING TOWER
B-4033	1141398.11	620548.78	219.93	149.40	COOLING TOWER
B-4034	1141375.68	620735.35	222.79	150.00	COOLING TOWER
B-4035	1142729.08	620815.27	224.50	164.50	WEST POWER BLOCK
B-4036	1142453.21	620816.25	218.06	170.00	WEST POWER BLOCK

RESISTIVITY No.	Coordinates (Feet) - Georgia East State Plane (NAD 27) North	East	Ground Surface Elev. (Feet) NGVD 29	Explored Depth - Ft.	Location/Remarks
ER-1101	1143821.00	620667.00			FIELD ELEC RESISTIVITY TEST
ER-1102	1143821.00	620667.00			FIELD ELEC RESISTIVITY TEST
ER-1103CL	1144258.24	621739.94	219.61		FIELD ELEC RESISTIVITY TEST
ER-1103N	1144706.50	621821.45	250.84		FIELD ELEC RESISTIVITY TEST
ER-1103S	1143809.08	621785.19	258.96		FIELD ELEC RESISTIVITY TEST
ER-1104CL	1143823.00	621536.77	257.11		FIELD ELEC RESISTIVITY TEST
ER-1104E	1143920.78	621986.23	257.64		FIELD ELEC RESISTIVITY TEST
ER-1104W	1143821.35	621086.95	258.33		FIELD ELEC RESISTIVITY TEST
ER-1105	1144579.02	621622.05	243.09		FIELD ELEC RESISTIVITY TEST
ER-1105	1144866.31	621276.81	226.62		FIELD ELEC RESISTIVITY TEST
ER-1105	1142266.04	621961.60	226.63		FIELD ELEC RESISTIVITY TEST
ER-1106	1146706.48	621999.64	256.15		FIELD ELEC RESISTIVITY TEST
ER-1106	1146039.78	621401.64	164.68		FIELD ELEC RESISTIVITY TEST
ER-1106	1146365.52	621702.00	237.03		FIELD ELEC RESISTIVITY TEST
ER-3051	1141404.39	621932.86	223.41		FIELD ELEC RESISTIVITY TEST
ER-3051	1141304.51	621835.56	219.44		FIELD ELEC RESISTIVITY TEST
ER-3051	1141704.88	621925.34	221.43		FIELD ELEC RESISTIVITY TEST
ER-3052	1141220.32	621725.95	220.67		FIELD ELEC RESISTIVITY TEST
ER-3052	1141206.51	622025.58	220.02		FIELD ELEC RESISTIVITY TEST
ER-3052	1141200.00	622324.03	220.49		FIELD ELEC RESISTIVITY TEST
ER-4051	1141375.68	620795.35	222.79		FIELD ELEC RESISTIVITY TEST
ER-4051	1141133.24	620798.50	220.41		FIELD ELEC RESISTIVITY TEST
ER-4051	1141563.32	620787.88	223.47		FIELD ELEC RESISTIVITY TEST
ER-4051	1140863.32	620798.70	215.33		FIELD ELEC RESISTIVITY TEST
ER-4052	1141375.68	620795.35	222.79		FIELD ELEC RESISTIVITY TEST
ER-4052	1141296.42	620333.97	220.73		FIELD ELEC RESISTIVITY TEST
ER-4052	1140897.17	620349.84	219.86		FIELD ELEC RESISTIVITY TEST
ER-4052CL	1141346.76	620341.45	219.84		FIELD ELEC RESISTIVITY TEST
ER-4053	1142180.05	620633.45	217.73		FIELD ELEC RESISTIVITY TEST
ER-4053	1142049.30	620629.68	219.61		FIELD ELEC RESISTIVITY TEST
ER-4053	1141875.77	620263.31	217.95		FIELD ELEC RESISTIVITY TEST
ER-4053CL	1141813.06	620446.25	220.68		FIELD ELEC RESISTIVITY TEST
ER-4054	1142060.88	621873.12	218.35		FIELD ELEC RESISTIVITY TEST
ER-4054	1142060.45	621422.14	218.46		FIELD ELEC RESISTIVITY TEST
ER-4054	1142057.75	620973.50	219.21		FIELD ELEC RESISTIVITY TEST
REM1-1101CL	1143195.74	623156.74	217.85	100.00	REFRACTION MICROTREMOR TEST
REM1-1101N	1143344.58	623156.02	218.60	100.00	REFRACTION MICROTREMOR TEST
REM1-1101S	1143046.36	623156.23	217.87	100.00	REFRACTION MICROTREMOR TEST
REM1-1102CL	1143432.28	623846.88	217.84	100.00	REFRACTION MICROTREMOR TEST
REM1-1102E	1143433.70	623995.86	217.75	100.00	REFRACTION MICROTREMOR TEST
REM1-1102W	1143431.82	623697.54	217.88	100.00	REFRACTION MICROTREMOR TEST
REM1-3001EAST	1142620.88	621877.24	218.54	100.00	REFRACTION MICROTREMOR TEST
REM1-3001WEST	1142620.88	621877.79	218.20	100.00	REFRACTION MICROTREMOR TEST
REM1-4001EAST	1142620.35	621150.17	218.71	100.00	REFRACTION MICROTREMOR TEST
REM1-4001WEST	1142624.08	620656.50	219.31	100.00	REFRACTION MICROTREMOR TEST



POWER BLOCK - COOLING TOWER AREA

NOTE:
1. WORK THIS DRAWING WITH 0-CY-0000-00001.

LEGEND:
- COL BORINGS
- COL CONE PENETROMETERS
- ESP BORINGS
- ESP CONE PENETROMETERS
- HISTORICAL BORINGS
- ER COL FIELD ELECTRICAL RESISTIVITY TEST
- ReM1 COL REFRACTION MICROTREMOR TEST
- (DH) BORINGS WITH DOWNHOLE GEOPHYSICAL AND/OR SUSPENSION P-S VELOCITY MEASUREMENTS
- (S) CONE PENETROMETER WITH SHEAR WAVE VELOCITY MEASUREMENT
- (C) BORINGS WITH CONTINUOUS SAMPLING

SAFETY RELATED

SOUTHERN NUCLEAR OPERATING COMPANY, INC.
BIRMINGHAM, ALABAMA

BECHTEL
FREDERICK, MD

VOGTLE ELECTRIC GENERATING PLANT

COL SUBSURFACE INVESTIGATION
POWER BLOCK BORING LOCATION PLAN

BECHTEL	BECHTEL DRAWING NO.	REV.
23162	0-CY-0000-00002	5
SCALE: NTS	SNC DRAWING NO. AR01-0000-XG-2005	VER. 6.0

NO.	REVISION/VER.	DATE	DR	CHK	APPV	APPV
5	REVISED AS NOTED AND REISSUED FOR AS-BUILT	7/30/07	NHN	JC	LM	JP
4	REVISED AS NOTED AND REISSUED FOR USE	2/15/07	NHN	JC	LM	JP
3	REVISED AS NOTED AND REISSUED FOR USE	2/8/07	NHN	LH	LM	JP
2	REVISED TO ADD BORROW AREA BORINGS	11/30/06	NHN	LH	LM	JP
1	REMOVED HOLD AND MODIFIED AS SHOWN	10/27/06	VJD	JC	LM	JP
0	ISSUED FOR USE	10/4/06	VJD	JC	LM	JP

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SIZE E 34X44

List of Attachments (Submitted Under Separate Covers on Various Dates)

Attachment	Revision Number	Submittal Date	Attachment Title
A	1	July 31, 2007	Survey Data and Test Locations
B	3	November 9, 2007	Geotechnical Boring Logs, Geotechnical Test Pit Logs, and SPT Energy Ratio Measurements
C	0	May 31, 2007	Cone Penetrometer Test Results
D	0	May 31, 2007	Geophysical Test Data (Downhole), Field Electrical Resistivity
E	0	May 31, 2007	ReMi Seismic Shear Wave Velocity Measurements
F	3	November 9, 2007	Laboratory Testing Data (Geotechnical)
G	0	To Be Determined	Resonant Column Torsional Shear (RCTS) Test Results

Vogtle Units 3 & 4 COL Project

Attachment A
Survey Data and Test Locations

Consists of:
Toole Surveying Company, Inc. Report, dated July 30, 2007
Toole Surveying Company, Inc. Report, dated May 15, 2007

Volume 1 of 1

Job No. 6141-06-0286

MACTEC ENGINEERING AND CONSULTING, INC.

July 31, 2007

MACTEC

July 31, 2007

Mr. Tom McCallum
Georgia Power Company
C/O Southern Nuclear Operating Company, Inc.
40 Inverness Center Parkway
Post Office Box 1295
Birmingham, Alabama 35201
Phone: (205) 992-6697
e-mail: tomccall@southernco.com

Subject: **Geotechnical Data Report Attachment A – Survey Data and Test Locations**
Vogtle Units 3 & 4 COL Project
Vogtle Electric Generating Plant
Burke County, Georgia
MACTEC Project Number 6141-06-0286

Dear Mr. McCallum:

MACTEC Engineering & Consulting, Inc. is pleased to submit Attachment A of the Final Data Report for the geotechnical exploration and laboratory testing for the Vogtle Units 3 & 4 COL Project located adjacent to the existing Vogtle Electric Generating Plant near Waynesboro, Burke County, Georgia.

It has been a pleasure to perform the work described in the attached report. If you have any questions, or if we may be of further service, we hope that you will contact us at your convenience.

Sincerely,

MACTEC ENGINEERING & CONSULTING, INC.

Matthew F. Cooke WITH PERMISSION
Matthew F. Cooke
Senior Geologist
Site Superintendent
Registered, Georgia 1887

Wm. Allen Lancaster
Project Manager
Civil Engineer
Registered, Georgia 7075

Pieter J. DePree
Principal Geotechnical Engineer
Registered, Georgia 19637

BY KIB WITH PERMISSION.

ATTACHMENT A

This Attachment is one of a number of attachments that are part of the following report which was prepared by MACTEC Engineering & Consulting Inc.:

Geotechnical Data Report
Vogtle Units 3 & 4 COL Project
Vogtle Electric Generating Plant
Burke County, Georgia
Subsurface Investigation and Laboratory Testing
SNC Subcontract No. 7074425
MACTEC Job No. 6141-06-0286

For background and a description of scope of work contained in the report, please refer to the above referenced report. The report was addressed as follows:

Mr. Tom McCallum
Georgia Power Company
C/O Southern Nuclear Operating Company, Inc.
40 Inverness Center Parkway
Post Office Box 1295
Birmingham, Alabama 35201
Phone: (205) 992-6697
e-mail: tomccall@southernco.com

The following list shows other Attachments to the above report and their included information:

Geotechnical Boring Logs……..…….See Attachment B

Cone Penetrometer Test Results……..…See Attachment C

Geophysical Test Data (Downhole and Field Electrical Resistivity) ……See Attachment D

ReMi Seismic Shear Wave Velocity Measurements .....…….See Attachment E

Laboratory Testing Data (Geotechnical)...…….See Attachment F

Resonant Column Torsional Shear (RCTS) Test Results.…….See Attachment G

ATTACHMENT A

Survey Data and Test Locations

CONSISTS OF:

Toole Surveying Company, Inc. Report dated July 30, 2007
Toole Surveying Company, Inc. Report dated May 15, 2007

Volume 1 of 1

Toole Surveying Company, Inc. Report dated July 30, 2007

GA Power Company
Plant Vogtle Units 3 & 4 COL Project

Borehole Surveyor Report

Subsurface Investigation Location

Last Revised 07/30/07

Project Surveyor

Registered Land Surveyor

Barry A. Toole, RLS

GA#2565

GEORGIA REGISTERED 7-30-07 No 2565 LAND SURVEYOR BARRY A. TOOLE

Prepared By

Toole Surveying Company, Inc.

308 4th Street Augusta, Georgia 30901

(Voice) 706-722-4118 (Fax) 706-722-4115

www.toolesurveying.com

Table of Contents

- **PROJECT LAYOUT**
  - Project Control
  - Bore Site Locations
  - Field Staking and As-built Location
  - Daily Surveying Activities

- **EQUIPMENT**
  - Chart of Equipment Used
  - Total Station Calibration Sheet

- **RAW DATA FILES**
  - Field Data Acquisition Dates

- **QUALITY ASSURANCE REPORT**
  - As-built borehole coordinates compared to staked coordinates (excel table)

PROJECT LAYOUT

Project Control

The project control was provided by Donnie Dryden with Georgia Power Company (GPC) to Greg Schlein with Toole Surveying Co., Inc. (TSC). The project coordinates are based on NAD 27 – horizontal and NGVD 1929 – vertical. The following are the control points used as the basis for the as-built borehole coordinates:

CP-1 (GPC) N 1,141,970.366
E 623,363.196
Elev 223.776

CP-2 (GPC) N 1,141.915.275
E 623,953.193
Elev 244.00

CP-8000 (GPC) N 1,146,604.206
E 624,026.366
Elev 236.26

CP-8006 (GPC) N 1,146776.401
E 624,448.844
Elev 225.22

These points were tied together with a baseline traverse which was used for all measurements. The length of the baseline traverse was 8,347.78 linear feet with a horizontal coordinate error of 0.11' with a resulting precision of 1 in 75,888. The control coordinates were also checked with two Trimble 5700 RTK units, using the GPC monuments as a base. The resulting accuracy was 0.10' +/- of relative positional accuracy.

Bore Site Locations

The borehole locations to be staked were provided by Mr. Greg Lee with Southern Nuclear Operating Company in the following Subsurface Investigation location Plans:

23162-000-CY-0000-00001 new.tif;
23162-000-CY-0000-00002 new.tif

Field Staking and As-built Location

Boreholes were staked and as-built located using Trimble 5700 RTK – GPS (sub-centimeter accuracy) where possible. Conventional surveying methods were used in all other areas. Traverses lines were established to tie in the remaining borehole locations inaccessible by RTK-GPS. These traverse lines tied back to the main project control baseline described above for quality control checks on all horizontal loops. A Nikon DTM-530 Total station (serial # 020396) was used for staking and as-built location of the boreholes. The same traverse lines and procedures were used to perform the as-built locations of the boreholes. A differential level loop was also established (using a DINI 22 Trimble digital level) on all traverse points using the elevations provided with the GPC control points. Level loops were run through as-built borehole locations and back to known control points for quality assurance. An excel spreadsheet was prepared showing the variation between proposed and as-built coordinates.

Daily Survey Activities

Pre & Post Data Collection Checks were performed on a daily basis for staking and as-built location of the completed boreholes. These procedures are briefly described as follows:

RTK-GPS daily location was preceded by checks on at least one of the GPC control points listed under "Project Control" above. A "check shot" was stored using a different point number for inverse comparison. Any separate traverse lines used to stake or locate out-lying boreholes were looped back to the original baseline traverse (at a different point). A new point number was stored at the original control points. Subsequent inverse comparison of those coordinates was made for quality assurance.

EQUIPMENT

DESCRIPTION	SERIAL #
Trimble Zephyr Ant.	#12214559
Trimble Zephyr Geodetic Ant.	#11909699
Trimble Base 5700 Receiver	#440101198
Trimble Rover 5700 Receiver	#440102656
Trimble TS C1 using Ver. 10.70 Software	#220256429
2 meter Fixed Height Tripod 5119-00-yel	N/A
2 meter Fixed Height Carbon Fiber Rod	N/A
Bi Pod	N/A
5700 To Cell Phone Cable	N/A
48 MB Flash Card	N/A
DINI 22 - Digital Level	#700075 A
Digital Barcode Leveling Rod	N/A
Data Collector: Recon & TDS Software	#FS29A13023
Survey Pro (TDS) Software	Version 4.1.6
Nikon DTM-530 Total station	# 020396

RAW DATA FILES

Field Data Acquisition Dates

1) 01/04/07
2) 01/15/07
3) 01/16/07
4) 03/19/07
5) 03/20/07
6) 03/21/07
7) 03/22/07
8) 03/27/07
9) 04/02/07
10) 04/16/07
11) 04/017/07
12) 04/18/07

QUALITY ASSURANCE REPORTS

Borehole Location and Staking Comparison by Coordinate Comparison

Last Revised 05-15-07

AS-BUILT COORDINATES					STAKED COORDINATES		
Point #	Northing	Easting	Elevation	Description	Description	North	East
192	1144168.36	620002.76	257.89	B-1105	B-1105	1144169.50	620005.80
189	1144153.75	620916.11	266.66	B-1107	B-1107	1144153.20	620912.50
186	1144214.07	621273.00	273.56	B-1108	B-1108	1144213.10	621274.80
182	1144180.46	621580.64	276.48	B-1109	B-1109	1144170.50	621634.10
176	1144170.91	622011.31	265.14	B-1110	B-1110	1144170.50	622050.70
327	1144212.59	622333.79	224.90	B-1111	B-1111	1144213.10	622333.00
326	1144223.37	622691.31	213.74	B-1112	B-1112	1144213.10	622574.00
325	1144219.36	622561.49	227.14	B-1112A	B-1112A	1144213.10	622574.00
367	1143901.44	620217.17	249.99	B-1113	B-1113	1143893.09	619858.06
187	1143894.12	621264.65	261.82	B-1116	B-1116	1143893.10	621274.80
443	1143890.75	621628.43	263.89	B-1117	B-1117	1143893.10	621627.50
177	1143885.92	622007.97	257.91	B-1118	B-1118	1143893.10	622050.70
168	1143888.30	622333.77	223.57	B-1119	B-1119	1143893.10	622333.00
324	1143893.05	622558.49	227.18	B-1120	B-1120	1143893.10	622574.00
446	1143575.57	620216.27	241.33	B-1121	B-1121	1143573.10	620216.70
342	1143575.43	620921.98	241.27	B-1123	B-1123	1143573.10	620922.10
345	1143627.62	621421.59	241.21	B-1124	B-1124	1143650.20	621422.30
348	1143586.80	621628.20	240.97	B-1125	B-1125	1143573.10	621627.50
116	1143567.68	621980.43	219.88	B-1126	B-1126	1143573.10	621980.30
166	1143573.26	622332.29	219.67	B-1127	B-1127	1143573.10	622333.00
329	1143572.65	622682.42	218.26	B-1128	B-1128	1143573.10	622635.69
330	1143573.71	622685.46	217.92	B-1128A	B-1128A	1143573.10	622635.69
117	1143278.22	621893.74	221.84	B-1129	B-1129	1143283.00	621891.00
319	1142482.76	622250.00	217.46	B-1130	B-1130	1142485.00	622280.00
292	1143172.99	621823.06	222.18	B-1131	B-1131	1143174.00	621823.50
263	1142614.19	621450.08	218.73	B-1132	B-1132	1142639.00	621452.00
262	1142968.94	621451.15	221.20	B-1133	B-1133	1142969.00	621452.00
333	1143282.88	621104.27	222.04	B-1134	B-1134	1143283.00	621104.00
332	1143178.11	621023.00	221.65	B-1136	B-1136	1143174.00	621023.00
488	1143469.69	619192.80	215.82	B-1138	B-1138	1143469.50	619191.89
249	1142289.86	621026.81	216.68	B-1139	B-1139	1142290.00	621023.50
137	1142290.16	621823.56	216.58	B-1140	B-1140	1142290.00	621823.50
369	1144416.58	620649.58	224.69	B-1142	B-1142	1144422.40	620831.00
163	1145428.36	622272.08	240.04	B-1146	B-1146	1145428.20	622272.00
210	1145537.78	623236.50	218.94	B-1148	B-1148	1145539.30	623238.50
196	1145467.29	624235.30	170.69	B-1150	B-1150	1145467.50	624235.00
199	1145581.68	625227.34	117.05	B-1152	B-1152	1145577.60	625227.20
202	1145568.97	625673.46	103.58	B-1153	B-1153	1145570.40	625727.10
206	1145664.20	626216.06	95.08	B-1154	B-1154	1145678.70	626215.20
58	1147390.34	624936.42	84.95	B-1155	B-1155	1147397.38	624948.45
64	1147302.50	624571.69	85.70	B-1156	B-1156	1147322.90	624521.23
55	1147209.56	625062.18	86.77	B-1157	B-1157	1147219.64	625075.77
205	1145194.92	626669.12	88.74	B-1158	B-1158	1145231.34	626689.50
62	1147285.78	624954.51	88.70	B-1159	B-1159	1147283.63	624943.36
63	1147363.37	624862.14	86.10	B-1161	B-1161	1147361.34	624854.27
57	1147234.91	624815.03	85.55	B-1162	B-1162	1147228.35	624798.04
56	1147170.58	624938.82	85.95	B-1163	B-1163	1147168.53	624936.34
208	1146994.84	624518.63	220.05	B-1164	B-1164	1147039.33	624487.08

Point #	Northing	Easting	Elevation	Description	Description	North	East
453	1147452.97	623961.56	203.40	B-1166	B-1166	1147457.80	623999.10
452	1147688.45	623467.78	202.20	B-1168	B-1168	1147701.00	623461.30
485	1147423.85	622953.71	223.29	B-1170	B-1170	1147423.70	622944.90
482	1146983.44	622538.70	249.49	B-1172	B-1172	1146981.70	622539.10
475	1146476.06	622228.06	225.81	B-1174	B-1174	1146576.52	622249.13
161	1145876.27	622195.21	221.48	B-1176	B-1176	1145876.50	622195.50
162	1145878.82	622196.80	221.51	B-1176A	B-1176A	1145876.50	622195.50
114	1144716.64	622232.17	226.78	B-1185	B-1185	1144712.61	622235.93
422	1144711.88	618818.88	277.51	B-1186	B-1186	1144711.23	618821.49
425	1144710.19	619259.61	277.68	B-1187	B-1187	1144711.23	619257.47
421	1144459.72	618997.50	279.98	B-1189	B-1189	1144461.65	619000.00
412	1144301.60	619490.75	260.30	B-1191	B-1191	1144302.74	619486.81
449	1144217.44	618840.90	243.17	B-1192	B-1192	1144215.60	618833.80
357	1144091.49	619277.79	254.11	B-1193	B-1193	1144089.10	619279.90
389	1147504.69	621630.15	199.35	B-1194	B-1194	1147505.20	621631.60
385	1147574.84	622478.35	220.60	B-1195	B-1195	1147574.40	622481.30
388	1147286.63	622017.51	217.52	B-1196	B-1196	1147286.60	622013.90
390	1146874.74	622003.82	245.60	B-1197	B-1197	1146872.90	622002.10
125	1142599.50	621799.64	218.40	B-3001	B-3001(DH)	1142600.00	621800.00
126	1142599.97	621872.49	218.89	B-3002	B-3002(DH)	1142600.00	621872.50
536	1142597.90	621878.80	218.83	B-3002A	B-3002A	TBD	TBD
124	1142599.85	621727.30	218.29	B-3003	B-3003(DH)	1142600.00	621727.50
300	1142447.42	621867.12	218.51	B-3004	B-3004	1142460.00	621849.00
284	1142717.58	621749.10	219.20	B-3005	B-3005	1142718.00	621750.00
122	1142425.58	621924.99	217.59	B-3006	B-3006	1142718.00	621876.50
156	1142718.50	621876.74	220.78	B-3007	B-3007	1142425.50	621925.00
135	1142425.35	621773.01	217.86	B-3008	B-3008	1142425.50	621773.00
123	1142484.48	621956.58	217.85	B-3009	B-3009	1142484.00	621957.00
297	1142634.86	622024.97	219.69	B-3010	B-3010	1142645.50	622025.00
154	1142776.68	622024.86	220.57	B-3011	B-3011	1142773.00	622025.00
119	1142772.53	621911.91	220.40	B-3012	B-3012	1142773.00	621912.00
286	1142842.89	621825.35	220.51	B-3013	B-3013(C)	1142843.00	621823.50
285	1142799.43	621748.55	220.26	B-3014	B-3014	1142831.00	621750.00
288	1142956.89	621823.95	221.78	B-3015	B-3015	1142957.00	621823.50
118	1142978.42	621913.43	222.48	B-3016	B-3016	1142996.50	621912.00
290	1143034.35	621749.86	222.10	B-3017	B-3017	1143035.00	621750.00
296	1142738.11	622115.75	219.80	B-3018	B-3018	1142738.00	622116.00
295	1142977.36	622167.48	222.42	B-3019	B-3019	1142975.50	622171.00
294	1142977.94	622074.78	222.44	B-3020	B-3020	1142975.50	622079.00
293	1143070.22	622033.23	223.19	B-3021	B-3021	1143069.00	622031.00
120	1143069.84	621873.43	223.86	B-3022	B-3022	1143069.00	621874.00
291	1143061.11	621679.90	222.81	B-3023	B-3023	1143062.00	621680.00
261	1142905.82	621399.65	220.16	B-3024	B-3024	1142904.57	621400.00
264	1142460.42	621425.34	218.21	B-3025	B-3025	1142460.00	621425.00
265	1142290.23	621403.73	215.76	B-3026	B-3026	1142290.00	621400.00
233	1142058.69	621423.26	218.80	B-3027	B-3027	1142148.00	621425.00
232	1141867.30	621408.76	220.12	B-3028	B-3028	1142000.00	621400.00
230	1141881.50	621803.88	220.13	B-3029	B-3029	1141874.00	621800.00
228	1141699.94	621799.67	221.99	B-3030	B-3030	1141675.00	621800.00
322	1141398.73	622042.01	222.70	B-3031	B-3031	1141400.00	622075.00
221	1141158.18	621709.53	220.05	B-3032	B-3032	1141125.00	621800.00
223	1141405.26	621715.21	222.26	B-3033	B-3033	1141400.00	621525.00

Point #	Northing	Easting	Elevation	Description	Description	North	East
225	1141399.76	621914.68	224.67	B-3034	B-3034	1141400.00	621800.00
283	1142729.18	621675.37	219.34	B-3035	B-3035	1142728.70	621676.00
136	1142441.55	621675.96	217.87	B-3036	B-3036	1142441.70	621676.00
289	1143057.42	621768.87	222.94	B-3037	B-3037	1143058.10	621769.50
231	1141882.97	621543.15	220.76	B-3038	B-3038	1141883.00	621542.00
287	1142917.72	621753.54	219.17	B-3039	B-3039	TBD	TBD
254	1142599.53	621000.20	218.88	B-4001	B-4001(DH)	1142600.00	621000.00
252	1142600.19	621072.22	219.06	B-4002	B-4002(DH)	1142600.00	621072.50
255	1142599.93	620927.13	218.99	B-4003	B-4003(DH)	1142600.00	620927.50
251	1142459.68	621046.56	218.45	B-4004	B-4004	1142460.00	621049.00
273	1142714.97	620948.74	221.13	B-4005	B-4005	1142718.00	620950.00
129	1142719.63	621076.36	220.98	B-4006	B-4006	1142718.00	621076.50
248	1142426.19	621125.28	217.90	B-4007	B-4007	1142425.50	621125.00
250	1142424.22	620973.78	218.08	B-4008	B-4008	1142425.00	620973.00
247	1142486.09	621156.86	217.91	B-4009	B-4009	1142484.00	621157.00
259	1142667.58	621249.04	219.09	B-4010	B-4010	1142645.50	621225.00
276	1142773.07	621236.36	219.08	B-4011	B-4011	1142773.00	621225.00
271	1142842.72	621020.31	222.24	B-4013	B-4013(C)	1142843.00	621023.50
272	1142831.99	620950.23	220.74	B-4014	B-4014	1142831.00	620950.00
270	1142773.04	621115.24	220.11	B-4015	B-4015	1142773.00	621112.50
149	1142996.39	621112.90	221.23	B-4016	B-4016	1142996.50	621112.50
275	1143034.80	620949.92	220.94	B-4017	B-4017	1143035.00	620950.00
260	1142735.45	621315.51	220.30	B-4018	B-4018	1142738.00	621316.00
280	1142975.89	621371.41	221.76	B-4019	B-4019	1142975.50	621371.00
279	1142969.39	621280.02	222.79	B-4020	B-4020	1142975.50	621279.00
533	1142973.73	621280.34	222.56	B-4020A	B-4020A	TBD	TBD
148	1143092.61	621247.38	224.55	B-4021	B-4021	1143069.00	621231.00
150	1143081.30	621073.52	220.71	B-4022	B-4022	1143069.00	621074.00
151	1143062.36	620879.81	220.71	B-4023	B-4023	1143062.00	620880.00
152	1142904.78	620601.81	223.80	B-4024	B-4024	1142904.57	620600.00
257	1142510.01	620625.03	220.80	B-4025	B-4025	1142510.00	620625.00
244	1142330.16	620597.72	221.54	B-4026	B-4026	1142330.00	620600.00
243	1142180.05	620633.45	217.73	B-4027	B-4027	1142148.00	620625.00
240	1141984.20	620587.77	219.57	B-4028	B-4028	1142000.00	620600.00
239	1141874.85	620699.95	220.28	B-4029	B-4029	1141874.00	620700.00
237	1141676.68	620698.48	222.35	B-4030	B-4030	1141675.00	620700.00
314	1141399.83	620975.03	222.13	B-4031	B-4031	1141400.00	620975.00
309	1141118.48	620794.64	220.24	B-4032	B-4032	1141125.00	620740.00
310	1141123.72	620794.66	220.22	B-4032A	B-4032A	TBD	TBD
306	1141398.11	620348.78	219.93	B-4033	B-4033	1141400.00	620365.00
311	1141375.68	620795.35	222.79	B-4034	B-4034	1141378.00	620719.00
274	1142729.08	620876.27	220.52	B-4035	B-4035	1142728.70	620876.00
258	1142457.21	620876.25	218.05	B-4036	B-4036	1142457.00	620876.00
406	1146177.05	621807.73	218.99	B-5001	B-5001	TBD	TBD
405	1146339.76	621808.33	241.53	B-5002	B-5002	TBD	TBD
401	1146386.61	621574.70	227.94	B-5003	B-5003	TBD	TBD
400	1146547.79	621568.38	236.61	B-5004	B-5004	TBD	TBD
354	1144134.10	619626.88	247.90	B-6002	B-6002	TBD	TBD
353	1143925.02	619422.80	229.76	B-6003	B-6003	TBD	TBD
352	1143718.15	619473.34	231.59	B-6004	B-6004	TBD	TBD
351	1143717.98	619873.77	242.59	B-6005	B-6005	TBD	TBD
337	1143069.79	620301.79	248.22	B-6006	B-6006	TBD	TBD

Point #	Northing	Easting	Elevation	Description
338	1142730.73	620301.79	222.28	B-6007
383	1145443.82	622676.36	240.11	B-6008
379	1144773.69	621748.18	246.04	B-6009
372	1143893.34	621059.21	263.39	B-6010
376	1144557.94	621261.73	244.00	B-6011
363	1144256.66	620480.54	194.20	B-6012
494	1143169.54	617234.87	251.14	B-6013
492	1143168.15	618281.46	209.79	B-6014
487	1143166.26	619317.85	221.52	B-6015
491	1142909.31	618366.55	204.66	B-6018
640	1142132.73	618344.49	163.94	B-6019
601	1142634.02	619555.91	221.48	B-6020
607	1142185.73	619103.41	209.80	B-6021
613	1142224.77	620040.33	216.23	B-6022
628	1141553.10	619177.88	202.77	B-6023
510	1141545.87	619997.72	216.07	B-6024
633	1140518.65	619189.73	172.69	B-6025
616	1140537.74	619900.15	215.46	B-6026
620	1145779.35	626145.09	96.65	B-6027
619	1145611.36	626062.41	95.70	B-6028
644	1147771.71	623966.62	85.41	B-6029
643	1147588.12	624222.62	88.37	B-6030
435	1144357.46	620185.46	265.76	C-1101ALT
375	1144424.00	621333.43	267.61	C-1102
380	1145011.61	622037.40	236.52	C-1103
460	1145601.77	622746.95	230.19	C-1104
465	1145483.00	623733.68	200.57	C-1105
457	1145533.96	624748.08	138.02	C-1106ALT
469	1147233.91	624202.32	211.92	C-1107
454	1147628.30	623753.23	200.89	C-1108
472	1147622.11	623171.88	209.79	C-1109
481	1147198.95	622740.32	242.39	C-1110
393	1146753.15	622346.15	250.69	C-1111
440	1142610.55	621726.54	218.37	C-3001
439	1142606.51	621872.75	218.89	C-3002
229	1141771.79	621801.62	221.38	C-3003
224	1141542.00	621807.33	223.25	C-3004
222	1141266.89	621792.33	221.27	C-3005
256	1142599.87	620918.51	218.87	C-4001
253	1142599.94	621063.82	219.08	C-4002
238	1141784.64	620708.48	221.16	C-4003
241	1141543.07	620597.67	219.99	C-4004
242	1141249.90	620593.96	220.01	C-4005
576	1144258.24	621799.94	279.61	ER-1103CL
580	1144706.50	621821.45	250.84	ER-1103N
591	1143809.08	621785.19	258.96	ER-1103S
590	1143823.00	621536.77	257.11	ER-1104CL
592	1143820.75	621986.25	257.44	ER-1104E
589	1143821.35	621086.95	258.33	ER-1104W
542	1146579.02	621622.05	243.09	ER-1105
543	1146866.31	621276.81	226.62	ER-1105
544	1146286.04	621961.60	226.63	ER-1105

Description	North	East
B-6007	TBD	TBD
B-6008	TBD	TBD
B-6009	TBD	TBD
B-6010	TBD	TBD
B-6011	TBD	TBD
B-6012	TBD	TBD
B-6013	TBD	TBD
B-6014	TBD	TBD
B-6015	TBD	TBD
B-6018	TBD	TBD
B-6019	TBD	TBD
B-6020	TBD	TBD
B-6021	TBD	TBD
B-6022	TBD	TBD
B-6023	TBD	TBD
B-6024	TBD	TBD
B-6025	TBD	TBD
B-6026	TBD	TBD
B-6027	TBD	TBD
B-6028	TBD	TBD
B-6029	TBD	TBD
B-6030	TBD	TBD

Point #	Northing	Easting	Elevation	Description	Description	North	East
545	1146706.48	621999.64	256.15	ER-1106			
559	1146039.75	621401.84	164.68	ER-1106			
560	1146365.63	621702.00	237.53	ER-1106			
520	1141404.39	621932.86	223.41	ER-3001			
521	1141104.51	621935.56	219.44	ER-3001			
522	1141704.88	621929.94	221.43	ER-3001			
518	1141220.32	621725.95	220.47	ER-3002			
519	1141206.51	622025.58	220.02	ER-3002			
525	1141200.00	622324.03	220.49	ER-3002			
312	1141375.68	620795.35	222.79	ER-4001			
513	1141133.24	620798.50	220.41	ER-4001			
514	1141583.32	620797.68	223.47	ER-4001			
515	1140683.32	620798.70	215.33	ER-4001			
313	1141375.68	620795.35	222.79	ER-4002			
506	1141796.43	620333.57	220.73	ER-4002			
509	1140897.17	620349.94	219.86	ER-4002			
508	1141346.76	620341.65	219.84	ER-4002CL			
315	1142180.05	620633.45	217.73	ER-4003			
504	1142049.90	620629.66	219.61	ER-4003			
507	1141575.77	620263.31	217.95	ER-4003			
505	1141813.06	620446.25	220.68	ER-4003CL			
528	1142060.89	621873.12	218.35	ER-4004			
529	1142060.45	621423.14	218.46	ER-4004			
530	1142057.75	620973.50	219.21	ER-4004			
553	1143195.74	623156.24	217.83	REMI-1101CL			
551	1143344.68	623156.02	218.60	REMI-1101N			
552	1143046.36	623156.23	217.87	REMI-1101S			
555	1143432.28	623846.88	217.84	REMI-1102CL			
556	1143433.70	623995.86	217.75	REMI-1102E			
554	1143431.62	623697.54	217.88	REMI-1102W			
267	1142620.86	621877.24	218.54	REMI-3001EAST			
266	1142620.58	621577.79	218.20	REMI-3001WEST			
268	1142620.95	621150.17	218.71	REMI-4001EAST			
269	1142624.08	620856.90	219.31	REMI-4001WEST			
584	1144312.49	621145.92	264.14	TP-B-1108			
577	1143967.31	621627.50	269.50	TP-B-1117			
596	1143591.74	620401.53	241.17	TP-B-1121			
593	1143603.70	621685.81	240.61	TP-B-1125			
539	1144634.18	622242.15	225.17	TP-B-1185			
573	1147500.59	621708.45	202.73	TP-B-1194			
568	1147648.39	622363.06	212.15	TP-B-1195			
565	1146874.40	622074.57	245.94	TP-B-1197			

Toole Surveying Company, Inc. Report dated May 15, 2007

GA Power Company
Plant Vogtle Units 3 & 4 COL Project

Borehole Surveyor Report

Subsurface Investigation Location
Last Revised 05/15/07

Project Surveyor
Registered Land Surveyor
Barry A. Toole, RLS
GA#2565

GEORGIA
REGISTERED
5.15.07
No 2565
LAND SURVEYOR
BARRY A. TOOLE

Prepared By
Toole Surveying Company, Inc.
308 4th Street Augusta, Georgia 30901
(Voice) 706-722-4118 (Fax) 706-722-4115
www.toolesurveying.com

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PROJECT LAYOUT

Project Control

The project control was provided by Donnie Dryden with Georgia Power Company (GPC) to Greg Schlein with Toole Surveying Co., Inc. (TSC). The project coordinates are based on NAD 27 – horizontal and NGVD 1929 – vertical. The following are the control points used as the basis for the as-built borehole coordinates:

CP-1 (GPC) N 1,141,970.366
E 623,363.196
Elev 223.776

CP-2 (GPC) N 1,141.915.275
E 623,953.193
Elev 244.00

CP-8000 (GPC) N 1,146,604.206
E 624,026.366
Elev 236.26

CP-8006 (GPC) N 1,146776.401
E 624,448.844
Elev 225.22

These points were tied together with a baseline traverse which was used for all measurements. The length of the baseline traverse was 8,347.78 linear feet with a horizontal coordinate error of 0.11' with a resulting precision of 1 in 75,888. The control coordinates were also checked with two Trimble 5700 RTK units, using the GPC monuments as a base. The resulting accuracy was 0.10' +/- of relative positional accuracy.

Bore Site Locations

The borehole locations to be staked were provided by Mr. Greg Lee with Southern Nuclear Operating Company in the following Subsurface Investigation location Plans:

23162-000-CY-0000-00001 new.tif;
23162-000-CY-0000-00002 new.tif

Field Staking and As-built Location

Boreholes were staked and as-built located using Trimble 5700 RTK – GPS (sub-centimeter accuracy) where possible. Conventional surveying methods were used in all other areas. Traverses lines were established to tie in the remaining borehole locations inaccessible by RTK-GPS. These traverse lines tied back to the main project control baseline described above for quality control checks on all horizontal loops. A Nikon DTM-530 Total station (serial # 020396) was used for staking and as-built location of the boreholes. The same traverse lines and procedures were used to perform the as-built locations of the boreholes. A differential level loop was also established (using a DINI 22 Trimble digital level) on all traverse points using the elevations provided with the GPC control points. Level loops were run through as-built borehole locations and back to known control points for quality assurance. An excel spreadsheet was prepared showing the variation between proposed and as-built coordinates.

Daily Survey Activities

Pre & Post Data Collection Checks were performed on a daily basis for staking and as-built location of the completed boreholes. These procedures are briefly described as follows:

RTK-GPS daily location was preceded by checks on at least one of the GPC control points listed under "Project Control" above. A "check shot" was stored using a different point number for inverse comparison. Any separate traverse lines used to stake or locate out-lying boreholes were looped back to the original baseline traverse (at a different point). A new point number was stored at the original control points. Subsequent inverse comparison of those coordinates was made for quality assurance.

EQUIPMENT

DESCRIPTION	SERIAL #
Trimble Zephyr Ant.	#12214559
Trimble Zephyr Geodetic Ant.	#11909699
Trimble Base 5700 Receiver	#440101198
Trimble Rover 5700 Receiver	#440102656
Trimble TS C1 using Ver. 10.70 Software	#220256429
2 meter Fixed Height Tripod 5119-00-yel	N/A
2 meter Fixed Height Carbon Fiber Rod	N/A
Bi Pod	N/A
5700 To Cell Phone Cable	N/A
48 MB Flash Card	N/A
DINI 22 - Digital Level	#700075 A
Digital Barcode Leveling Rod	N/A
Data Collector: Recon & TDS Software	#FS29A13023
Survey Pro (TDS) Software	Version 4.1.6
Nikon DTM-530 Total station	# 020396

1-800-251-1280
931-684-0555
931-685-9505 fax

90 DAY WARRANTY
ON TOTAL STATION REPAIRS

HAYES INSTRUMENT CO.
SERVICE DEPARTMENT
502 S. CANNON BLVD.
SHELBYVILLE, TN 37160

WORK ORDER# 150866

TECHNICIAN T. D.

MODEL OF INSTRUMENT DTM-530
SERIAL NUMBER 020396

CUSTOMER ID#: TOOL03
CUSTOMER NAME: Toole Surveying
E-8000020

DATE RECEIVED 1/23/07
DATE RETURNED 2/01/07

WARRANTY REPAIR ☐ TOPCON ☐ NIKON ☐ SOKKIA
NON-WARRANTY REPAIR ☐ HAYES WARRANTY ☐

OPTICAL & MECHANICAL COLLIMATION CHECK LIST

	CHECK	ADJUST	ERROR
LASER/OPT. PLUMMET		✓	.001
PLATE LEVEL VIAL			5
BULLS EYE BUBBLE		✓	REMOVED
MECH. COMPENSATOR		N/A	
TILT SENSOR(S)			
X SENSOR		✓	-15"
Y SENSOR		✓	20"

Robotic Inst
Tracking Axis

	CHECK	ADJUST	ERROR
DOUBLE CENTERING		✓	2"
90 DEGREE POSITION		✓	6"
PLUNGE	✓		
PEEP SIGHTS	✓		

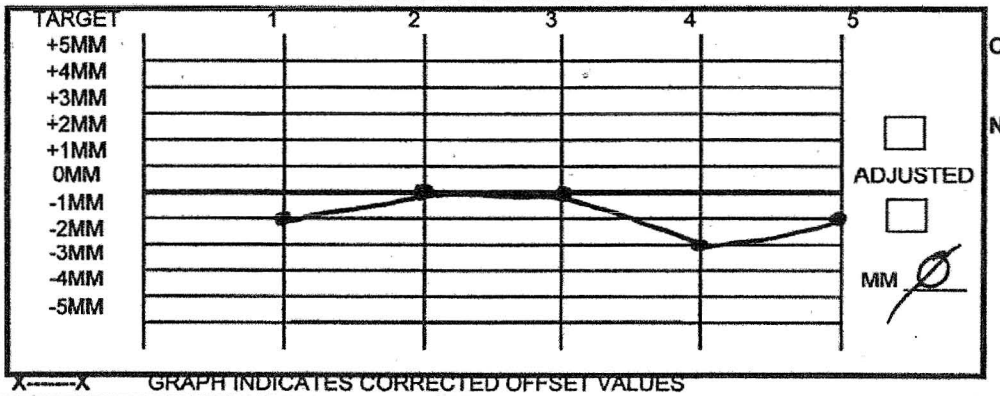
0/180 Rev/plunge H. ANGLE ACCURACY 2 SECS
90/270 Rev/plunge V. ANGLE ACCURACY 2 SECS

COLLIMATION STAND #1

EDM BASELINE TEST

COLLIMATION STAND #1

SLOPE DISTANCE ERROR GRAPH



ADJUSTED ☐
MM Ø

OLD MC CONSTANT _____mm
NEW MC CONSTANT _____mm

CYCLIC ERROR
2 MMSPREAD

Customer PSM constant
30
In Instrument when received

X------X GRAPH INDICATES CORRECTED OFFSET VALUES

TARGET #	1		2		3		4		5	
	ACTUAL		ACTUAL		ACTUAL		ACTUAL		ACTUAL	
V.ANG	90.40.20	90.40.18	90.48.15	90.48.14	90.01.05	90.01.07	84.20.10	84.20.12	85.38.35	85.38.35
H.ANG	264.01.15	264.01.14	266.21.20	266.21.22	273.04.25	273.04.24	61.46.00	61.46.02	97.04.25	97.04.28
SD/MTR	132.154	153	136.380	380	47.108	108	11.659	657	13.065	064
SD/MTR ERROR		-1	ERROR	Ø	ERROR	Ø	ERROR	-2	ERROR	-1
Corrected SD/MTR										

PARTS NEEDED FOR THE REPAIR

PART NUMBER	QNTY
Recell Batt	2

DESCRIPTION OF REPAIRS PERFORMED

- Collimation ☐
- Dust & Adjust ☐
- Clean & Collimation ☒
- Adjusted Compensators ☐
- Adjusted Plunge ☐
- Installed Key Pads ☐
- Rebuilt Tribrach ☐
- Repaired Tangents ☐
- Relubed Focus ☐
- EDM ALIGNMENT ☐
- EDM MOTORS ☐

Additonal LABOR Description:
Replaced ATTN Motor
Recelled Both Batteries

REPAIR LABOR HOURS

FREIGHT
(GROUND - 2nd Day - NDA) PICKUP @ OFFICE

RAW DATA FILES

Field Data Acquisition Dates

1) 01/04/07
2) 01/15/07
3) 01/16/07
4) 03/19/07
5) 03/20/07
6) 03/21/07
7) 03/22/07
8) 03/27/07
9) 04/02/07
10) 04/16/07
11) 04/017/07
12) 04/18/07

Raw Data Report

```
Line#      Record Type                                                    1
                                                                  2
                                                                                                  3                                  4                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
    1  Job:                    Job Name: 06176
    2  Mode Setup:             Azimuth Direction: North
Distance Unit: US Feet               Scale Factor: 1.0                 Earth
Curvature: Off         EDM Offset: 0.0USft             Angle Unit: Degrees
    3  Note:                   Data Collector Serial Number: FS29A13023
    4  Note:                   Activating Total Station: Nikon TOP GUN [Nikon],
COM1, 4800 baud, no parity
    5  Note:                   Foresight Target:My Prism, HR:5.08 (5.08 + 0.0
Offset), Prism Const.:0.0mm
    6  Note:                   Date: 09-09-2004  Time: 01:03:47
    7  Note:                   Foresight Target:My Prism, HR:5.17 (5.17 + 0.0
Offset), Prism Const.:0.0mm
    8  Occupy Pt:              Occupy Point: 18
Northing: 1144622.9235USft           Easting: 622463.3197USft
Elevation: 225.8106USft      Description: #4RS
    9  Note:                   HR:5.17 (5.17 + 0.0 Offset)
   10  Line of Sight (HI/HR):  Height of Instrument: 5.25USft
Height of Rod: 5.17USft
   11  Backsight:              Occupy Point: 18
Backsight Point: 16                  Backsight Azimuth: 173.05361      Backsight
Circle: 0.0000
   12  Note:                   Fixed HR at Backsight:5.17 (5.17 + 0.0 Offset),
Prism Const.:0.0mm
   13  Note:                   BS check 18 - 16:ZE89.5125,SD712.394,HD err= -
0.049611, VD err= -0.068603
   14  Note:                   BS Circle check : angular err= 0.0000
   15  Note:                   BS check 18 - 16:ZE89.5122,SD712.398,HD err= -
0.045637, VD err= -0.058232
   16  Note:                   BS Circle check : angular err= 0.0000
   17  Note:                   BS check 18 - 16:ZE89.5115,SD712.406,HD err= -
0.037698, VD err= -0.034035
   18  Note:                   BS Circle check : angular err= 0.0000
   19  Note:                   BS check 18 - 16:ZE89.5115,SD712.408,HD err= -
0.035698, VD err= -0.03403
   20  Note:                   BS Circle check : angular err= 0.0000
   21  Note:                   BS check 18 - 16:ZE89.5113,SD712.4,HD err= -
0.043716, VD err= -0.027143
   22  Note:                   BS Circle check : angular err= 0.0000
   23  Note:                   BS check 18 - 16:ZE89.5113,SD712.422,HD err= -
0.021716, VD err= -0.027086
   24  Note:                   BS Circle check : angular err= 0.0000
   25  Note:                   BS check 18 - 16:ZE89.5111,SD712.424,HD err= -
0.019733, VD err= -0.020174
   26  Note:                   BS Circle check : angular err= 0.0000
   27  Note:                   BS check 18 - 16:ZE89.5108,SD712.408,HD err= -
0.03576, VD err= -0.009853
   28  Note:                   BS Circle check : angular err= 0.0000
   29  Note:                   BS check 18 - 16:ZE89.5108,SD712.408,HD err= -
0.03576, VD err= -0.009853
   30  Note:                   BS Circle check : angular err= 0.0000
   31  Note:                   BS check 18 - 16:ZE89.5108,SD712.422,HD err= -
0.02176, VD err= -0.009817
   32  Note:                   BS Circle check : angular err= 0.0000
   33  Side Shot:              Occupy Point: 18
Foresight Point: 9100                Angle Right: 0.0001               Zenith
Angle: 89.5108        Slope Distance: 712.412USft     Description: CHK16
   34  Note:                   Date: 09-09-2004  Time: 05:07:56
   35  Note:                   Foresight Target:My Prism, HR:5.1 (5.1 + 0.0
Offset), Prism Const.:0.0mm
```

36 Occupy Pt: Occupy Point: 21
Northing: 1145197.2227USft Easting: 621927.4809USft
Elevation: 238.2771USft Description: #4RS
37 Note: HR:5.1 (5.1 + 0.0 Offset)
38 Line of Sight (HI/HR): Height of Instrument: 5.42USft
Height of Rod: 5.1USft
39 Backsight: Occupy Point: 21
Backsight Point: 23 Backsight Azimuth: 13.075463 Backsight
Circle: 0.0000
40 Note: Fixed HR at Backsight:5.1 (5.1 + 0.0 Offset),
Prism Const.:0.0mm
41 Note: BS check 21 - 23:ZE90.0855,SD482.252,HD err= -
0.0062, VD err= 0.267359
42 Note: BS Circle check : angular err= 0.0000
43 Occupy Pt: Occupy Point: 21
Northing: 1145197.2227USft Easting: 621927.4809USft
Elevation: 238.2771USft Description: #4RS
44 Backsight: Occupy Point: 21
Backsight Point: 23 Backsight Azimuth: 13.075463 Backsight
Circle: 0.0000
45 Note: Fixed HR at Backsight:5.1 (5.1 + 0.0 Offset),
Prism Const.:0.0mm
46 Note: BS check 21 - 23:ZE90.0853,SD482.27,HD err=
0.011812, VD err= 0.271988
47 Note: BS Circle check : angular err= 0.0000
48 Note: BS check 21 - 23:ZE90.0856,SD482.246,HD err= -
0.012206, VD err= 0.265036
49 Note: BS Circle check : angular err= 0.0000
50 Note: BS check 21 - 23:ZE90.0856,SD482.264,HD err=
0.005794, VD err= 0.26499
51 Note: BS Circle check : angular err= 0.0000
52 Note: Date: 09-09-2004 Time: 05:38:02
53 Occupy Pt: Occupy Point: 25
Northing: 1145943.1434USft Easting: 623027.6303USft
Elevation: 224.9629USft Description: #4RS
54 Backsight: Occupy Point: 25
Backsight Point: 27 Backsight Azimuth: 55.500261 Backsight
Circle: 0.0000
55 Note: Fixed HR at Backsight:5.1 (5.1 + 0.0 Offset),
Prism Const.:0.0mm
56 Note: BS check 25 - 27:ZE90.0855,SD482.262,HD err= -
395.546515, VD err= -28.634167
57 Note: BS Circle check : angular err= 0.0000
58 Store Point: Point Name: 21
Northing: 1145197.2227USft Easting: 621927.4809USft
Elevation: 238.183USft Description: #4RS
59 Store Point: Point Name: 23
Northing: 1145666.8682USft Easting: 622037.046USft
Elevation: 237.279USft Description: #4RS
60 Occupy Pt: Occupy Point: 21
Northing: 1145197.2227USft Easting: 621927.4809USft
Elevation: 238.183USft Description: #4RS
61 Backsight: Occupy Point: 21
Backsight Point: 23 Backsight Azimuth: 13.075463 Backsight
Circle: 0.0000
62 Note: Fixed HR at Backsight:5.1 (5.1 + 0.0 Offset),
Prism Const.:0.0mm
63 Note: BS check 21 - 23:ZE90.0853,SD482.262,HD err=
0.003812, VD err= -0.022191
64 Note: BS Circle check : angular err= 0.0000
65 Note: BS check 21 - 23:ZE90.0853,SD482.26,HD err=
0.001812, VD err= -0.022186
66 Note: BS Circle check : angular err= 0.0000
67 Note: BS check 21 - 23:ZE90.0849,SD482.262,HD err=
0.003836, VD err= -0.012839
68 Note: BS Circle check : angular err= 0.0000
69 Side Shot: Occupy Point: 21

Foresight Point: 9101 Angle Right: 0.0000 Zenith
Angle: 90.0849 Slope Distance: 482.27USft Description: CHK23
70 Occupy Pt: Occupy Point: 21
Northing: 1145197.2227USft Easting: 621927.4809USft
Elevation: 238.183USft Description: #4RS
71 Backsight: Occupy Point: 21
Backsight Point: 23 Backsight Azimuth: 13.075463 Backsight
Circle: 0.0000
72 Note: Fixed HR at Backsight:5.1 (5.1 + 0.0 Offset),
Prism Const.:0.0mm
73 Note: BS check 21 - 23:ZE90.0854,SD482.27,HD err=
0.011806, VD err= -0.02455
74 Note: BS Circle check : angular err= 0.0000
75 Note: BS check 21 - 23:ZE90.0858,SD482.258,HD err= -
0.000218, VD err= -0.033871
76 Note: BS Circle check : angular err= 0.0000
77 Note: BS check 21 - 23:ZE90.0854,SD482.262,HD err=
0.003806, VD err= -0.024529
78 Note: BS Circle check : angular err= 0.0000
79 Note: Date: 09-09-2004 Time: 05:53:51
80 Note: Date: 09-09-2004 Time: 06:09:51
81 Occupy Pt: Occupy Point: 70
Northing: 1145923.8408USft Easting: 622542.2584USft
Elevation: 229.101USft Description: NS
82 Note: HR:5.1 (5.1 + 0.0 Offset)
83 Line of Sight (HI/HR): Height of Instrument: 5.22USft
Height of Rod: 5.1USft
84 Backsight: Occupy Point: 70
Backsight Point: 23 Backsight Azimuth: 243.02246 Backsight
Circle: 0.0000
85 Note: Fixed HR at Backsight:5.1 (5.1 + 0.0 Offset),
Prism Const.:0.0mm
86 Note: BS check 70 - 23:ZE89.1230,SD566.884,HD err=
0.019085, VD err= -0.225505
87 Note: BS Circle check : angular err= 0.0000
88 Note: BS check 70 - 23:ZE89.1230,SD566.876,HD err=
0.011085, VD err= -0.225616
89 Note: BS Circle check : angular err= 0.0000
90 Occupy Pt: Occupy Point: 21
Northing: 1145197.2227USft Easting: 621927.4809USft
Elevation: 238.183USft Description: #4RS
91 Backsight: Occupy Point: 21
Backsight Point: 23 Backsight Azimuth: 13.075463 Backsight
Circle: 0.0000
92 Note: Fixed HR at Backsight:5.1 (5.1 + 0.0 Offset),
Prism Const.:0.0mm
93 Note: BS check 21 - 23:ZE89.1227,SD566.872,HD err=
84.561197, VD err= 8.864573
94 Note: BS Circle check : angular err= 0.0000
95 Store Point: Point Name: 70
Northing: 1145923.8408USft Easting: 622542.2584USft
Elevation: 228.875USft Description: NS
96 Occupy Pt: Occupy Point: 70
Northing: 1145923.8408USft Easting: 622542.2584USft
Elevation: 228.875USft Description: NS
97 Backsight: Occupy Point: 70
Backsight Point: 23 Backsight Azimuth: 243.02246 Backsight
Circle: 0.0000
98 Note: Fixed HR at Backsight:5.1 (5.1 + 0.0 Offset),
Prism Const.:0.0mm
99 Note: BS check 70 - 23:ZE89.1228,SD566.874,HD err=
0.00901, VD err= -0.446147
100 Note: BS Circle check : angular err= 0.0000
101 Occupy Pt: Occupy Point: 21
Northing: 1145197.2227USft Easting: 621927.4809USft
Elevation: 238.183USft Description: #4RS
102 Backsight: Occupy Point: 21

Backsight Point: 23 Backsight Azimuth: 13.075463 Backsight Circle: 0.0000
103 Note: Fixed HR at Backsight:5.1 (5.1 + 0.0 Offset), Prism Const.:0.0mm
104 Note: BS check 21 - 23:ZE89.1226,SD566.882,HD err= 84.571158, VD err= 8.867459
105 Note: BS Circle check : angular err= 0.0000
106 Store Point: Point Name: 70
Northing: 1145923.8408USft Easting: 622542.2584USft
Elevation: 229.327USft Description: NS
107 Occupy Pt: Occupy Point: 70
Northing: 1145923.8408USft Easting: 622542.2584USft
Elevation: 229.327USft Description: NS
108 Backsight: Occupy Point: 70
Backsight Point: 23 Backsight Azimuth: 243.02246 Backsight Circle: 0.0000
109 Note: Fixed HR at Backsight:5.1 (5.1 + 0.0 Offset), Prism Const.:0.0mm
110 Note: BS check 70 - 23:ZE89.1225,SD566.886,HD err= 0.020895, VD err= 0.014263
111 Note: BS Circle check : angular err= 0.0000
112 Note: BS check 70 - 23:ZE89.1225,SD566.886,HD err= 0.020895, VD err= 0.014263
113 Note: BS Circle check : angular err= 0.0000
114 Note: BS check 70 - 23:ZE89.1223,SD566.886,HD err= 0.020818, VD err= 0.019759
115 Note: BS Circle check : angular err= 0.0000
116 Note: BS check 70 - 23:ZE89.1225,SD566.88,HD err= 0.014895, VD err= 0.01418
117 Note: BS Circle check : angular err= 0.0000
118 Side Shot: Occupy Point: 70
Foresight Point: 9102 Angle Right: 0.0000 Zenith Angle: 89.1226 Slope Distance: 566.874USft Description: CHK23
119 Occupy Pt: Occupy Point: 70
Northing: 1145923.8408USft Easting: 622542.2584USft
Elevation: 229.327USft Description: NS
120 Backsight: Occupy Point: 70
Backsight Point: 23 Backsight Azimuth: 243.02246 Backsight Circle: 0.0000
121 Note: Fixed HR at Backsight:5.1 (5.1 + 0.0 Offset), Prism Const.:0.0mm
122 Note: BS check 70 - 23:ZE89.1233,SD566.876,HD err= 0.011199, VD err= -0.00786
123 Note: BS Circle check : angular err= 0.0000
124 Note: Foresight Target:My Prism, HR:5.22 (5.22 + 0.0 Offset), Prism Const.:0.0mm
125 Note: HR:5.22 (5.22 + 0.0 Offset)
126 Line of Sight (HI/HR): Height of Instrument: 5.22USft
Height of Rod: 5.22USft
127 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
128 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0004
129 Repeat Directional: Foresight Reverse
Set: 1 Angle: 251.3100
130 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 271.3557
131 Multiple Distances: Set: 1
Slope Distance: 953.762USft
132 Repeat Foresight: Occupy Point: 70
Foresight Point: 9103 Angle Right: 251.3100 Zenith Angle: 271.3557 Slope Distance: 953.762USft Height of Rod: 5.22USft
Description: #4RF/TR-7
133 Repeat Directional: Foresight Direct
Set: 1 Angle: 71.3052
134 Repeat Directional: Zenith Direct
Set: 1 Zenith: 88.2411

135 Multiple Distances: Set: 1
Slope Distance: 953.726USft
136 Repeat Foresight: Occupy Point: 70
Foresight Point: 9103 Angle Right: 71.3052 Zenith
Angle: 88.2411 Slope Distance: 953.726USft Height of Rod: 5.22USft
Description: #4RF/TR-7
137 Note: Horizontal Angle Error: 0.0004
138 Note: Zenith Angle Error: 0.0008
139 Note: Slope Distance Error: 0.036
140 Note: Horizontal Angle Error compares to the average:
0.0000
141 Note: Zenith Angle Error compares to the average:
0.0000
142 Note: Slope Distance Error compares to the average: 0.0
143 Side Shot: Occupy Point: 70
Foresight Point: 9103 Angle Right: 71.3054 Zenith
Angle: 88.2407 Slope Distance: 953.744USft Description: #4RF/TR-7
144 Note: Date: 09-09-2004 Time: 06:36:30
145 Store Point: Point Name: 9104
Northing: 1145444.05953USft Easting: 622676.309509USft
Elevation: 239.778802USft Description: PT9018
146 Cut Sheet: Elevation: 239.778802USft
Design Grade: 0.0
147 Design Point/Location: Point Name: 9018
Northing: 1145444.1USft Easting: 622676.3USft
Elevation: 0.0USft Description: B-6008
148 Stakeout Deltas: Delta Northing: 0.04047USft
Delta Easting: -0.009509USft Delta Elevation: -239.778802USft
149 Stakeout: Occupy Point: 70
Foresight Point: 9104 Angle Right: 281.2058 Zenith
Angle: 88.4753 Slope Distance: 498.266USft Description: PT9018
150 Store Point: Point Name: 9104
Northing: 1145444.05953USft Easting: 622676.309509USft
Elevation: 240.098802USft Description: PT9018
151 Store Point: Point Name: 9104
Northing: 1145444.05953USft Easting: 622676.309509USft
Elevation: 240.098802USft Description: PT9018/B-6008
152 Note: Foresight Target:My Prism, HR:5.1 (5.1 + 0.0
Offset), Prism Const.:0.0mm
153 Note: HR:5.1 (5.1 + 0.0 Offset)
154 Line of Sight (HI/HR): Height of Instrument: 5.22USft
Height of Rod: 5.1USft
155 Side Shot: Occupy Point: 70
Foresight Point: 9105 Angle Right: 359.5958 Zenith
Angle: 89.1228 Slope Distance: 566.882USft Description: CHK23
156 Note: Foresight Target:My Prism, HR:5.17 (5.17 + 0.0
Offset), Prism Const.:0.0mm
157 Occupy Pt: Occupy Point: 9103
Northing: 1146592.723232USft Easting: 621862.908365USft
Elevation: 255.924741USft Description: #4RF/TR-7
158 Note: HR:5.17 (5.17 + 0.0 Offset)
159 Line of Sight (HI/HR): Height of Instrument: 5.24USft
Height of Rod: 5.17USft
160 Backsight: Occupy Point: 9103
Backsight Point: 70 Backsight Azimuth: 134.33186 Backsight
Circle: 0.0000
161 Note: Fixed HR at Backsight:5.17 (5.17 + 0.0 Offset),
Prism Const.:0.0mm
162 Note: BS check 9103 - 70:ZE91.3633,SD953.732,HD err= -
0.017171, VD err= -0.114546
163 Note: BS Circle check : angular err= 0.0000
164 Note: BS check 9103 - 70:ZE91.3633,SD953.73,HD err= -
0.01917, VD err= -0.11449
165 Note: BS Circle check : angular err= 0.0000
166 Note: BS check 9103 - 70:ZE91.3633,SD953.734,HD err= -
0.015172, VD err= -0.114602
167 Note: BS Circle check : angular err= 0.0000

168 Note: BS check 9103 - 70:ZE91.3633,SD953.732,HD err= -0.017171, VD err= -0.114546
169 Note: BS Circle check : angular err= 0.0000
170 Occupy Pt: Occupy Point: 21
Northing: 1145197.2227USft Easting: 621927.4809USft
Elevation: 238.183USft Description: #4RS
171 Backsight: Occupy Point: 21
Backsight Point: 70 Backsight Azimuth: 40.140209 Backsight Circle: 0.0000
172 Note: Fixed HR at Backsight:5.17 (5.17 + 0.0 Offset), Prism Const.:0.0mm
173 Note: BS check 21 - 70:ZE91.3633,SD953.728,HD err= 1.550834, VD err= -17.856174
174 Note: BS Circle check : angular err= 0.0000
175 Store Point: Point Name: 9103
Northing: 1146592.723232USft Easting: 621862.908365USft
Elevation: 256.034741USft Description: #4RF/TR-7
176 Occupy Pt: Occupy Point: 9103
Northing: 1146592.723232USft Easting: 621862.908365USft
Elevation: 256.034741USft Description: #4RF/TR-7
177 Backsight: Occupy Point: 9103
Backsight Point: 70 Backsight Azimuth: 134.33186 Backsight Circle: 0.0000
178 Note: Fixed HR at Backsight:5.17 (5.17 + 0.0 Offset), Prism Const.:0.0mm
179 Note: BS check 9103 - 70:ZE91.3635,SD953.724,HD err= -0.025428, VD err= -0.013565
180 Note: BS Circle check : angular err= 0.0000
181 Note: BS check 9103 - 70:ZE91.3633,SD953.726,HD err= -0.023169, VD err= -0.004377
182 Note: BS Circle check : angular err= 0.0000
183 Side Shot: Occupy Point: 9103
Foresight Point: 9106 Angle Right: 0.0000 Zenith Angle: 91.3633 Slope Distance: 953.726USft Description: CHK70
184 Note: Date: 09-09-2004 Time: 07:38:30
185 Note: Foresight Target:My Prism, HR:4.9 (4.9 + 0.0 Offset), Prism Const.:0.0mm
186 Note: HR:4.9 (4.9 + 0.0 Offset)
187 Line of Sight (HI/HR): Height of Instrument: 5.24USft
Height of Rod: 4.9USft
188 Note: Foresight Target:My Prism, HR:7.29 (7.29 + 0.0 Offset), Prism Const.:0.0mm
189 Note: HR:7.29 (7.29 + 0.0 Offset)
190 Line of Sight (HI/HR): Height of Instrument: 5.24USft
Height of Rod: 7.29USft
191 Store Point: Point Name: 9107
Northing: 1146546.999651USft Easting: 621568.000249USft
Elevation: 236.93986USft Description: PT9004/B-5004
192 Cut Sheet: Elevation: 236.93986USft
Design Grade: 0.0
193 Design Point/Location: Point Name: 9004
Northing: 1146547.0USft Easting: 621568.0USft
Elevation: 0.0USft Description: B-5004
194 Stakeout Deltas: Delta Northing: 0.000349USft
Delta Easting: -0.000249USft Delta Elevation: -236.93986USft
195 Stakeout: Occupy Point: 9103
Foresight Point: 9107 Angle Right: 126.3754 Zenith Angle: 93.1608 Slope Distance: 298.918USft Description: PT9004/B-5004
196 Note: Date: 09-09-2004 Time: 07:53:34
197 Store Point: Point Name: 9108
Northing: 1146360.136842USft Easting: 621696.627093USft
Elevation: 237.417081USft Description: PT9027/ER-1105/6
198 Cut Sheet: Elevation: 237.417081USft
Design Grade: 0.0
199 Design Point/Location: Point Name: 9027
Northing: 1146360.1USft Easting: 621696.6USft
Elevation: 0.0USft Description: ER-1105-1106

200 Stakeout Deltas: Delta Northing: -0.036842USft
Delta Easting: -0.027093USft Delta Elevation: -237.417081USft
201 Stakeout: Occupy Point: 9103
Foresight Point: 9108 Angle Right: 81.0024 Zenith
Angle: 93.1859 Slope Distance: 286.392USft Description: PT9027/ER-
1105/6
202 Occupy Pt: Occupy Point: 9103
Northing: 1146592.723232USft Easting: 621862.908365USft
Elevation: 256.034741USft Description: #4RF/TR-7
203 Backsight: Occupy Point: 9103
Backsight Point: 70 Backsight Azimuth: 134.33186 Backsight
Circle: 0.0000
204 Note: Fixed HR at Backsight:5.17 (5.17 + 0.0 Offset),
Prism Const.:0.0mm
205 Note: BS check 9103 - 70:ZE91.3628,SD953.72,HD err= -
0.028518, VD err= 0.018901
206 Note: BS Circle check : angular err= 0.0000
207 Note: Foresight Target:My Prism, HR:5.14 (5.14 + 0.0
Offset), Prism Const.:0.0mm
208 Note: HR:5.14 (5.14 + 0.0 Offset)
209 Line of Sight (HI/HR): Height of Instrument: 5.24USft
Height of Rod: 5.14USft
210 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
211 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0003
212 Repeat Directional: Foresight Reverse
Set: 1 Angle: 260.5330
213 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 266.1801
214 Multiple Distances: Set: 1
Slope Distance: 278.756USft
215 Repeat Foresight: Occupy Point: 9103
Foresight Point: 9109 Angle Right: 260.5330 Zenith
Angle: 266.1801 Slope Distance: 278.756USft Height of Rod: 5.14USft
Description: NS
216 Repeat Directional: Foresight Direct
Set: 1 Angle: 80.5327
217 Repeat Directional: Zenith Direct
Set: 1 Zenith: 93.4211
218 Multiple Distances: Set: 1
Slope Distance: 278.756USft
219 Repeat Foresight: Occupy Point: 9103
Foresight Point: 9109 Angle Right: 80.5327 Zenith
Angle: 93.4211 Slope Distance: 278.756USft Height of Rod: 5.14USft
Description: NS
220 Note: Horizontal Angle Error: 0.0000
221 Note: Zenith Angle Error: 0.0012
222 Note: Slope Distance Error: 0.0
223 Note: Horizontal Angle Error compares to the average:
0.0000
224 Note: Zenith Angle Error compares to the average:
0.0000
225 Note: Slope Distance Error compares to the average: 0.0
226 Side Shot: Occupy Point: 9103
Foresight Point: 9109 Angle Right: 80.5327 Zenith
Angle: 93.4205 Slope Distance: 278.756USft Description: NS
227 Note: Date: 09-09-2004 Time: 08:09:36
228 Note: Foresight Target:My Prism, HR:5.24 (5.24 + 0.0
Offset), Prism Const.:0.0mm
229 Occupy Pt: Occupy Point: 9109
Northing: 1146366.104889USft Easting: 621701.5851USft
Elevation: 238.13923USft Description: NS
230 Note: HR:5.24 (5.24 + 0.0 Offset)
231 Line of Sight (HI/HR): Height of Instrument: 5.39USft
Height of Rod: 5.24USft
232 Backsight: Occupy Point: 9109

Backsight Point: 9103 Backsight Azimuth: 35.26456 Backsight Circle: 0.0000
233 Note: Fixed HR at Backsight:5.24 (5.24 + 0.0 Offset), Prism Const.:0.0mm
234 Note: BS check 9109 - 9103:ZE86.2113,SD278.734,HD err= -0.004809, VD err= -0.018436
235 Note: BS Circle check : angular err= 0.0000
236 Side Shot: Occupy Point: 9109
Foresight Point: 9110 Angle Right: 0.0000 Zenith Angle: 86.2114 Slope Distance: 278.734USft Description: CHK9103
237 Note: Foresight Target:My Prism, HR:4.9 (4.9 + 0.0 Offset), Prism Const.:0.0mm
238 Note: HR:4.9 (4.9 + 0.0 Offset)
239 Line of Sight (HI/HR): Height of Instrument: 5.39USft
Height of Rod: 4.9USft
240 Store Point: Point Name: 9111
Northing: 1146386.998078USft Easting: 621568.009783USft
Elevation: 227.582438USft Description: PT9003/B-5003
241 Cut Sheet: Elevation: 227.582438USft
Design Grade: 0.0
242 Design Point/Location: Point Name: 9003
Northing: 1146387.0USft Easting: 621568.0USft
Elevation: 0.0USft Description: B-5003
243 Stakeout Deltas: Delta Northing: 0.001922USft
Delta Easting: -0.009783USft Delta Elevation: -227.582438USft
244 Stakeout: Occupy Point: 9109
Foresight Point: 9111 Angle Right: 243.2638 Zenith Angle: 94.4016 Slope Distance: 135.65USft Description: PT9003/B-5003
245 Store Point: Point Name: 9112
Northing: 1146342.003775USft Easting: 621807.982615USft
Elevation: 242.215921USft Description: PT9002/B-5002
246 Cut Sheet: Elevation: 242.215921USft
Design Grade: 0.0
247 Design Point/Location: Point Name: 9002
Northing: 1146342.0USft Easting: 621808.0USft
Elevation: 0.0USft Description: B-5002
248 Stakeout Deltas: Delta Northing: -0.003775USft
Delta Easting: 0.017385USft Delta Elevation: -242.215921USft
249 Stakeout: Occupy Point: 9109
Foresight Point: 9112 Angle Right: 67.1902 Zenith Angle: 88.0701 Slope Distance: 109.152USft Description: PT9002/B-5002
250 Note: Date: 09-09-2004 Time: 08:30:51
251 Occupy Pt: Occupy Point: 9109
Northing: 1146366.104889USft Easting: 621701.5851USft
Elevation: 238.13923USft Description: NS
252 Backsight: Occupy Point: 9109
Backsight Point: 9103 Backsight Azimuth: 35.26456 Backsight Circle: 0.0000
253 Note: Fixed HR at Backsight:5.24 (5.24 + 0.0 Offset), Prism Const.:0.0mm
254 Note: BS check 9109 - 9103:ZE86.2114,SD278.734,HD err= -0.004723, VD err= -0.019784
255 Note: BS Circle check : angular err= 0.0000
256 Note: Foresight Target:My Prism, HR:5.39 (5.39 + 0.0 Offset), Prism Const.:0.0mm
257 Note: HR:5.39 (5.39 + 0.0 Offset)
258 Line of Sight (HI/HR): Height of Instrument: 5.39USft
Height of Rod: 5.39USft
259 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
260 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0001
261 Repeat Directional: Foresight Reverse
Set: 1 Angle: 304.2259
262 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 264.3757
263 Multiple Distances: Set: 1

Slope Distance: 207.092USft
  264 Repeat Foresight: Occupy Point: 9109
Foresight Point: 9113 Angle Right: 304.2259 Zenith
Angle: 264.3757 Slope Distance: 207.092USft Height of Rod: 5.39USft
Description: NS
  265 Repeat Directional: Foresight Direct
Set: 1 Angle: 124.2254
  266 Repeat Directional: Zenith Direct
Set: 1 Zenith: 95.2204
  267 Multiple Distances: Set: 1
Slope Distance: 207.092USft
  268 Repeat Foresight: Occupy Point: 9109
Foresight Point: 9113 Angle Right: 124.2254 Zenith
Angle: 95.2204 Slope Distance: 207.092USft Height of Rod: 5.39USft
Description: NS
  269 Note: Horizontal Angle Error: 0.0004
  270 Note: Zenith Angle Error: 0.0001
  271 Note: Slope Distance Error: 0.0
  272 Note: Horizontal Angle Error compares to the average:
0.0000
  273 Note: Zenith Angle Error compares to the average:
0.0000
  274 Note: Slope Distance Error compares to the average: 0.0
  275 Side Shot: Occupy Point: 9109
Foresight Point: 9113 Angle Right: 124.2256 Zenith
Angle: 95.22035 Slope Distance: 207.092USft Description: NS
  276 Note: Foresight Target:My Prism, HR:5.28 (5.28 + 0.0
Offset), Prism Const.:0.0mm
  277 Occupy Pt: Occupy Point: 9113
Northing: 1146172.567697USft Easting: 621772.684702USft
Elevation: 218.766602USft Description: NS
  278 Note: HR:5.28 (5.28 + 0.0 Offset)
  279 Line of Sight (HI/HR): Height of Instrument: 5.26USft
Height of Rod: 5.28USft
  280 Backsight: Occupy Point: 9113
Backsight Point: 9109 Backsight Azimuth: 339.49416 Backsight
Circle: 0.0000
  281 Note: Fixed HR at Backsight:5.28 (5.28 + 0.0 Offset),
Prism Const.:0.0mm
  282 Note: BS check 9113 - 9109:ZE84.3801,SD207.084,HD err=
-0.007542, VD err= -0.025246
  283 Note: BS Circle check : angular err= 0.0000
  284 Note: Foresight Target:My Prism, HR:5.27 (5.27 + 0.0
Offset), Prism Const.:0.0mm
  285 Occupy Pt: Occupy Point: 9113
Northing: 1146172.567697USft Easting: 621772.684702USft
Elevation: 218.766602USft Description: NS
  286 Note: HR:5.27 (5.27 + 0.0 Offset)
  287 Line of Sight (HI/HR): Height of Instrument: 5.26USft
Height of Rod: 5.27USft
  288 Backsight: Occupy Point: 9113
Backsight Point: 9109 Backsight Azimuth: 339.49416 Backsight
Circle: 0.0000
  289 Note: Backsight HR:5.27 (5.27 + 0.0 Offset), Prism
Const.:0.0mm
  290 Note: BS check 9113 - 9109:ZE84.3804,SD207.084,HD err=
-0.007261, VD err= -0.018245
  291 Note: BS Circle check : angular err= 0.0000
  292 Side Shot: Occupy Point: 9113
Foresight Point: 9114 Angle Right: 0.0000 Zenith
Angle: 84.3804 Slope Distance: 207.082USft Description: CHK9109
  293 Note: Foresight Target:My Prism, HR:4.9 (4.9 + 0.0
Offset), Prism Const.:0.0mm
  294 Note: HR:4.9 (4.9 + 0.0 Offset)
  295 Line of Sight (HI/HR): Height of Instrument: 5.26USft
Height of Rod: 4.9USft
  296 Store Point: Point Name: 9115

Northing: 1146176.998589USft Easting: 621807.989508USft
Elevation: 219.255464USft Description: PT9001/B-5001
297 Cut Sheet: Elevation: 219.255464USft
Design Grade: 0.0
298 Design Point/Location: Point Name: 9001
Northing: 1146177.0USft Easting: 621808.0USft
Elevation: 0.0USft Description: B-5001
299 Stakeout Deltas: Delta Northing: 0.001411USft
Delta Easting: 0.010492USft Delta Elevation: -219.255464USft
300 Stakeout: Occupy Point: 9113
Foresight Point: 9115 Angle Right: 103.0106 Zenith
Angle: 89.4733 Slope Distance: 35.582USft Description: PT9001/B-5001
301 Note: Date: 09-09-2004 Time: 08:52:16
302 Occupy Pt: Occupy Point: 9113
Northing: 1146172.567697USft Easting: 621772.684702USft
Elevation: 218.766602USft Description: NS
303 Backsight: Occupy Point: 9113
Backsight Point: 9109 Backsight Azimuth: 339.49416 Backsight
Circle: 0.0000
304 Note: Backsight HR:4.9 (4.9 + 0.0 Offset), Prism
Const.:0.0mm
305 Note: BS check 9113 - 9109:ZE84.3803,SD207.086,HD err=
-0.005363, VD err= 0.352941
306 Note: BS Circle check : angular err= 0.0000
307 Occupy Pt: Occupy Point: 9113
Northing: 1146172.567697USft Easting: 621772.684702USft
Elevation: 218.766602USft Description: NS
308 Backsight: Occupy Point: 9113
Backsight Point: 9109 Backsight Azimuth: 339.49416 Backsight
Circle: 0.0000
309 Note: Fixed HR at Backsight:5.27 (5.27 + 0.0 Offset),
Prism Const.:0.0mm
310 Note: BS check 9113 - 9109:ZE84.3803,SD207.08,HD err= -
0.011337, VD err= -0.01762
311 Note: BS Circle check : angular err= 0.0000
312 Note: Foresight Target:My Prism, HR:5.09 (5.09 + 0.0
Offset), Prism Const.:0.0mm
313 Note: HR:5.09 (5.09 + 0.0 Offset)
314 Line of Sight (HI/HR): Height of Instrument: 5.26USft
Height of Rod: 5.09USft
315 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
316 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0003
317 Repeat Directional: Foresight Reverse
Set: 1 Angle: 323.2652
318 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 267.5744
319 Multiple Distances: Set: 1
Slope Distance: 249.59USft
320 Repeat Foresight: Occupy Point: 9113
Foresight Point: 9116 Angle Right: 323.2652 Zenith
Angle: 267.5744 Slope Distance: 249.59USft Height of Rod: 5.09USft
Description: NS
321 Repeat Directional: Foresight Direct
Set: 1 Angle: 143.2648
322 Repeat Directional: Zenith Direct
Set: 1 Zenith: 92.0223
323 Multiple Distances: Set: 1
Slope Distance: 249.59USft
324 Repeat Foresight: Occupy Point: 9113
Foresight Point: 9116 Angle Right: 143.2648 Zenith
Angle: 92.0223 Slope Distance: 249.59USft Height of Rod: 5.09USft
Description: NS
325 Note: Horizontal Angle Error: 0.0001
326 Note: Zenith Angle Error: 0.0007
327 Note: Slope Distance Error: 0.0

328 Note: Horizontal Angle Error compares to the average: 0.0000
329 Note: Zenith Angle Error compares to the average: 0.0000
330 Note: Slope Distance Error compares to the average: 0.0
331 Side Shot: Occupy Point: 9113
Foresight Point: 9116 Angle Right: 143.26485 Zenith Angle: 92.02195 Slope Distance: 249.59USft Description: NS
332 Note: Foresight Target:My Prism, HR:4.93 (4.93 + 0.0 Offset), Prism Const.:0.0mm
333 Occupy Pt: Occupy Point: 9116
Northing: 1146035.714707USft Easting: 621981.221475USft
Elevation: 210.05734USft Description: NS
334 Note: HR:4.93 (4.93 + 0.0 Offset)
335 Line of Sight (HI/HR): Height of Instrument: 5.34USft
Height of Rod: 4.93USft
336 Backsight: Occupy Point: 9116
Backsight Point: 9113 Backsight Azimuth: 303.16301 Backsight Circle: 0.0000
337 Note: Fixed HR at Backsight:4.93 (4.93 + 0.0 Offset), Prism Const.:0.0mm
338 Note: BS check 9116 - 9113:ZE88.0554,SD249.574,HD err= 0.004539, VD err= -0.017336
339 Note: BS Circle check : angular err= 0.0000
340 Side Shot: Occupy Point: 9116
Foresight Point: 9117 Angle Right: 0.0000 Zenith Angle: 88.0554 Slope Distance: 249.572USft Description: CHK9113
341 Note: Foresight Target:My Prism, HR:5.02 (5.02 + 0.0 Offset), Prism Const.:0.0mm
342 Note: HR:5.02 (5.02 + 0.0 Offset)
343 Line of Sight (HI/HR): Height of Instrument: 5.34USft
Height of Rod: 5.02USft
344 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
345 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0004
346 Repeat Directional: Foresight Reverse
Set: 1 Angle: 62.1735
347 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 273.3752
348 Multiple Distances: Set: 1
Slope Distance: 226.754USft
349 Repeat Foresight: Occupy Point: 9116
Foresight Point: 9118 Angle Right: 62.1735 Zenith Angle: 273.3752 Slope Distance: 226.754USft Height of Rod: 5.02USft
Description: NS
350 Repeat Directional: Foresight Direct
Set: 1 Angle: 242.1732
351 Repeat Directional: Zenith Direct
Set: 1 Zenith: 86.2156
352 Multiple Distances: Set: 1
Slope Distance: 226.742USft
353 Repeat Foresight: Occupy Point: 9116
Foresight Point: 9118 Angle Right: 242.1732 Zenith Angle: 86.2156 Slope Distance: 226.742USft Height of Rod: 5.02USft
Description: NS
354 Note: Horizontal Angle Error: 0.0001
355 Note: Zenith Angle Error: 0.0012
356 Note: Slope Distance Error: 0.012
357 Note: Horizontal Angle Error compares to the average: 0.0000
358 Note: Zenith Angle Error compares to the average: 0.0000
359 Note: Slope Distance Error compares to the average: 0.0
360 Side Shot: Occupy Point: 9116
Foresight Point: 9118 Angle Right: 242.17315 Zenith Angle: 86.2202 Slope Distance: 226.748USft Description: NS

361 Note: Foresight Target:My Prism, HR:5.22 (5.22 + 0.0 Offset), Prism Const.:0.0mm
362 Occupy Pt: Occupy Point: 9118 Northing: 1145810.489689USft Easting: 621959.268485USft Elevation: 224.744425USft Description: NS
363 Note: HR:5.22 (5.22 + 0.0 Offset)
364 Line of Sight (HI/HR): Height of Instrument: 5.15USft Height of Rod: 5.22USft
365 Backsight: Occupy Point: 9118 Backsight Point: 9116 Backsight Azimuth: 5.34016 Backsight Circle: 0.0000
366 Note: Fixed HR at Backsight:5.22 (5.22 + 0.0 Offset), Prism Const.:0.0mm
367 Note: BS check 9118 - 9116:ZE93.4157,SD226.77,HD err= 0.005155, VD err= -0.013616
368 Note: BS Circle check : angular err= 0.0000
369 Side Shot: Occupy Point: 9118 Foresight Point: 9119 Angle Right: 0.0000 Zenith Angle: 93.4157 Slope Distance: 226.772USft Description: CHK9116
370 Note: Foresight Target:My Prism, HR:5.23 (5.23 + 0.0 Offset), Prism Const.:0.0mm
371 Note: HR:5.23 (5.23 + 0.0 Offset)
372 Line of Sight (HI/HR): Height of Instrument: 5.15USft Height of Rod: 5.23USft
373 Note: Date: 09-09-2004 Time: 09:22:57
374 Repeat Directional: Backsight Direct Set: 1 Angle: 0.0000
375 Repeat Directional: Backsight Reverse Set: 1 Angle: 180.0004
376 Repeat Directional: Foresight Reverse Set: 1 Angle: 326.0312
377 Repeat Directional: Zenith Reverse Set: 1 Zenith: 274.2602
378 Multiple Distances: Set: 1 Slope Distance: 163.818USft
379 Repeat Foresight: Occupy Point: 9118 Foresight Point: 9120 Angle Right: 326.0312 Zenith Angle: 274.2602 Slope Distance: 163.818USft Height of Rod: 5.23USft Description: PT23
380 Repeat Directional: Foresight Direct Set: 1 Angle: 146.0309
381 Repeat Directional: Zenith Direct Set: 1 Zenith: 85.3405
382 Multiple Distances: Set: 1 Slope Distance: 163.826USft
383 Repeat Foresight: Occupy Point: 9118 Foresight Point: 9120 Angle Right: 146.0309 Zenith Angle: 85.3405 Slope Distance: 163.826USft Height of Rod: 5.23USft Description: PT23
384 Note: Horizontal Angle Error: 0.0001
385 Note: Zenith Angle Error: 0.0007
386 Note: Slope Distance Error: 0.008
387 Note: Horizontal Angle Error compares to the average: 0.0000
388 Note: Zenith Angle Error compares to the average: 0.0000
389 Note: Slope Distance Error compares to the average: 0.0
390 Side Shot: Occupy Point: 9118 Foresight Point: 9120 Angle Right: 146.03085 Zenith Angle: 85.34015 Slope Distance: 163.822USft Description: PT23
391 Note: Foresight Target:My Prism, HR:5.03 (5.03 + 0.0 Offset), Prism Const.:0.0mm
392 Occupy Pt: Occupy Point: 9120 Northing: 1145666.788597USft Easting: 622036.904268USft Elevation: 237.326526USft Description: PT23
393 Note: HR:5.03 (5.03 + 0.0 Offset)
394 Line of Sight (HI/HR): Height of Instrument: 5.37USft

Height of Rod: 5.03USft
  395 Backsight: Occupy Point: 9120
Backsight Point: 9118 Backsight Azimuth: 331.37101 Backsight Circle: 0.0000
  396 Note: Fixed HR at Backsight:5.03 (5.03 + 0.0 Offset), Prism Const.:0.0mm
  397 Note: BS check 9120 - 9118:ZE94.2941,SD163.832,HD err= -0.003785, VD err= 0.083036
  398 Note: BS Circle check : angular err= 0.0000
  399 Note: BS check 9120 - 9118:ZE94.2940,SD163.832,HD err= -0.003722, VD err= 0.083828
  400 Note: BS Circle check : angular err= 0.0000
  401 Occupy Pt: Occupy Point: 9120
Northing: 1145666.788597USft Easting: 622036.904268USft
Elevation: 237.326526USft Description: PT23
  402 Note: HR:5.03 (5.03 + 0.0 Offset)
  403 Line of Sight (HI/HR): Height of Instrument: 5.28USft
Height of Rod: 5.03USft
  404 Backsight: Occupy Point: 9120
Backsight Point: 9118 Backsight Azimuth: 331.37101 Backsight Circle: 0.0000
  405 Note: Fixed HR at Backsight:5.03 (5.03 + 0.0 Offset), Prism Const.:0.0mm
  406 Note: BS check 9120 - 9118:ZE94.2939,SD163.834,HD err= -0.001666, VD err= -0.005537
  407 Note: BS Circle check : angular err= 0.0000
  408 Side Shot: Occupy Point: 9120
Foresight Point: 9121 Angle Right: 0.0000 Zenith Angle: 94.2939 Slope Distance: 163.834USft Description: CHK9118
  409 Note: Foresight Target:My Prism, HR:5.62 (5.62 + 0.0 Offset), Prism Const.:0.0mm
  410 Note: HR:5.62 (5.62 + 0.0 Offset)
  411 Line of Sight (HI/HR): Height of Instrument: 5.28USft
Height of Rod: 5.62USft
  412 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0001
  413 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0002
  414 Repeat Directional: Foresight Reverse
Set: 1 Angle: 41.3137
  415 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 270.0850
  416 Multiple Distances: Set: 1
Slope Distance: 482.256USft
  417 Repeat Foresight: Occupy Point: 9120
Foresight Point: 9122 Angle Right: 41.3137 Zenith Angle: 270.0850 Slope Distance: 482.256USft Height of Rod: 5.62USft
Description: PT21
  418 Repeat Directional: Foresight Direct
Set: 1 Angle: 221.3133
  419 Repeat Directional: Zenith Direct
Set: 1 Zenith: 89.5105
  420 Multiple Distances: Set: 1
Slope Distance: 482.254USft
  421 Repeat Foresight: Occupy Point: 9120
Foresight Point: 9122 Angle Right: 221.3133 Zenith Angle: 89.5105 Slope Distance: 482.254USft Height of Rod: 5.62USft
Description: PT21
  422 Note: Horizontal Angle Error: 0.0003
  423 Note: Zenith Angle Error: 0.0005
  424 Note: Slope Distance Error: 0.002
  425 Note: Horizontal Angle Error compares to the average: 0.0000
  426 Note: Zenith Angle Error compares to the average: 0.0000
  427 Note: Slope Distance Error compares to the average: 0.0
  428 Side Shot: Occupy Point: 9120

Foresight Point: 9122 Angle Right: 221.31335 Zenith
Angle: 89.51075 Slope Distance: 482.255USft Description: PT21
429 Note: Foresight Target:My Prism, HR:5.5 (5.5 + 0.0
Offset), Prism Const.:0.0mm
430 Occupy Pt: Occupy Point: 21
Northing: 1145197.2227USft Easting: 621927.4809USft
Elevation: 238.183USft Description: #4RS
431 Note: HR:5.5 (5.5 + 0.0 Offset)
432 Line of Sight (HI/HR): Height of Instrument: 5.31USft
Height of Rod: 5.5USft
433 Backsight: Occupy Point: 21
Backsight Point: 23 Backsight Azimuth: 13.075463 Backsight
Circle: 0.0000
434 Note: Fixed HR at Backsight:5.5 (5.5 + 0.0 Offset),
Prism Const.:0.0mm
435 Note: BS check 21 - 23:ZE90.0509,SD482.236,HD err= -
0.021119, VD err= -0.008425
436 Note: BS Circle check : angular err= 0.0000
437 Note: BS check 21 - 23:ZE90.0509,SD482.244,HD err= -
0.013119, VD err= -0.008437
438 Note: BS Circle check : angular err= 0.0000
439 Side Shot: Occupy Point: 21
Foresight Point: 9123 Angle Right: 0.0000 Zenith
Angle: 90.0508 Slope Distance: 482.24USft Description: CHK23
440 Note: Date: 09-09-2004 Time: 10:11:08
441 Note: Foresight Target:My Prism, HR:5.05 (5.05 + 0.0
Offset), Prism Const.:0.0mm
442 Note: HR:5.05 (5.05 + 0.0 Offset)
443 Line of Sight (HI/HR): Height of Instrument: 5.31USft
Height of Rod: 5.05USft
444 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
445 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0000
446 Repeat Directional: Foresight Reverse
Set: 1 Angle: 337.0643
447 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 270.0412
448 Multiple Distances: Set: 1
Slope Distance: 371.606USft
449 Repeat Foresight: Occupy Point: 21
Foresight Point: 9124 Angle Right: 337.0643 Zenith
Angle: 270.0412 Slope Distance: 371.606USft Height of Rod: 5.05USft
Description: NS
450 Repeat Directional: Foresight Direct
Set: 1 Angle: 157.0641
451 Repeat Directional: Zenith Direct
Set: 1 Zenith: 89.5552
452 Multiple Distances: Set: 1
Slope Distance: 371.62USft
453 Repeat Foresight: Occupy Point: 21
Foresight Point: 9124 Angle Right: 157.0641 Zenith
Angle: 89.5552 Slope Distance: 371.62USft Height of Rod: 5.05USft
Description: NS
454 Note: Horizontal Angle Error: 0.0002
455 Note: Zenith Angle Error: 0.0004
456 Note: Slope Distance Error: 0.014
457 Note: Horizontal Angle Error compares to the average:
0.0000
458 Note: Zenith Angle Error compares to the average:
0.0000
459 Note: Slope Distance Error compares to the average: 0.0
460 Side Shot: Occupy Point: 21
Foresight Point: 9124 Angle Right: 157.0642 Zenith
Angle: 89.5550 Slope Distance: 371.613USft Description: NS
461 Note: Foresight Target:My Prism, HR:5.29 (5.29 + 0.0
Offset), Prism Const.:0.0mm

462 Occupy Pt: Occupy Point: 9124
Northing: 1144830.984658USft Easting: 621990.454828USft
Elevation: 238.893408USft Description: NS
463 Note: HR:5.29 (5.29 + 0.0 Offset)
464 Line of Sight (HI/HR): Height of Instrument: 5.18USft
Height of Rod: 5.29USft
465 Backsight: Occupy Point: 9124
Backsight Point: 21 Backsight Azimuth: 350.143663 Backsight
Circle: 0.0000
466 Note: Fixed HR at Backsight:5.29 (5.29 + 0.0 Offset),
Prism Const.:0.0mm
467 Note: BS check 9124 - 21:ZE90.0546,SD371.6,HD err= -
0.01325, VD err= -0.022935
468 Note: BS Circle check : angular err= 0.0000
469 Note: BS check 9124 - 21:ZE90.0543,SD371.61,HD err= -
0.003241, VD err= -0.017546
470 Note: BS Circle check : angular err= 0.0000
471 Side Shot: Occupy Point: 9124
Foresight Point: 9125 Angle Right: 0.0000 Zenith
Angle: 90.0543 Slope Distance: 371.606USft Description: CHK21
472 Note: Foresight Target:My Prism, HR:4.9 (4.9 + 0.0
Offset), Prism Const.:0.0mm
473 Note: HR:4.9 (4.9 + 0.0 Offset)
474 Line of Sight (HI/HR): Height of Instrument: 5.18USft
Height of Rod: 4.9USft
475 Store Point: Point Name: 9126
Northing: 1144772.00677USft Easting: 621738.029225USft
Elevation: 247.509811USft Description: PT9019/B-6009
476 Cut Sheet: Elevation: 247.509811USft
Design Grade: 0.0
477 Design Point/Location: Point Name: 9019
Northing: 1144772.0USft Easting: 621738.0USft
Elevation: 0.0USft Description: B-6009
478 Stakeout Deltas: Delta Northing: -0.00677USft
Delta Easting: -0.029225USft Delta Elevation: -247.509811USft
479 Stakeout: Occupy Point: 9124
Foresight Point: 9126 Angle Right: 266.3620 Zenith
Angle: 88.0929 Slope Distance: 259.358USft Description: PT9019/B-6009
480 Occupy Pt: Occupy Point: 9124
Northing: 1144830.984658USft Easting: 621990.454828USft
Elevation: 238.893408USft Description: NS
481 Backsight: Occupy Point: 9124
Backsight Point: 21 Backsight Azimuth: 350.143663 Backsight
Circle: 0.0000
482 Note: Fixed HR at Backsight:5.29 (5.29 + 0.0 Offset),
Prism Const.:0.0mm
483 Note: BS check 9124 - 21:ZE90.0542,SD371.606,HD err= -
0.007238, VD err= -0.015738
484 Note: BS Circle check : angular err= 0.0000
485 Note: Foresight Target:My Prism, HR:5.29 (5.29 + 0.0
Offset), Prism Const.:0.0mm
486 Note: HR:5.29 (5.29 + 0.0 Offset)
487 Line of Sight (HI/HR): Height of Instrument: 5.18USft
Height of Rod: 5.29USft
488 Note: Date: 09-09-2004 Time: 10:33:11
489 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
490 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0004
491 Repeat Directional: Foresight Reverse
Set: 1 Angle: 6.3016
492 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 274.0525
493 Multiple Distances: Set: 1
Slope Distance: 486.9USft
494 Repeat Foresight: Occupy Point: 9124
Foresight Point: 9127 Angle Right: 6.3016 Zenith

Angle: 274.0525 Slope Distance: 486.9USft Height of Rod: 5.29USft
Description: NS
495 Repeat Directional: Foresight Direct
Set: 1 Angle: 186.3013
496 Repeat Directional: Zenith Direct
Set: 1 Zenith: 85.5442
497 Multiple Distances: Set: 1
Slope Distance: 486.894USft
498 Repeat Foresight: Occupy Point: 9124
Foresight Point: 9127 Angle Right: 186.3013 Zenith
Angle: 85.5442 Slope Distance: 486.894USft Height of Rod: 5.29USft
Description: NS
499 Note: Horizontal Angle Error: 0.0001
500 Note: Zenith Angle Error: 0.0007
501 Note: Slope Distance Error: 0.006
502 Note: Horizontal Angle Error compares to the average:
0.0000
503 Note: Zenith Angle Error compares to the average:
0.0000
504 Note: Slope Distance Error compares to the average: 0.0
505 Side Shot: Occupy Point: 9124
Foresight Point: 9127 Angle Right: 186.30125 Zenith
Angle: 85.54385 Slope Distance: 486.897USft Description: NS
506 Note: Foresight Target:My Prism, HR:5.2 (5.2 + 0.0
Offset), Prism Const.:0.0mm
507 Occupy Pt: Occupy Point: 9127
Northing: 1144346.109793USft Easting: 622018.013656USft
Elevation: 273.50465USft Description: NS
508 Note: HR:5.2 (5.2 + 0.0 Offset)
509 Line of Sight (HI/HR): Height of Instrument: 5.2USft
Height of Rod: 5.2USft
510 Backsight: Occupy Point: 9127
Backsight Point: 9124 Backsight Azimuth: 356.444913 Backsight
Circle: 0.0000
511 Note: Fixed HR at Backsight:5.2 (5.2 + 0.0 Offset),
Prism Const.:0.0mm
512 Note: BS check 9127 - 9124:ZE94.0442,SD486.898,HD err=
0.007638, VD err= -0.017066
513 Note: BS Circle check : angular err= 0.0000
514 Note: BS check 9127 - 9124:ZE94.0441,SD486.898,HD err=
0.007806, VD err= -0.014712
515 Note: BS Circle check : angular err= 0.0000
516 Side Shot: Occupy Point: 9127
Foresight Point: 9128 Angle Right: 0.0000 Zenith
Angle: 94.0441 Slope Distance: 486.902USft Description: CHK9124
517 Note: Foresight Target:My Prism, HR:5.08 (5.08 + 0.0
Offset), Prism Const.:0.0mm
518 Note: HR:5.08 (5.08 + 0.0 Offset)
519 Line of Sight (HI/HR): Height of Instrument: 5.2USft
Height of Rod: 5.08USft
520 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
521 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0004
522 Repeat Directional: Foresight Reverse
Set: 1 Angle: 95.3535
523 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 272.3407
524 Multiple Distances: Set: 1
Slope Distance: 196.292USft
525 Repeat Foresight: Occupy Point: 9127
Foresight Point: 9129 Angle Right: 95.3535 Zenith
Angle: 272.3407 Slope Distance: 196.292USft Height of Rod: 5.08USft
Description: NS
526 Repeat Directional: Foresight Direct
Set: 1 Angle: 275.3533
527 Repeat Directional: Zenith Direct

Set: 1 Zenith: 87.2545
528 Multiple Distances: Set: 1
Slope Distance: 196.288USft
529 Repeat Foresight: Occupy Point: 9127
Foresight Point: 9129 Angle Right: 275.3533 Zenith
Angle: 87.2545 Slope Distance: 196.288USft Height of Rod: 5.08USft
Description: NS
530 Note: Horizontal Angle Error: 0.0002
531 Note: Zenith Angle Error: 0.0008
532 Note: Slope Distance Error: 0.004
533 Note: Horizontal Angle Error compares to the average:
0.0000
534 Note: Zenith Angle Error compares to the average:
0.0000
535 Note: Slope Distance Error compares to the average: 0.0
536 Side Shot: Occupy Point: 9127
Foresight Point: 9129 Angle Right: 275.3532 Zenith
Angle: 87.2549 Slope Distance: 196.29USft Description: NS
537 Note: Foresight Target:My Prism, HR:5.14 (5.14 + 0.0
Offset), Prism Const.:0.0mm
538 Occupy Pt: Occupy Point: 16
Northing: 1143915.652USft Easting: 622548.9921USft
Elevation: 227.7379USft Description: #4RS
539 Note: HR:5.14 (5.14 + 0.0 Offset)
540 Line of Sight (HI/HR): Height of Instrument: 5.23USft
Height of Rod: 5.14USft
541 Backsight: Occupy Point: 16
Backsight Point: 18 Backsight Azimuth: 353.05361 Backsight
Circle: 0.0000
542 Note: Fixed HR at Backsight:5.14 (5.14 + 0.0 Offset),
Prism Const.:0.0mm
543 Note: BS check 16 - 18:ZE90.0943,SD712.426,HD err= -
0.018236, VD err= 0.003656
544 Note: BS Circle check : angular err= 0.0000
545 Note: BS check 16 - 18:ZE90.0943,SD712.434,HD err= -
0.010236, VD err= 0.003634
546 Note: BS Circle check : angular err= 0.0000
547 Note: Date: 09-09-2004 Time: 11:07:01
548 Note: Foresight Target:My Prism, HR:5.06 (5.06 + 0.0
Offset), Prism Const.:0.0mm
549 Occupy Pt: Occupy Point: 9129
Northing: 1144354.1134USft Easting: 621822.084448USft
Elevation: 282.425327USft Description: NS
550 Note: HR:5.06 (5.06 + 0.0 Offset)
551 Line of Sight (HI/HR): Height of Instrument: 5.12USft
Height of Rod: 5.06USft
552 Backsight: Occupy Point: 9129
Backsight Point: 9127 Backsight Azimuth: 92.202113 Backsight
Circle: 0.0000
553 Note: Fixed HR at Backsight:5.06 (5.06 + 0.0 Offset),
Prism Const.:0.0mm
554 Note: BS check 9129 - 9127:ZE92.3742,SD196.302,HD err=
0.002882, VD err= -0.02114
555 Note: BS Circle check : angular err= 0.0000
556 Note: Foresight Target:My Prism, HR:5.05 (5.05 + 0.0
Offset), Prism Const.:0.0mm
557 Occupy Pt: Occupy Point: 9129
Northing: 1144354.1134USft Easting: 621822.084448USft
Elevation: 282.425327USft Description: NS
558 Note: HR:5.05 (5.05 + 0.0 Offset)
559 Line of Sight (HI/HR): Height of Instrument: 5.12USft
Height of Rod: 5.05USft
560 Backsight: Occupy Point: 9129
Backsight Point: 9127 Backsight Azimuth: 92.202113 Backsight
Circle: 0.0000
561 Note: Fixed HR at Backsight:5.05 (5.05 + 0.0 Offset),
Prism Const.:0.0mm

562 Note: BS check 9129 - 9127:ZE92.3742,SD196.3,HD err= 0.000884, VD err= -0.011048
563 Note: BS Circle check : angular err= 0.0000
564 Note: BS check 9129 - 9127:ZE92.3733,SD196.302,HD err= 0.003275, VD err= -0.002584
565 Note: BS Circle check : angular err= 0.0000
566 Side Shot: Occupy Point: 9129
Foresight Point: 9130 Angle Right: 0.0000 Zenith Angle: 92.3736 Slope Distance: 196.302USft Description: CHK9127
567 Note: Date: 09-10-2004 Time: 03:54:51
568 Occupy Pt: Occupy Point: 9129
Northing: 1144354.1134USft Easting: 621822.084448USft
Elevation: 282.425327USft Description: NS
569 Backsight: Occupy Point: 9129
Backsight Point: 9127 Backsight Azimuth: 92.202113 Backsight Circle: 0.0000
570 Note: Fixed HR at Backsight:5.05 (5.05 + 0.0 Offset), Prism Const.:0.0mm
571 Note: BS check 9129 - 9127:ZE92.3738,SD196.3,HD err= 0.001059, VD err= -0.007245
572 Note: BS Circle check : angular err= 0.0000
573 Note: Foresight Target:My Prism, HR:5.06 (5.06 + 0.0 Offset), Prism Const.:0.0mm
574 Note: HR:5.06 (5.06 + 0.0 Offset)
575 Line of Sight (HI/HR): Height of Instrument: 5.12USft
Height of Rod: 5.06USft
576 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
577 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0000
578 Repeat Directional: Foresight Reverse
Set: 1 Angle: 19.2922
579 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 268.0802
580 Multiple Distances: Set: 1
Slope Distance: 417.69USft
581 Repeat Foresight: Occupy Point: 9129
Foresight Point: 9131 Angle Right: 19.2922 Zenith Angle: 268.0802 Slope Distance: 417.69USft Height of Rod: 5.06USft
Description: NS
582 Repeat Directional: Foresight Direct
Set: 1 Angle: 199.2921
583 Repeat Directional: Zenith Direct
Set: 1 Zenith: 91.5201
584 Multiple Distances: Set: 1
Slope Distance: 417.692USft
585 Repeat Foresight: Occupy Point: 9129
Foresight Point: 9131 Angle Right: 199.2921 Zenith Angle: 91.5201 Slope Distance: 417.692USft Height of Rod: 5.06USft
Description: NS
586 Note: Horizontal Angle Error: 0.0001
587 Note: Zenith Angle Error: 0.0003
588 Note: Slope Distance Error: 0.002
589 Note: Horizontal Angle Error compares to the average: 0.0000
590 Note: Zenith Angle Error compares to the average: 0.0000
591 Note: Slope Distance Error compares to the average: 0.0
592 Side Shot: Occupy Point: 9129
Foresight Point: 9131 Angle Right: 199.29215 Zenith Angle: 91.51595 Slope Distance: 417.691USft Description: NS
593 Note: Foresight Target:My Prism, HR:4.83 (4.83 + 0.0 Offset), Prism Const.:0.0mm
594 Occupy Pt: Occupy Point: 9131
Northing: 1144509.340942USft Easting: 621434.547233USft
Elevation: 268.880591USft Description: NS
595 Note: HR:4.83 (4.83 + 0.0 Offset)

596 Line of Sight (HI/HR): Height of Instrument: 5.32USft
Height of Rod: 4.83USft
597 Backsight: Occupy Point: 9131
Backsight Point: 9129 Backsight Azimuth: 111.494263 Backsight
Circle: 0.0000
598 Note: Fixed HR at Backsight:4.83 (4.83 + 0.0 Offset),
Prism Const.:0.0mm
599 Note: BS check 9131 - 9129:ZE88.1228,SD417.672,HD err=
-0.001698, VD err= 0.007988
600 Note: BS Circle check : angular err= 0.0000
601 Side Shot: Occupy Point: 9131
Foresight Point: 9132 Angle Right: 0.0000 Zenith
Angle: 88.1227 Slope Distance: 417.672USft Description: CHK9129
602 Note: Foresight Target:My Prism, HR:8.5 (8.5 + 0.0
Offset), Prism Const.:0.0mm
603 Note: HR:8.5 (8.5 + 0.0 Offset)
604 Line of Sight (HI/HR): Height of Instrument: 5.32USft
Height of Rod: 8.5USft
605 Note: Foresight Target:My Prism, HR:8.45 (8.45 + 0.0
Offset), Prism Const.:0.0mm
606 Note: HR:8.45 (8.45 + 0.0 Offset)
607 Line of Sight (HI/HR): Height of Instrument: 5.32USft
Height of Rod: 8.45USft
608 Store Point: Point Name: 9133
Northing: 1144580.014802USft Easting: 621270.967737USft
Elevation: 243.970225USft Description: PT9022/B-6012
609 Cut Sheet: Elevation: 243.970225USft
Design Grade: 0.0
610 Design Point/Location: Point Name: 9022
Northing: 1144580.0USft Easting: 621271.0USft
Elevation: 0.0USft Description: B-6012
611 Stakeout Deltas: Delta Northing: -0.014802USft
Delta Easting: 0.032263USft Delta Elevation: -243.970225USft
612 Stakeout: Occupy Point: 9131
Foresight Point: 9133 Angle Right: 181.3217 Zenith
Angle: 96.5807 Slope Distance: 179.52USft Description: PT9022/B-6012
613 Note: Date: 09-10-2004 Time: 04:19:37
614 Occupy Pt: Occupy Point: 9131
Northing: 1144509.340942USft Easting: 621434.547233USft
Elevation: 268.880591USft Description: NS
615 Backsight: Occupy Point: 9131
Backsight Point: 9129 Backsight Azimuth: 111.494263 Backsight
Circle: 0.0000
616 Note: Fixed HR at Backsight:4.83 (4.83 + 0.0 Offset),
Prism Const.:0.0mm
617 Note: BS check 9131 - 9129:ZE88.1225,SD417.672,HD err=
-0.001888, VD err= 0.01406
618 Note: BS Circle check : angular err= 0.0000
619 Note: BS check 9131 - 9129:ZE88.1226,SD417.672,HD err=
-0.001825, VD err= 0.012036
620 Note: BS Circle check : angular err= 0.0000
621 Occupy Pt: Occupy Point: 9131
Northing: 1144509.340942USft Easting: 621434.547233USft
Elevation: 268.880591USft Description: NS
622 Backsight: Occupy Point: 9131
Backsight Point: 9129 Backsight Azimuth: 111.494263 Backsight
Circle: 0.0000
623 Note: Fixed HR at Backsight:4.83 (4.83 + 0.0 Offset),
Prism Const.:0.0mm
624 Note: BS check 9131 - 9129:ZE88.1223,SD417.674,HD err=
-0.000016, VD err= 0.018171
625 Note: BS Circle check : angular err= 0.0000
626 Note: BS check 9131 - 9129:ZE88.1227,SD417.672,HD err=
-0.001761, VD err= 0.010012
627 Note: BS Circle check : angular err= 0.0000
628 Occupy Pt: Occupy Point: 9131
Northing: 1144509.340942USft Easting: 621434.547233USft

Elevation: 268.880591USft Description: NS
  629 Backsight: Occupy Point: 9131
Backsight Point: 9129 Backsight Azimuth: 111.494263 Backsight
Circle: 0.0000
  630 Note: Fixed HR at Backsight:4.83 (4.83 + 0.0 Offset),
Prism Const.:0.0mm
  631 Note: BS check 9131 - 9129:ZE88.1228,SD417.674,HD err=
0.000301, VD err= 0.008051
  632 Note: BS Circle check : angular err= 0.0000
  633 Note: Foresight Target:My Prism, HR:5.02 (5.02 + 0.0
Offset), Prism Const.:0.0mm
  634 Note: HR:5.02 (5.02 + 0.0 Offset)
  635 Line of Sight (HI/HR): Height of Instrument: 5.32USft
Height of Rod: 5.02USft
  636 Note: Date: 09-10-2004 Time: 04:37:54
  637 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
  638 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0003
  639 Repeat Directional: Foresight Reverse
Set: 1 Angle: 279.1136
  640 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 270.1731
  641 Multiple Distances: Set: 1
Slope Distance: 435.192USft
  642 Repeat Foresight: Occupy Point: 9131
Foresight Point: 9134 Angle Right: 279.1136 Zenith
Angle: 270.1731 Slope Distance: 435.192USft Height of Rod: 5.02USft
Description: NS
  643 Repeat Directional: Foresight Direct
Set: 1 Angle: 99.1141
  644 Repeat Directional: Zenith Direct
Set: 1 Zenith: 89.4233
  645 Multiple Distances: Set: 1
Slope Distance: 435.196USft
  646 Repeat Foresight: Occupy Point: 9131
Foresight Point: 9134 Angle Right: 99.1141 Zenith
Angle: 89.4233 Slope Distance: 435.196USft Height of Rod: 5.02USft
Description: NS
  647 Note: Horizontal Angle Error: 0.0008
  648 Note: Zenith Angle Error: 0.0004
  649 Note: Slope Distance Error: 0.004
  650 Note: Horizontal Angle Error compares to the average:
0.0000
  651 Note: Zenith Angle Error compares to the average:
0.0000
  652 Note: Slope Distance Error compares to the average: 0.0
  653 Side Shot: Occupy Point: 9131
Foresight Point: 9134 Angle Right: 99.1137 Zenith
Angle: 89.4231 Slope Distance: 435.194USft Description: NS
  654 Note: Foresight Target:My Prism, HR:4.92 (4.92 + 0.0
Offset), Prism Const.:0.0mm
  655 Occupy Pt: Occupy Point: 9134
Northing: 1144136.398256USft Easting: 621210.26466USft
Elevation: 271.393846USft Description: NS
  656 Note: HR:4.92 (4.92 + 0.0 Offset)
  657 Line of Sight (HI/HR): Height of Instrument: 5.21USft
Height of Rod: 4.92USft
  658 Backsight: Occupy Point: 9134
Backsight Point: 9131 Backsight Azimuth: 31.011963 Backsight
Circle: 0.0000
  659 Note: Fixed HR at Backsight:4.92 (4.92 + 0.0 Offset),
Prism Const.:0.0mm
  660 Note: BS check 9134 - 9131:ZE90.2223,SD435.2,HD err=
0.002403, VD err= -0.030333
  661 Note: BS Circle check : angular err= 0.0000
  662 Note: BS check 9134 - 9131:ZE90.2218,SD435.202,HD err=

0.004472, VD err= -0.019797
663 Note: BS Circle check : angular err= 0.0000
664 Note: Foresight Target:My Prism, HR:4.91 (4.91 + 0.0 Offset), Prism Const.:0.0mm
665 Occupy Pt: Occupy Point: 9134
Northing: 1144136.398256USft Easting: 621210.26466USft
Elevation: 271.393846USft Description: NS
666 Note: HR:4.91 (4.91 + 0.0 Offset)
667 Line of Sight (HI/HR): Height of Instrument: 5.21USft
Height of Rod: 4.91USft
668 Backsight: Occupy Point: 9134
Backsight Point: 9131 Backsight Azimuth: 31.011963 Backsight Circle: 0.0000
669 Note: Fixed HR at Backsight:4.91 (4.91 + 0.0 Offset), Prism Const.:0.0mm
670 Note: BS check 9134 - 9131:ZE90.2216,SD435.2,HD err= 0.002499, VD err= -0.005564
671 Note: BS Circle check : angular err= 0.0000
672 Side Shot: Occupy Point: 9134
Foresight Point: 9135 Angle Right: 0.0000 Zenith Angle: 90.2216 Slope Distance: 435.204USft Description: CHK9131
673 Note: Date: 09-10-2004 Time: 04:59:58
674 Store Point: Point Name: 9136
Northing: 1143892.967228USft Easting: 621058.980121USft
Elevation: 263.422471USft Description: PT9020/B-6010
675 Cut Sheet: Elevation: 263.422471USft
Design Grade: 0.0
676 Design Point/Location: Point Name: 9020
Northing: 1143893.0USft Easting: 621059.0USft
Elevation: 0.0USft Description: B-6010
677 Stakeout Deltas: Delta Northing: 0.032772USft
Delta Easting: 0.019879USft Delta Elevation: -263.422471USft
678 Stakeout: Occupy Point: 9134
Foresight Point: 9136 Angle Right: 180.5015 Zenith Angle: 91.3911 Slope Distance: 286.73USft Description: PT9020/B-6010
679 Occupy Pt: Occupy Point: 9134
Northing: 1144136.398256USft Easting: 621210.26466USft
Elevation: 271.393846USft Description: NS
680 Backsight: Occupy Point: 9134
Backsight Point: 9131 Backsight Azimuth: 31.011963 Backsight Circle: 0.0000
681 Note: Fixed HR at Backsight:4.91 (4.91 + 0.0 Offset), Prism Const.:0.0mm
682 Note: BS check 9134 - 9131:ZE90.2219,SD435.2,HD err= 0.002458, VD err= -0.011894
683 Note: BS Circle check : angular err= 0.0000
684 Note: BS check 9134 - 9131:ZE90.2216,SD435.198,HD err= 0.000499, VD err= -0.005551
685 Note: BS Circle check : angular err= 0.0000
686 Note: Foresight Target:My Prism, HR:5.17 (5.17 + 0.0 Offset), Prism Const.:0.0mm
687 Note: HR:5.17 (5.17 + 0.0 Offset)
688 Line of Sight (HI/HR): Height of Instrument: 5.21USft
Height of Rod: 5.17USft
689 Note: Date: 09-10-2004 Time: 05:17:56
690 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
691 Repeat Directional: Backsight Reverse
Set: 1 Angle: 179.5959
692 Repeat Directional: Foresight Reverse
Set: 1 Angle: 46.0425
693 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 269.2301
694 Multiple Distances: Set: 1
Slope Distance: 667.552USft
695 Repeat Foresight: Occupy Point: 9134
Foresight Point: 9137 Angle Right: 46.0425 Zenith

Angle: 269.2301 Slope Distance: 667.552USft Height of Rod: 5.17USft
Description: NS
696 Repeat Directional: Foresight Direct
Set: 1 Angle: 226.0426
697 Repeat Directional: Zenith Direct
Set: 1 Zenith: 90.3707
698 Multiple Distances: Set: 1
Slope Distance: 667.552USft
699 Repeat Foresight: Occupy Point: 9134
Foresight Point: 9137 Angle Right: 226.0426 Zenith
Angle: 90.3707 Slope Distance: 667.552USft Height of Rod: 5.17USft
Description: NS
700 Note: Horizontal Angle Error: 0.0000
701 Note: Zenith Angle Error: 0.0008
702 Note: Slope Distance Error: 0.0
703 Note: Horizontal Angle Error compares to the average:
0.0000
704 Note: Zenith Angle Error compares to the average:
0.0000
705 Note: Slope Distance Error compares to the average: 0.0
706 Side Shot: Occupy Point: 9134
Foresight Point: 9137 Angle Right: 226.0426 Zenith
Angle: 90.3703 Slope Distance: 667.552USft Description: NS
707 Note: Foresight Target:My Prism, HR:4.78 (4.78 + 0.0
Offset), Prism Const.:0.0mm
708 Occupy Pt: Occupy Point: 9137
Northing: 1143987.330517USft Easting: 620559.60905USft
Elevation: 264.239505USft Description: NS
709 Note: HR:4.78 (4.78 + 0.0 Offset)
710 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 4.78USft
711 Backsight: Occupy Point: 9137
Backsight Point: 9134 Backsight Azimuth: 77.054563 Backsight
Circle: 0.0000
712 Note: Fixed HR at Backsight:4.78 (4.78 + 0.0 Offset),
Prism Const.:0.0mm
713 Note: BS check 9137 - 9134:ZE89.2604,SD667.55,HD err=
0.004248, VD err= -0.045191
714 Note: BS Circle check : angular err= 0.0000
715 Note: BS check 9137 - 9134:ZE89.2600,SD667.552,HD err=
0.00612, VD err= -0.032227
716 Note: BS Circle check : angular err= 0.0000
717 Note: Foresight Target:My Prism, HR:4.77 (4.77 + 0.0
Offset), Prism Const.:0.0mm
718 Occupy Pt: Occupy Point: 9137
Northing: 1143987.330517USft Easting: 620559.60905USft
Elevation: 264.239505USft Description: NS
719 Note: HR:4.77 (4.77 + 0.0 Offset)
720 Line of Sight (HI/HR): Height of Instrument: 5.31USft
Height of Rod: 4.77USft
721 Backsight: Occupy Point: 9137
Backsight Point: 9134 Backsight Azimuth: 77.054563 Backsight
Circle: 0.0000
722 Note: Fixed HR at Backsight:4.77 (4.77 + 0.0 Offset),
Prism Const.:0.0mm
723 Note: BS check 9137 - 9134:ZE89.2601,SD667.554,HD err=
0.008152, VD err= -0.015443
724 Note: BS Circle check : angular err= 0.0000
725 Side Shot: Occupy Point: 9137
Foresight Point: 9138 Angle Right: 0.0000 Zenith
Angle: 89.2600 Slope Distance: 667.552USft Description: CHK9134
726 Note: Date: 09-10-2004 Time: 06:01:50
727 Note: Foresight Target:My Prism, HR:5.39 (5.39 + 0.0
Offset), Prism Const.:0.0mm
728 Occupy Pt: Occupy Point: 9137
Northing: 1143987.330517USft Easting: 620559.60905USft
Elevation: 264.239505USft Description: NS

729 Note: HR:5.39 (5.39 + 0.0 Offset)
730 Line of Sight (HI/HR): Height of Instrument: 5.31USft
Height of Rod: 5.39USft
731 Backsight: Occupy Point: 9137
Backsight Point: 9134 Backsight Azimuth: 77.054563 Backsight
Circle: 0.0000
732 Note: Fixed HR at Backsight:4.77 (4.77 + 0.0 Offset),
Prism Const.:0.0mm
733 Note: BS check 9137 - 9134:ZE89.2601,SD667.554,HD err=
0.008152, VD err= -0.015443
734 Note: BS Circle check : angular err= 0.0000
735 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
736 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0000
737 Repeat Directional: Foresight Reverse
Set: 1 Angle: 44.5540
738 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 269.5750
739 Multiple Distances: Set: 1
Slope Distance: 202.678USft
740 Repeat Foresight: Occupy Point: 9137
Foresight Point: 9139 Angle Right: 44.5540 Zenith
Angle: 269.5750 Slope Distance: 202.678USft Height of Rod: 5.39USft
Description: NS
741 Repeat Directional: Foresight Direct
Set: 1 Angle: 224.5543
742 Repeat Directional: Zenith Direct
Set: 1 Zenith: 90.0214
743 Multiple Distances: Set: 1
Slope Distance: 202.672USft
744 Repeat Foresight: Occupy Point: 9137
Foresight Point: 9139 Angle Right: 224.5543 Zenith
Angle: 90.0214 Slope Distance: 202.672USft Height of Rod: 5.39USft
Description: NS
745 Note: Horizontal Angle Error: 0.0003
746 Note: Zenith Angle Error: 0.0004
747 Note: Slope Distance Error: 0.006
748 Note: Horizontal Angle Error compares to the average:
0.0000
749 Note: Zenith Angle Error compares to the average:
0.0000
750 Note: Slope Distance Error compares to the average: 0.0
751 Side Shot: Occupy Point: 9137
Foresight Point: 9139 Angle Right: 224.55415 Zenith
Angle: 90.0212 Slope Distance: 202.675USft Description: NS
752 Note: Foresight Target:My Prism, HR:5.41 (5.41 + 0.0
Offset), Prism Const.:0.0mm
753 Occupy Pt: Occupy Point: 9139
Northing: 1144094.804475USft Easting: 620387.77632USft
Elevation: 264.029802USft Description: NS
754 Note: HR:5.41 (5.41 + 0.0 Offset)
755 Line of Sight (HI/HR): Height of Instrument: 5.26USft
Height of Rod: 5.41USft
756 Backsight: Occupy Point: 9139
Backsight Point: 9137 Backsight Azimuth: 122.012713 Backsight
Circle: 0.0000
757 Note: Fixed HR at Backsight:5.41 (5.41 + 0.0 Offset),
Prism Const.:0.0mm
758 Note: BS check 9139 - 9137:ZE89.5412,SD202.664,HD err=
-0.011247, VD err= -0.017778
759 Note: BS Circle check : angular err= 0.0000
760 Note: BS check 9139 - 9137:ZE89.5410,SD202.662,HD err=
-0.01325, VD err= -0.015816
761 Note: BS Circle check : angular err= 0.0000
762 Note: BS check 9139 - 9137:ZE89.5359,SD202.67,HD err= -
0.005269, VD err= -0.004994

763 Note: BS Circle check : angular err= 0.0000
764 Side Shot: Occupy Point: 9139
Foresight Point: 9140 Angle Right: 0.0000 Zenith
Angle: 89.5400 Slope Distance: 202.67USft Description: CHK9137
765 Note: Date: 09-10-2004 Time: 06:23:05
766 Store Point: Point Name: 9141
Northing: 1144245.38945USft Easting: 620455.164386USft
Elevation: 213.297323USft Description: PT9021/B-6011
767 Cut Sheet: Elevation: 213.297323USft
Design Grade: 0.0
768 Design Point/Location: Point Name: 9021
Northing: 1144244.0USft Easting: 620454.0USft
Elevation: 0.0USft Description: B-6011
769 Stakeout Deltas: Delta Northing: -1.38945USft
Delta Easting: -1.164386USft Delta Elevation: -213.297323USft
770 Stakeout: Occupy Point: 9139
Foresight Point: 9141 Angle Right: 262.0505 Zenith
Angle: 107.0245 Slope Distance: 172.556USft Description: PT9021/B-6011
771 Note: Date: 09-10-2004 Time: 06:38:40
772 Store Point: Point Name: 9142
Northing: 1143718.027091USft Easting: 619874.036274USft
Elevation: 241.900997USft Description: PT9015/B-6005
773 Cut Sheet: Elevation: 241.900997USft
Design Grade: 0.0
774 Design Point/Location: Point Name: 9015
Northing: 1143718.0USft Easting: 619874.0USft
Elevation: 0.0USft Description: B-6005
775 Stakeout Deltas: Delta Northing: -0.027091USft
Delta Easting: -0.036274USft Delta Elevation: -241.900997USft
776 Stakeout: Occupy Point: 9139
Foresight Point: 9142 Angle Right: 111.4310 Zenith
Angle: 91.5833 Slope Distance: 637.474USft Description: PT9015/B-6005
777 Note: Foresight Target:My Prism, HR:5.02 (5.02 + 0.0
Offset), Prism Const.:0.0mm
778 Occupy Pt: Occupy Point: 9139
Northing: 1144094.804475USft Easting: 620387.77632USft
Elevation: 264.029802USft Description: NS
779 Note: HR:5.02 (5.02 + 0.0 Offset)
780 Line of Sight (HI/HR): Height of Instrument: 5.26USft
Height of Rod: 5.02USft
781 Backsight: Occupy Point: 9139
Backsight Point: 9137 Backsight Azimuth: 122.012713 Backsight
Circle: 0.0000
782 Note: Fixed HR at Backsight:5.41 (5.41 + 0.0 Offset),
Prism Const.:0.0mm
783 Note: BS check 9139 - 9137:ZE89.5413,SD202.662,HD err=
-0.013245, VD err= -0.018764
784 Note: BS Circle check : angular err= 0.0000
785 Note: BS check 9139 - 9137:ZE89.5411,SD202.664,HD err=
-0.011249, VD err= -0.016795
786 Note: BS Circle check : angular err= 0.0000
787 Note: Date: 09-10-2004 Time: 06:59:47
788 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
789 Repeat Directional: Backsight Reverse
Set: 1 Angle: 179.5959
790 Repeat Directional: Foresight Reverse
Set: 1 Angle: 311.5736
791 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 268.3728
792 Multiple Distances: Set: 1
Slope Distance: 723.24USft
793 Repeat Foresight: Occupy Point: 9139
Foresight Point: 9143 Angle Right: 311.5736 Zenith
Angle: 268.3728 Slope Distance: 723.24USft Height of Rod: 5.02USft
Description: NS
794 Repeat Directional: Foresight Direct

Set: 1 Angle: 131.5739
795 Repeat Directional: Zenith Direct
Set: 1 Zenith: 91.2241
796 Multiple Distances: Set: 1
Slope Distance: 723.238USft
797 Repeat Foresight: Occupy Point: 9139
Foresight Point: 9143 Angle Right: 131.5739 Zenith
Angle: 91.2241 Slope Distance: 723.238USft Height of Rod: 5.02USft
Description: NS
798 Note: Horizontal Angle Error: 0.0002
799 Note: Zenith Angle Error: 0.0009
800 Note: Slope Distance Error: 0.002
801 Note: Horizontal Angle Error compares to the average:
0.0000
802 Note: Zenith Angle Error compares to the average:
0.0000
803 Note: Slope Distance Error compares to the average: 0.0
804 Side Shot: Occupy Point: 9139
Foresight Point: 9143 Angle Right: 131.5738 Zenith
Angle: 91.22365 Slope Distance: 723.239USft Description: NS
805 Note: Data Collector Serial Number: FS29A13023
806 Note: Activating Total Station: Nikon TOP GUN [Nikon],
COM1, 4800 baud, no parity
807 Note: Foresight Target:My Prism, HR:5.08 (5.08 + 0.0
Offset), Prism Const.:0.0mm
808 Note: Date: 09-10-2004 Time: 08:17:00
809 Note: Foresight Target:My Prism, HR:5.19 (5.19 + 0.0
Offset), Prism Const.:0.0mm
810 Occupy Pt: Occupy Point: 9143
Northing: 1143895.325459USft Easting: 619692.808126USft
Elevation: 246.892193USft Description: NS
811 Note: HR:5.19 (5.19 + 0.0 Offset)
812 Line of Sight (HI/HR): Height of Instrument: 5.29USft
Height of Rod: 5.19USft
813 Backsight: Occupy Point: 9143
Backsight Point: 9139 Backsight Azimuth: 73.590513 Backsight
Circle: 0.0000
814 Note: Fixed HR at Backsight:5.19 (5.19 + 0.0 Offset),
Prism Const.:0.0mm
815 Note: BS check 9143 - 9139:ZE88.3919,SD723.232,HD err=
0.002619, VD err= -0.065035
816 Note: BS Circle check : angular err= 0.0000
817 Note: BS check 9143 - 9139:ZE88.3915,SD723.228,HD err=
-0.001709, VD err= -0.051107
818 Note: BS Circle check : angular err= 0.0000
819 Note: Foresight Target:My Prism, HR:5.2 (5.2 + 0.0
Offset), Prism Const.:0.0mm
820 Occupy Pt: Occupy Point: 9143
Northing: 1143895.325459USft Easting: 619692.808126USft
Elevation: 246.892193USft Description: NS
821 Note: HR:5.2 (5.2 + 0.0 Offset)
822 Line of Sight (HI/HR): Height of Instrument: 5.29USft
Height of Rod: 5.2USft
823 Backsight: Occupy Point: 9143
Backsight Point: 9139 Backsight Azimuth: 73.590513 Backsight
Circle: 0.0000
824 Note: Fixed HR at Backsight:5.2 (5.2 + 0.0 Offset),
Prism Const.:0.0mm
825 Note: BS check 9143 - 9139:ZE88.3916,SD723.224,HD err=
-0.005625, VD err= -0.064707
826 Note: BS Circle check : angular err= 0.0000
827 Note: Foresight Target:My Prism, HR:5.17 (5.17 + 0.0
Offset), Prism Const.:0.0mm
828 Occupy Pt: Occupy Point: 9143
Northing: 1143895.325459USft Easting: 619692.808126USft
Elevation: 246.892193USft Description: NS
829 Note: HR:5.17 (5.17 + 0.0 Offset)

830 Line of Sight (HI/HR): Height of Instrument: 5.29USft
Height of Rod: 5.17USft
831 Backsight: Occupy Point: 9143
Backsight Point: 9139 Backsight Azimuth: 73.590513 Backsight
Circle: 0.0000
832 Note: Fixed HR at Backsight:5.17 (5.17 + 0.0 Offset),
Prism Const.:0.0mm
833 Note: BS check 9143 - 9139:ZE88.3915,SD723.224,HD err=
-0.005708, VD err= -0.031201
834 Note: BS Circle check : angular err= 0.0000
835 Occupy Pt: Occupy Point: 9143
Northing: 1143895.325459USft Easting: 619692.808126USft
Elevation: 246.892193USft Description: NS
836 Note: HR:5.17 (5.17 + 0.0 Offset)
837 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 5.17USft
838 Backsight: Occupy Point: 9143
Backsight Point: 9139 Backsight Azimuth: 73.590513 Backsight
Circle: 0.0000
839 Note: Fixed HR at Backsight:5.17 (5.17 + 0.0 Offset),
Prism Const.:0.0mm
840 Note: BS check 9143 - 9139:ZE88.3914,SD723.226,HD err=
-0.003791, VD err= -0.017649
841 Note: BS Circle check : angular err= 0.0000
842 Side Shot: Occupy Point: 9143
Foresight Point: 9144 Angle Right: 0.0000 Zenith
Angle: 88.3916 Slope Distance: 723.222USft Description: CHK9139
843 Note: Foresight Target:My Prism, HR:4.9 (4.9 + 0.0
Offset), Prism Const.:0.0mm
844 Note: HR:4.9 (4.9 + 0.0 Offset)
845 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 4.9USft
846 Store Point: Point Name: 9145
Northing: 1144135.013262USft Easting: 619625.995216USft
Elevation: 247.704762USft Description: PT9012/B-6002
847 Cut Sheet: Elevation: 247.704762USft
Design Grade: 0.0
848 Design Point/Location: Point Name: 9012
Northing: 1144135.0USft Easting: 619626.0USft
Elevation: 0.0USft Description: B-6002
849 Stakeout Deltas: Delta Northing: -0.013262USft
Delta Easting: 0.004784USft Delta Elevation: -247.704762USft
850 Stakeout: Occupy Point: 9143
Foresight Point: 9145 Angle Right: 270.2622 Zenith
Angle: 89.5418 Slope Distance: 248.826USft Description: PT9012/B-6002
851 Note: Date: 09-10-2004 Time: 08:43:01
852 Occupy Pt: Occupy Point: 9143
Northing: 1143895.325459USft Easting: 619692.808126USft
Elevation: 246.892193USft Description: NS
853 Backsight: Occupy Point: 9143
Backsight Point: 9139 Backsight Azimuth: 73.590513 Backsight
Circle: 0.0000
854 Note: Fixed HR at Backsight:5.17 (5.17 + 0.0 Offset),
Prism Const.:0.0mm
855 Note: BS check 9143 - 9139:ZE88.3914,SD723.234,HD err=
0.004207, VD err= -0.017461
856 Note: BS Circle check : angular err= 0.0000
857 Note: Date: 09-10-2004 Time: 09:06:21
858 Store Point: Point Name: 9146
Northing: 1143711.990177USft Easting: 619468.988633USft
Elevation: 230.508684USft Description: PT9014/B-6004
859 Cut Sheet: Elevation: 230.508684USft
Design Grade: 0.0
860 Design Point/Location: Point Name: 9014
Northing: 1143712.0USft Easting: 619469.0USft
Elevation: 0.0USft Description: B-6004
861 Stakeout Deltas: Delta Northing: 0.009823USft

Delta Easting: 0.011367USft Delta Elevation: -230.508684USft
862 Stakeout: Occupy Point: 9143
Foresight Point: 9146 Angle Right: 156.4137 Zenith
Angle: 93.1912 Slope Distance: 289.808USft Description: PT9014/B-6004
863 Note: Data Collector Serial Number: FS29A13023
864 Note: Activating Total Station: Nikon TOP GUN [Nikon],
COM1, 4800 baud, no parity
865 Note: Foresight Target:My Prism, HR:5.08 (5.08 + 0.0
Offset), Prism Const.:0.0mm
866 Note: Date: 09-10-2004 Time: 09:39:31
867 Note: Foresight Target:My Prism, HR:5.17 (5.17 + 0.0
Offset), Prism Const.:0.0mm
868 Occupy Pt: Occupy Point: 9143
Northing: 1143895.325459USft Easting: 619692.808126USft
Elevation: 246.892193USft Description: NS
869 Note: HR:5.17 (5.17 + 0.0 Offset)
870 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 5.17USft
871 Backsight: Occupy Point: 9143
Backsight Point: 9139 Backsight Azimuth: 73.590513 Backsight
Circle: 0.0000
872 Note: Fixed HR at Backsight:5.17 (5.17 + 0.0 Offset),
Prism Const.:0.0mm
873 Note: BS check 9143 - 9139:ZE88.3915,SD723.222,HD err=
-0.007707, VD err= -0.021248
874 Note: BS Circle check : angular err= 0.0000
875 Note: Foresight Target:My Prism, HR:5.16 (5.16 + 0.0
Offset), Prism Const.:0.0mm
876 Occupy Pt: Occupy Point: 9143
Northing: 1143895.325459USft Easting: 619692.808126USft
Elevation: 246.892193USft Description: NS
877 Note: HR:5.16 (5.16 + 0.0 Offset)
878 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 5.16USft
879 Backsight: Occupy Point: 9143
Backsight Point: 9139 Backsight Azimuth: 73.590513 Backsight
Circle: 0.0000
880 Note: Fixed HR at Backsight:5.16 (5.16 + 0.0 Offset),
Prism Const.:0.0mm
881 Note: BS check 9143 - 9139:ZE88.3917,SD723.234,HD err=
0.004454, VD err= -0.017977
882 Note: BS Circle check : angular err= 0.0000
883 Note: Foresight Target:My Prism, HR:4.95 (4.95 + 0.0
Offset), Prism Const.:0.0mm
884 Note: HR:4.95 (4.95 + 0.0 Offset)
885 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 4.95USft
886 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
887 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0000
888 Repeat Directional: Foresight Reverse
Set: 1 Angle: 325.0719
889 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 268.4146
890 Multiple Distances: Set: 1
Slope Distance: 602.564USft
891 Repeat Foresight: Occupy Point: 9143
Foresight Point: 9147 Angle Right: 325.0719 Zenith
Angle: 268.4146 Slope Distance: 602.564USft Height of Rod: 4.95USft
Description: NS
892 Repeat Directional: Foresight Direct
Set: 1 Angle: 145.0716
893 Repeat Directional: Zenith Direct
Set: 1 Zenith: 91.1824
894 Multiple Distances: Set: 1
Slope Distance: 602.556USft

895 Repeat Foresight: Occupy Point: 9143
Foresight Point: 9147 Angle Right: 145.0716 Zenith
Angle: 91.1824 Slope Distance: 602.556USft Height of Rod: 4.95USft
Description: NS
896 Note: Horizontal Angle Error: 0.0003
897 Note: Zenith Angle Error: 0.0010
898 Note: Slope Distance Error: 0.008
899 Note: Horizontal Angle Error compares to the average:
0.0000
900 Note: Zenith Angle Error compares to the average:
0.0000
901 Note: Slope Distance Error compares to the average: 0.0
902 Side Shot: Occupy Point: 9143
Foresight Point: 9147 Angle Right: 145.07175 Zenith
Angle: 91.1819 Slope Distance: 602.56USft Description: NS
903 Occupy Pt: Occupy Point: 9143
Northing: 1143895.325459USft Easting: 619692.808126USft
Elevation: 246.892193USft Description: NS
904 Backsight: Occupy Point: 9143
Backsight Point: 9139 Backsight Azimuth: 73.590513 Backsight
Circle: 0.0000
905 Note: Fixed HR at Backsight:5.16 (5.16 + 0.0 Offset),
Prism Const.:0.0mm
906 Note: BS check 9143 - 9139:ZE88.3916,SD723.226,HD err=
-0.003626, VD err= -0.01466
907 Note: BS Circle check : angular err= 0.0000
908 Occupy Pt: Occupy Point: 9143
Northing: 1143895.325459USft Easting: 619692.808126USft
Elevation: 246.892193USft Description: NS
909 Backsight: Occupy Point: 9143
Backsight Point: 9139 Backsight Azimuth: 73.590513 Backsight
Circle: 0.0000
910 Note: Fixed HR at Backsight:5.16 (5.16 + 0.0 Offset),
Prism Const.:0.0mm
911 Note: BS check 9143 - 9139:ZE88.3912,SD723.238,HD err=
0.008041, VD err= -0.000356
912 Note: BS Circle check : angular err= 0.0000
913 Note: Date: 09-10-2004 Time: 09:59:35
914 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
915 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0001
916 Repeat Directional: Foresight Reverse
Set: 1 Angle: 22.2734
917 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 266.2520
918 Multiple Distances: Set: 1
Slope Distance: 270.7USft
919 Repeat Foresight: Occupy Point: 9143
Foresight Point: 9148 Angle Right: 22.2734 Zenith
Angle: 266.2520 Slope Distance: 270.7USft Height of Rod: 4.95USft
Description: NS
920 Repeat Directional: Foresight Direct
Set: 1 Angle: 202.2732
921 Repeat Directional: Zenith Direct
Set: 1 Zenith: 93.3435
922 Multiple Distances: Set: 1
Slope Distance: 270.698USft
923 Repeat Foresight: Occupy Point: 9143
Foresight Point: 9148 Angle Right: 202.2732 Zenith
Angle: 93.3435 Slope Distance: 270.698USft Height of Rod: 4.95USft
Description: NS
924 Note: Horizontal Angle Error: 0.0001
925 Note: Zenith Angle Error: 0.0005
926 Note: Slope Distance Error: 0.002
927 Note: Horizontal Angle Error compares to the average:
0.0000

928 Note: Zenith Angle Error compares to the average: 0.0000
929 Note: Slope Distance Error compares to the average: 0.0
930 Side Shot: Occupy Point: 9143
Foresight Point: 9148 Angle Right: 202.27325 Zenith Angle: 93.34375 Slope Distance: 270.699USft Description: NS
931 Note: Foresight Target:My Prism, HR:5.11 (5.11 + 0.0 Offset), Prism Const.:0.0mm
932 Occupy Pt: Occupy Point: 9148
Northing: 1143925.646371USft Easting: 619424.343336USft
Elevation: 230.352922USft Description: NS
933 Note: HR:5.11 (5.11 + 0.0 Offset)
934 Line of Sight (HI/HR): Height of Instrument: 5.11USft
Height of Rod: 5.11USft
935 Backsight: Occupy Point: 9148
Backsight Point: 9143 Backsight Azimuth: 96.263763 Backsight Circle: 0.0000
936 Note: Fixed HR at Backsight:5.11 (5.11 + 0.0 Offset), Prism Const.:0.0mm
937 Note: BS check 9148 - 9143:ZE86.2954,SD270.688,HD err= 0.011017, VD err= -0.006305
938 Note: BS Circle check : angular err= 0.0000
939 Side Shot: Occupy Point: 9148
Foresight Point: 9149 Angle Right: 0.0000 Zenith Angle: 86.2953 Slope Distance: 270.686USft Description: CHK9143
940 Note: Foresight Target:My Prism, HR:4.9 (4.9 + 0.0 Offset), Prism Const.:0.0mm
941 Note: HR:4.9 (4.9 + 0.0 Offset)
942 Line of Sight (HI/HR): Height of Instrument: 5.11USft
Height of Rod: 4.9USft
943 Store Point: Point Name: 9150
Northing: 1143924.951423USft Easting: 619422.899131USft
Elevation: 229.816502USft Description: PT9013/B-6003
944 Cut Sheet: Elevation: 229.816502USft
Design Grade: 0.0
945 Design Point/Location: Point Name: 9013
Northing: 1143925.0USft Easting: 619423.0USft
Elevation: 0.0USft Description: B-6003
946 Stakeout Deltas: Delta Northing: 0.048577USft
Delta Easting: 0.100869USft Delta Elevation: -229.816502USft
947 Stakeout: Occupy Point: 9148
Foresight Point: 9150 Angle Right: 147.5134 Zenith Angle: 114.5821 Slope Distance: 1.768USft Description: PT9013/B-6003
948 Store Point: Point Name: 9151
Northing: 1144089.080827USft Easting: 619279.916229USft
Elevation: 253.611825USft Description: PT9011/B-6001
949 Cut Sheet: Elevation: 253.611825USft
Design Grade: 0.0
950 Design Point/Location: Point Name: 9011
Northing: 1144089.1USft Easting: 619279.9USft
Elevation: 0.0USft Description: B-6001
951 Stakeout Deltas: Delta Northing: 0.019173USft
Delta Easting: -0.016229USft Delta Elevation: -253.611825USft
952 Stakeout: Occupy Point: 9148
Foresight Point: 9151 Angle Right: 222.0521 Zenith Angle: 83.5803 Slope Distance: 219.32USft Description: PT9011/B-6001
953 Note: Foresight Target:My Prism, HR:5.11 (5.11 + 0.0 Offset), Prism Const.:0.0mm
954 Note: HR:5.11 (5.11 + 0.0 Offset)
955 Line of Sight (HI/HR): Height of Instrument: 5.11USft
Height of Rod: 5.11USft
956 Side Shot: Occupy Point: 9148
Foresight Point: 9152 Angle Right: 359.5957 Zenith Angle: 86.2954 Slope Distance: 270.698USft Description: CHK9143
957 Note: Date: 09-10-2004 Time: 10:23:07
958 Deleted Point: Point Name: 9152
959 Note: Foresight Target:My Prism, HR:4.9 (4.9 + 0.0

Offset), Prism Const.:0.0mm
960 Note: HR:4.9 (4.9 + 0.0 Offset)
961 Line of Sight (HI/HR): Height of Instrument: 5.11USft
Height of Rod: 4.9USft
962 Off Center Shot: Angle Right: 222.2338
Zenith Angle: 83.5536 Slope Distance: 223.49USft
963 Off Center Shot: Left/Right Offset: 1.0USft
Description: Left / Right Offset
964 Side Shot: Occupy Point: 9148
Foresight Point: 9152 Angle Right: 222.390613 Zenith
Angle: 83.553622 Slope Distance: 223.492237USft Description: B-1193
965 Note: Foresight Target:My Prism, HR:5.11 (5.11 + 0.0
Offset), Prism Const.:0.0mm
966 Note: HR:5.11 (5.11 + 0.0 Offset)
967 Line of Sight (HI/HR): Height of Instrument: 5.11USft
Height of Rod: 5.11USft
968 Side Shot: Occupy Point: 9148
Foresight Point: 9153 Angle Right: 359.5957 Zenith
Angle: 86.2957 Slope Distance: 270.684USft Description: CHK9143
969 Note: Date: 09-10-2004 Time: 11:00:36
970 Note: Date: 09-10-2004 Time: 11:15:39
971 Note: Data Collector Serial Number: FS29A13023
972 Note: Activating Total Station: Nikon TOP GUN [Nikon],
COM1, 4800 baud, no parity
973 Note: Foresight Target:My Prism, HR:5.08 (5.08 + 0.0
Offset), Prism Const.:0.0mm
974 Note: Date: 09-11-2004 Time: 03:33:20
975 Note: Foresight Target:My Prism, HR:5.42 (5.42 + 0.0
Offset), Prism Const.:0.0mm
976 Occupy Pt: Occupy Point: 9147
Northing: 1143427.873958USft Easting: 619312.835435USft
Elevation: 233.516223USft Description: NS
977 Note: HR:5.42 (5.42 + 0.0 Offset)
978 Line of Sight (HI/HR): Height of Instrument: 5.27USft
Height of Rod: 5.42USft
979 Backsight: Occupy Point: 9147
Backsight Point: 9143 Backsight Azimuth: 39.062263 Backsight
Circle: 0.0000
980 Note: Fixed HR at Backsight:5.42 (5.42 + 0.0 Offset),
Prism Const.:0.0mm
981 Note: BS check 9147 - 9143:ZE88.4306,SD602.562,HD err=
0.007605, VD err= -0.048202
982 Note: BS Circle check : angular err= 0.0000
983 Occupy Pt: Occupy Point: 9147
Northing: 1143427.873958USft Easting: 619312.835435USft
Elevation: 233.516223USft Description: NS
984 Note: HR:5.42 (5.42 + 0.0 Offset)
985 Line of Sight (HI/HR): Height of Instrument: 5.26USft
Height of Rod: 5.42USft
986 Backsight: Occupy Point: 9147
Backsight Point: 9143 Backsight Azimuth: 39.062263 Backsight
Circle: 0.0000
987 Note: Fixed HR at Backsight:5.42 (5.42 + 0.0 Offset),
Prism Const.:0.0mm
988 Note: BS check 9147 - 9143:ZE88.4305,SD602.562,HD err=
0.007539, VD err= -0.055281
989 Note: BS Circle check : angular err= 0.0000
990 Occupy Pt: Occupy Point: 9147
Northing: 1143427.873958USft Easting: 619312.835435USft
Elevation: 233.516223USft Description: NS
991 Note: HR:5.42 (5.42 + 0.0 Offset)
992 Line of Sight (HI/HR): Height of Instrument: 5.27USft
Height of Rod: 5.42USft
993 Backsight: Occupy Point: 9147
Backsight Point: 9143 Backsight Azimuth: 39.062263 Backsight
Circle: 0.0000
994 Note: Fixed HR at Backsight:5.42 (5.42 + 0.0 Offset),

Prism Const.:0.0mm
995 Note: BS check 9147 - 9143:ZE88.4301,SD602.566,HD err= 0.011277, VD err= -0.033509
996 Note: BS Circle check : angular err= 0.0000
997 Note: Foresight Target:My Prism, HR:5.4 (5.4 + 0.0 Offset), Prism Const.:0.0mm
998 Occupy Pt: Occupy Point: 9147
Northing: 1143427.873958USft Easting: 619312.835435USft
Elevation: 233.516223USft Description: NS
999 Note: HR:5.4 (5.4 + 0.0 Offset)
1000 Line of Sight (HI/HR): Height of Instrument: 5.27USft
Height of Rod: 5.4USft
1001 Backsight: Occupy Point: 9147
Backsight Point: 9143 Backsight Azimuth: 39.062263 Backsight Circle: 0.0000
1002 Note: Fixed HR at Backsight:5.4 (5.4 + 0.0 Offset), Prism Const.:0.0mm
1003 Note: BS check 9147 - 9143:ZE88.4302,SD602.56,HD err= 0.005344, VD err= -0.016564
1004 Note: BS Circle check : angular err= 0.0000
1005 Side Shot: Occupy Point: 9147
Foresight Point: 9154 Angle Right: 0.0000 Zenith Angle: 88.4301 Slope Distance: 602.564USft Description: CHK9143
1006 Note: Date: 09-11-2004 Time: 03:49:36
1007 Occupy Pt: Occupy Point: 9147
Northing: 1143427.873958USft Easting: 619312.835435USft
Elevation: 233.516223USft Description: NS
1008 Backsight: Occupy Point: 9147
Backsight Point: 9143 Backsight Azimuth: 39.062263 Backsight Circle: 0.0000
1009 Note: Fixed HR at Backsight:5.4 (5.4 + 0.0 Offset), Prism Const.:0.0mm
1010 Note: BS check 9147 - 9143:ZE88.4258,SD602.562,HD err= 0.007082, VD err= -0.004837
1011 Note: BS Circle check : angular err= 0.0000
1012 Note: Foresight Target:My Prism, HR:4.84 (4.84 + 0.0 Offset), Prism Const.:0.0mm
1013 Occupy Pt: Occupy Point: 9147
Northing: 1143427.873958USft Easting: 619312.835435USft
Elevation: 233.516223USft Description: NS
1014 Note: HR:4.84 (4.84 + 0.0 Offset)
1015 Line of Sight (HI/HR): Height of Instrument: 5.27USft
Height of Rod: 4.84USft
1016 Backsight: Occupy Point: 9147
Backsight Point: 9143 Backsight Azimuth: 39.062263 Backsight Circle: 0.0000
1017 Note: Fixed HR at Backsight:5.4 (5.4 + 0.0 Offset), Prism Const.:0.0mm
1018 Note: BS check 9147 - 9143:ZE88.4301,SD602.56,HD err= 0.005278, VD err= -0.013644
1019 Note: BS Circle check : angular err= 0.0000
1020 Note: Date: 09-11-2004 Time: 04:24:30
1021 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
1022 Repeat Directional: Backsight Reverse
Set: 1 Angle: 179.5958
1023 Repeat Directional: Foresight Reverse
Set: 1 Angle: 43.4142
1024 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 267.5235
1025 Multiple Distances: Set: 1
Slope Distance: 324.224USft
1026 Repeat Foresight: Occupy Point: 9147
Foresight Point: 9155 Angle Right: 43.4142 Zenith Angle: 267.5235 Slope Distance: 324.224USft Height of Rod: 4.84USft
Description: NS
1027 Repeat Directional: Foresight Direct

Set: 1 Angle: 223.4146
1028 Repeat Directional: Zenith Direct
Set: 1 Zenith: 92.0736
1029 Multiple Distances: Set: 1
Slope Distance: 324.222USft
1030 Repeat Foresight: Occupy Point: 9147
Foresight Point: 9155 Angle Right: 223.4146 Zenith
Angle: 92.0736 Slope Distance: 324.222USft Height of Rod: 4.84USft
Description: NS
1031 Note: Horizontal Angle Error: 0.0002
1032 Note: Zenith Angle Error: 0.0011
1033 Note: Slope Distance Error: 0.002
1034 Note: Horizontal Angle Error compares to the average:
0.0000
1035 Note: Zenith Angle Error compares to the average:
0.0000
1036 Note: Slope Distance Error compares to the average: 0.0
1037 Side Shot: Occupy Point: 9147
Foresight Point: 9155 Angle Right: 223.4145 Zenith
Angle: 92.07305 Slope Distance: 324.223USft Description: NS
1038 Store Point: Point Name: 9156
Northing: 1143166.152589USft Easting: 619317.900562USft
Elevation: 221.544209USft Description: PT9025/B-6015
1039 Cut Sheet: Elevation: 221.544209USft
Design Grade: 0.0
1040 Design Point/Location: Point Name: 9025
Northing: 1143166.2USft Easting: 619317.9USft
Elevation: 0.0USft Description: B-6015
1041 Stakeout Deltas: Delta Northing: 0.047411USft
Delta Easting: -0.000562USft Delta Elevation: -221.544209USft
1042 Stakeout: Occupy Point: 9147
Foresight Point: 9156 Angle Right: 139.4706 Zenith
Angle: 92.4245 Slope Distance: 262.064USft Description: PT9025/B-6015
1043 Note: Foresight Target:My Prism, HR:4.9 (4.9 + 0.0
Offset), Prism Const.:0.0mm
1044 Note: HR:4.9 (4.9 + 0.0 Offset)
1045 Line of Sight (HI/HR): Height of Instrument: 5.27USft
Height of Rod: 4.9USft
1046 Occupy Pt: Occupy Point: 9147
Northing: 1143427.873958USft Easting: 619312.835435USft
Elevation: 233.516223USft Description: NS
1047 Backsight: Occupy Point: 9147
Backsight Point: 9143 Backsight Azimuth: 39.062263 Backsight
Circle: 0.0000
1048 Note: Fixed HR at Backsight:5.4 (5.4 + 0.0 Offset),
Prism Const.:0.0mm
1049 Note: BS check 9147 - 9143:ZE88.4259,SD602.562,HD err=
0.007147, VD err= -0.007758
1050 Note: BS Circle check : angular err= 0.0000
1051 Note: Date: 09-11-2004 Time: 04:43:54
1052 Note: Foresight Target:My Prism, HR:5.16 (5.16 + 0.0
Offset), Prism Const.:0.0mm
1053 Note: HR:5.16 (5.16 + 0.0 Offset)
1054 Line of Sight (HI/HR): Height of Instrument: 5.27USft
Height of Rod: 5.16USft
1055 Occupy Pt: Occupy Point: 9147
Northing: 1143427.873958USft Easting: 619312.835435USft
Elevation: 233.516223USft Description: NS
1056 Backsight: Occupy Point: 9147
Backsight Point: 9143 Backsight Azimuth: 39.062263 Backsight
Circle: 0.0000
1057 Note: Fixed HR at Backsight:5.4 (5.4 + 0.0 Offset),
Prism Const.:0.0mm
1058 Note: BS check 9147 - 9143:ZE88.4303,SD602.566,HD err=
0.011408, VD err= -0.019351
1059 Note: BS Circle check : angular err= 0.0000
1060 Note: BS check 9147 - 9143:ZE88.4304,SD602.56,HD err=

0.005474, VD err= -0.022406
1061 Note: BS Circle check : angular err= 0.0000
1062 Note: BS check 9147 - 9143:ZE88.4303,SD602.564,HD err= 0.009408, VD err= -0.019395
1063 Note: BS Circle check : angular err= 0.0000
1064 Note: BS check 9147 - 9143:ZE88.4300,SD602.562,HD err= 0.007212, VD err= -0.010678
1065 Note: BS Circle check : angular err= 0.0000
1066 Note: RD,BD 1:0.0000
1067 Note: RD,BV 1:180.0000
1068 Note: RD,FV 1:180.0000
1069 Note: RD,ZV 1:
1070 Note: MD,SD 1:
1071 Note: RF,OP9147,FP,AR180.0000,ZE,SD,HR5.16,--
1072 Note: RD,FD 1:0.0000
1073 Note: RD,ZD 1:
1074 Note: MD,SD 1:
1075 Note: RF,OP9147,FP,AR0.0000,ZE,SD,HR5.16,--
1076 Note: Horizontal Angle Error: 0.0000
1077 Note: Zenith Angle Error: 0.0000
1078 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
1079 Repeat Directional: Backsight Reverse
Set: 1 Angle: 179.5956
1080 Repeat Directional: Foresight Reverse
Set: 1 Angle: 278.4204
1081 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 271.5334
1082 Multiple Distances: Set: 1
Slope Distance: 409.908USft
1083 Repeat Foresight: Occupy Point: 9147
Foresight Point: 9157 Angle Right: 278.4204 Zenith Angle: 271.5334 Slope Distance: 409.908USft Height of Rod: 5.16USft
Description: NS
1084 Repeat Directional: Foresight Direct
Set: 1 Angle: 98.4206
1085 Repeat Directional: Zenith Direct
Set: 1 Zenith: 88.0637
1086 Multiple Distances: Set: 1
Slope Distance: 409.91USft
1087 Repeat Foresight: Occupy Point: 9147
Foresight Point: 9157 Angle Right: 98.4206 Zenith Angle: 88.0637 Slope Distance: 409.91USft Height of Rod: 5.16USft
Description: NS
1088 Note: Horizontal Angle Error: 0.0002
1089 Note: Zenith Angle Error: 0.0011
1090 Note: Slope Distance Error: 0.002
1091 Note: Horizontal Angle Error compares to the average: 0.0000
1092 Note: Zenith Angle Error compares to the average: 0.0000
1093 Note: Slope Distance Error compares to the average: 0.0
1094 Side Shot: Occupy Point: 9147
Foresight Point: 9157 Angle Right: 98.4207 Zenith Angle: 88.06315 Slope Distance: 409.909USft Description: NS
1095 Note: Foresight Target:My Prism, HR:5.14 (5.14 + 0.0 Offset), Prism Const.:0.0mm
1096 Occupy Pt: Occupy Point: 9157
Northing: 1143124.337374USft Easting: 619587.986162USft
Elevation: 247.154264USft Description: NS
1097 Note: HR:5.14 (5.14 + 0.0 Offset)
1098 Line of Sight (HI/HR): Height of Instrument: 5.29USft
Height of Rod: 5.14USft
1099 Backsight: Occupy Point: 9157
Backsight Point: 9147 Backsight Azimuth: 317.482963 Backsight Circle: 0.0000
1100 Note: Fixed HR at Backsight:5.14 (5.14 + 0.0 Offset),

Prism Const.:0.0mm
1101 Note: BS check 9157 - 9147:ZE91.5607,SD409.928,HD err= 0.008473, VD err= -0.055452
1102 Note: BS Circle check : angular err= 0.0000
1103 Note: BS check 9157 - 9147:ZE91.5558,SD409.924,HD err= 0.005079, VD err= -0.037441
1104 Note: BS Circle check : angular err= 0.0000
1105 Occupy Pt: Occupy Point: 9157
Northing: 1143124.337374USft Easting: 619587.986162USft
Elevation: 247.154264USft Description: NS
1106 Note: HR:5.14 (5.14 + 0.0 Offset)
1107 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 5.14USft
1108 Backsight: Occupy Point: 9157
Backsight Point: 9147 Backsight Azimuth: 317.482963 Backsight Circle: 0.0000
1109 Note: Fixed HR at Backsight:5.14 (5.14 + 0.0 Offset), Prism Const.:0.0mm
1110 Note: BS check 9157 - 9147:ZE91.5558,SD409.92,HD err= 0.001081, VD err= -0.027306
1111 Note: BS Circle check : angular err= 0.0000
1112 Note: Foresight Target:My Prism, HR:5.13 (5.13 + 0.0 Offset), Prism Const.:0.0mm
1113 Occupy Pt: Occupy Point: 9157
Northing: 1143124.337374USft Easting: 619587.986162USft
Elevation: 247.154264USft Description: NS
1114 Note: HR:5.13 (5.13 + 0.0 Offset)
1115 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 5.13USft
1116 Backsight: Occupy Point: 9157
Backsight Point: 9147 Backsight Azimuth: 317.482963 Backsight Circle: 0.0000
1117 Note: Fixed HR at Backsight:5.13 (5.13 + 0.0 Offset), Prism Const.:0.0mm
1118 Note: BS check 9157 - 9147:ZE91.5600,SD409.922,HD err= 0.002946, VD err= -0.021346
1119 Note: BS Circle check : angular err= 0.0000
1120 Note: BS check 9157 - 9147:ZE91.5559,SD409.922,HD err= 0.003013, VD err= -0.01936
1121 Note: BS Circle check : angular err= 0.0000
1122 Note: BS check 9157 - 9147:ZE91.5559,SD409.926,HD err= 0.007011, VD err= -0.019495
1123 Note: BS Circle check : angular err= 0.0000
1124 Side Shot: Occupy Point: 9157
Foresight Point: 9158 Angle Right: 0.0000 Zenith Angle: 91.5559 Slope Distance: 409.924USft Description: CHK9147
1125 Note: Date: 09-11-2004 Time: 05:11:44
1126 Note: Foresight Target:My Prism, HR:5.39 (5.39 + 0.0 Offset), Prism Const.:0.0mm
1127 Occupy Pt: Occupy Point: 9157
Northing: 1143124.337374USft Easting: 619587.986162USft
Elevation: 247.154264USft Description: NS
1128 Note: HR:5.39 (5.39 + 0.0 Offset)
1129 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 5.39USft
1130 Backsight: Occupy Point: 9157
Backsight Point: 9147 Backsight Azimuth: 317.482963 Backsight Circle: 0.0000
1131 Note: Fixed HR at Backsight:5.13 (5.13 + 0.0 Offset), Prism Const.:0.0mm
1132 Note: BS check 9157 - 9147:ZE91.5558,SD409.928,HD err= 0.009077, VD err= -0.017576
1133 Note: BS Circle check : angular err= 0.0000
1134 Note: Foresight Target:My Prism, HR:5.02 (5.02 + 0.0 Offset), Prism Const.:0.0mm
1135 Note: HR:5.02 (5.02 + 0.0 Offset)
1136 Line of Sight (HI/HR): Height of Instrument: 5.3USft

Height of Rod: 5.02USft
1137 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0001
1138 Repeat Directional: Backsight Reverse
Set: 1 Angle: 179.5956
1139 Repeat Directional: Foresight Reverse
Set: 1 Angle: 341.3434
1140 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 270.2833
1141 Multiple Distances: Set: 1
Slope Distance: 367.096USft
1142 Repeat Foresight: Occupy Point: 9157
Foresight Point: 9159 Angle Right: 341.3434 Zenith
Angle: 270.2833 Slope Distance: 367.096USft Height of Rod: 5.02USft
Description: NS
1143 Repeat Directional: Foresight Direct
Set: 1 Angle: 161.3437
1144 Repeat Directional: Zenith Direct
Set: 1 Zenith: 89.3138
1145 Multiple Distances: Set: 1
Slope Distance: 367.094USft
1146 Repeat Foresight: Occupy Point: 9157
Foresight Point: 9159 Angle Right: 161.3437 Zenith
Angle: 89.3138 Slope Distance: 367.094USft Height of Rod: 5.02USft
Description: NS
1147 Note: Horizontal Angle Error: 0.0002
1148 Note: Zenith Angle Error: 0.0011
1149 Note: Slope Distance Error: 0.002
1150 Note: Horizontal Angle Error compares to the average:
0.0000
1151 Note: Zenith Angle Error compares to the average:
0.0000
1152 Note: Slope Distance Error compares to the average: 0.0
1153 Side Shot: Occupy Point: 9157
Foresight Point: 9159 Angle Right: 161.3437 Zenith
Angle: 89.31325 Slope Distance: 367.095USft Description: NS
1154 Note: Foresight Target:My Prism, HR:5.27 (5.27 + 0.0
Offset), Prism Const.:0.0mm
1155 Occupy Pt: Occupy Point: 9159
Northing: 1142944.217992USft Easting: 619907.840055USft
Elevation: 250.473113USft Description: NS
1156 Note: HR:5.27 (5.27 + 0.0 Offset)
1157 Line of Sight (HI/HR): Height of Instrument: 5.11USft
Height of Rod: 5.27USft
1158 Backsight: Occupy Point: 9159
Backsight Point: 9157 Backsight Azimuth: 299.230663 Backsight
Circle: 0.0000
1159 Note: Fixed HR at Backsight:5.27 (5.27 + 0.0 Offset),
Prism Const.:0.0mm
1160 Note: BS check 9159 - 9157:ZE90.2938,SD367.098,HD err=
0.00194, VD err= -0.005492
1161 Note: BS Circle check : angular err= 0.0000
1162 Note: Date: 09-11-2004 Time: 05:54:35
1163 Side Shot: Occupy Point: 9159
Foresight Point: 9160 Angle Right: 0.0000 Zenith
Angle: 90.2936 Slope Distance: 367.096USft Description: CHK9157
1164 Note: Foresight Target:My Prism, HR:8.5 (8.5 + 0.0
Offset), Prism Const.:0.0mm
1165 Note: HR:8.5 (8.5 + 0.0 Offset)
1166 Line of Sight (HI/HR): Height of Instrument: 5.11USft
Height of Rod: 8.5USft
1167 Off Center Shot: Angle Right: 178.5438
Zenith Angle: 93.1140 Slope Distance: 448.864USft
1168 Off Center Shot: Left/Right Offset: 0.9USft
Description: Left / Right Offset
1169 Side Shot: Occupy Point: 9159
Foresight Point: 9161 Angle Right: 179.013222 Zenith

Angle: 93.113998 Slope Distance: 448.864902USft Description: PT9017/B-6007
1170 Note: Foresight Target:My Prism, HR:4.9 (4.9 + 0.0 Offset), Prism Const.:0.0mm
1171 Note: HR:4.9 (4.9 + 0.0 Offset)
1172 Line of Sight (HI/HR): Height of Instrument: 5.11USft Height of Rod: 4.9USft
1173 Note: Date: 09-11-2004 Time: 06:11:06
1174 Off Center Shot: Angle Right: 132.5917 Zenith Angle: 90.2220 Slope Distance: 413.816USft
1175 Off Center Shot: Left/Right Offset: -0.52USft Description: Left / Right Offset
1176 Side Shot: Occupy Point: 9159 Foresight Point: 9162 Angle Right: 132.54578 Zenith Angle: 90.2220 Slope Distance: 413.816327USft Description: PT9016/B-6006
1177 Note: Date: 09-11-2004 Time: 06:30:31
1178 Occupy Pt: Occupy Point: 9159 Northing: 1142944.217992USft Easting: 619907.840055USft Elevation: 250.473113USft Description: NS
1179 Backsight: Occupy Point: 9159 Backsight Point: 9157 Backsight Azimuth: 299.230663 Backsight Circle: 0.0000
1180 Note: Fixed HR at Backsight:5.27 (5.27 + 0.0 Offset), Prism Const.:0.0mm
1181 Note: BS check 9159 - 9157:ZE90.2946,SD367.094,HD err= -0.002183, VD err= -0.019695
1182 Note: BS Circle check : angular err= 0.0000
1183 Note: Foresight Target:My Prism, HR:5.09 (5.09 + 0.0 Offset), Prism Const.:0.0mm
1184 Note: HR:5.09 (5.09 + 0.0 Offset)
1185 Line of Sight (HI/HR): Height of Instrument: 5.11USft Height of Rod: 5.09USft
1186 Repeat Directional: Backsight Direct Set: 1 Angle: 0.0000
1187 Repeat Directional: Backsight Reverse Set: 1 Angle: 179.5958
1188 Repeat Directional: Foresight Reverse Set: 1 Angle: 322.1550
1189 Repeat Directional: Zenith Reverse Set: 1 Zenith: 269.5730
1190 Multiple Distances: Set: 1 Slope Distance: 408.196USft
1191 Repeat Foresight: Occupy Point: 9159 Foresight Point: 9163 Angle Right: 322.1550 Zenith Angle: 269.5730 Slope Distance: 408.196USft Height of Rod: 5.09USft Description: NS
1192 Repeat Directional: Foresight Direct Set: 1 Angle: 142.1549
1193 Repeat Directional: Zenith Direct Set: 1 Zenith: 90.0230
1194 Multiple Distances: Set: 1 Slope Distance: 408.204USft
1195 Repeat Foresight: Occupy Point: 9159 Foresight Point: 9163 Angle Right: 142.1549 Zenith Angle: 90.0230 Slope Distance: 408.204USft Height of Rod: 5.09USft Description: NS
1196 Note: Horizontal Angle Error: 0.0003
1197 Note: Zenith Angle Error: 0.0000
1198 Note: Slope Distance Error: 0.008
1199 Note: Horizontal Angle Error compares to the average: 0.0000
1200 Note: Zenith Angle Error compares to the average: 0.0000
1201 Note: Slope Distance Error compares to the average: 0.0
1202 Side Shot: Occupy Point: 9159 Foresight Point: 9163 Angle Right: 142.15505 Zenith Angle: 90.0230 Slope Distance: 408.2USft Description: NS
1203 Note: Foresight Target:My Prism, HR:5.1 (5.1 + 0.0

Offset), Prism Const.:0.0mm
1204 Note: Date: 09-11-2004 Time: 06:54:30
1205 Occupy Pt: Occupy Point: 9157
Northing: 1143124.337374USft Easting: 619587.986162USft
Elevation: 247.154264USft Description: NS
1206 Note: HR:5.1 (5.1 + 0.0 Offset)
1207 Line of Sight (HI/HR): Height of Instrument: 5.09USft
Height of Rod: 5.1USft
1208 Backsight: Occupy Point: 9157
Backsight Point: 9159 Backsight Azimuth: 119.230663 Backsight
Circle: 0.0000
1209 Note: Fixed HR at Backsight:5.1 (5.1 + 0.0 Offset),
Prism Const.:0.0mm
1210 Note: BS check 9157 - 9159:ZE89.5748,SD408.192,HD err=
41.109495, VD err= -3.067625
1211 Note: BS Circle check : angular err= 0.0000
1212 Occupy Pt: Occupy Point: 9163
Northing: 1143003.502267USft Easting: 620311.711973USft
Elevation: 250.196261USft Description: NS
1213 Backsight: Occupy Point: 9163
Backsight Point: 9159 Backsight Azimuth: 261.385713 Backsight
Circle: 0.0000
1214 Note: Fixed HR at Backsight:5.1 (5.1 + 0.0 Offset),
Prism Const.:0.0mm
1215 Note: BS check 9163 - 9159:ZE89.5748,SD408.192,HD err=
-0.007976, VD err= -0.025627
1216 Note: BS Circle check : angular err= 0.0000
1217 Note: Foresight Target:My Prism, HR:5.09 (5.09 + 0.0
Offset), Prism Const.:0.0mm
1218 Occupy Pt: Occupy Point: 9163
Northing: 1143003.502267USft Easting: 620311.711973USft
Elevation: 250.196261USft Description: NS
1219 Note: HR:5.09 (5.09 + 0.0 Offset)
1220 Line of Sight (HI/HR): Height of Instrument: 5.09USft
Height of Rod: 5.09USft
1221 Backsight: Occupy Point: 9163
Backsight Point: 9159 Backsight Azimuth: 261.385713 Backsight
Circle: 0.0000
1222 Note: Fixed HR at Backsight:5.09 (5.09 + 0.0 Offset),
Prism Const.:0.0mm
1223 Note: BS check 9163 - 9159:ZE89.5748,SD408.186,HD err=
-0.013976, VD err= -0.015631
1224 Note: BS Circle check : angular err= 0.0000
1225 Note: BS check 9163 - 9159:ZE89.5745,SD408.19,HD err= -
0.009979, VD err= -0.009692
1226 Note: BS Circle check : angular err= 0.0000
1227 Side Shot: Occupy Point: 9163
Foresight Point: 9164 Angle Right: 0.0000 Zenith
Angle: 89.5746 Slope Distance: 408.186USft Description: CHK9159
1228 Occupy Pt: Occupy Point: 9163
Northing: 1143003.502267USft Easting: 620311.711973USft
Elevation: 250.196261USft Description: NS
1229 Backsight: Occupy Point: 9163
Backsight Point: 9159 Backsight Azimuth: 261.385713 Backsight
Circle: 0.0000
1230 Note: Fixed HR at Backsight:5.09 (5.09 + 0.0 Offset),
Prism Const.:0.0mm
1231 Note: BS check 9163 - 9159:ZE89.5736,SD408.19,HD err= -
0.009992, VD err= 0.008119
1232 Note: BS Circle check : angular err= 0.0000
1233 Occupy Pt: Occupy Point: 9163
Northing: 1143003.502267USft Easting: 620311.711973USft
Elevation: 250.196261USft Description: NS
1234 Backsight: Occupy Point: 9163
Backsight Point: 9159 Backsight Azimuth: 261.385713 Backsight
Circle: 0.0000
1235 Note: Fixed HR at Backsight:5.09 (5.09 + 0.0 Offset),

Prism Const.:0.0mm
1236 Note: BS check 9163 - 9159:ZE89.5742,SD408.19,HD err= -0.009983, VD err= -0.003755
1237 Note: BS Circle check : angular err= 0.0000
1238 Note: Foresight Target:My Prism, HR:5.3 (5.3 + 0.0 Offset), Prism Const.:0.0mm
1239 Note: HR:5.3 (5.3 + 0.0 Offset)
1240 Line of Sight (HI/HR): Height of Instrument: 5.09USft Height of Rod: 5.3USft
1241 Note: Date: 09-11-2004 Time: 07:09:35
1242 Repeat Directional: Backsight Direct Set: 1 Angle: 0.0000
1243 Repeat Directional: Backsight Reverse Set: 1 Angle: 180.0004
1244 Repeat Directional: Foresight Reverse Set: 1 Angle: 47.1801
1245 Repeat Directional: Zenith Reverse Set: 1 Zenith: 265.4042
1246 Multiple Distances: Set: 1 Slope Distance: 374.98USft
1247 Repeat Foresight: Occupy Point: 9163 Foresight Point: 9165 Angle Right: 47.1801 Zenith Angle: 265.4042 Slope Distance: 374.98USft Height of Rod: 5.3USft Description: NS
1248 Repeat Directional: Foresight Direct Set: 1 Angle: 227.1802
1249 Repeat Directional: Zenith Direct Set: 1 Zenith: 94.1921
1250 Multiple Distances: Set: 1 Slope Distance: 374.98USft
1251 Repeat Foresight: Occupy Point: 9163 Foresight Point: 9165 Angle Right: 227.1802 Zenith Angle: 94.1921 Slope Distance: 374.98USft Height of Rod: 5.3USft Description: NS
1252 Note: Horizontal Angle Error: 0.0005
1253 Note: Zenith Angle Error: 0.0003
1254 Note: Slope Distance Error: 0.0
1255 Note: Horizontal Angle Error compares to the average: 0.0000
1256 Note: Zenith Angle Error compares to the average: 0.0000
1257 Note: Slope Distance Error compares to the average: 0.0
1258 Side Shot: Occupy Point: 9163 Foresight Point: 9165 Angle Right: 227.17595 Zenith Angle: 94.19195 Slope Distance: 374.98USft Description: NS
1259 Note: Foresight Target:My Prism, HR:5.25 (5.25 + 0.0 Offset), Prism Const.:0.0mm
1260 Occupy Pt: Occupy Point: 9165 Northing: 1142768.449229USft Easting: 620602.50651USft Elevation: 221.72662USft Description: NS
1261 Note: HR:5.25 (5.25 + 0.0 Offset)
1262 Line of Sight (HI/HR): Height of Instrument: 5.19USft Height of Rod: 5.25USft
1263 Backsight: Occupy Point: 9165 Backsight Point: 9163 Backsight Azimuth: 308.565663 Backsight Circle: 0.0000
1264 Note: Fixed HR at Backsight:5.25 (5.25 + 0.0 Offset), Prism Const.:0.0mm
1265 Note: BS check 9165 - 9163:ZE85.3833,SD374.988,HD err= -0.009563, VD err= -0.038268
1266 Note: BS Circle check : angular err= 0.0000
1267 Note: BS check 9165 - 9163:ZE85.3835,SD374.986,HD err= -0.011281, VD err= -0.042045
1268 Note: BS Circle check : angular err= 0.0000
1269 Note: BS check 9165 - 9163:ZE85.3836,SD374.986,HD err= -0.011143, VD err= -0.043858
1270 Note: BS Circle check : angular err= 0.0000

1271 Note: BS check 9165 - 9163:ZE85.3836,SD374.99,HD err= -0.007154, VD err= -0.043554
1272 Note: BS Circle check : angular err= 0.0000
1273 Note: BS check 9165 - 9163:ZE85.3836,SD374.982,HD err= -0.015131, VD err= -0.044162
1274 Note: BS Circle check : angular err= 0.0000
1275 Note: BS check 9165 - 9163:ZE85.3837,SD374.998,HD err= 0.000961, VD err= -0.044759
1276 Note: BS Circle check : angular err= 0.0000
1277 Occupy Pt: Occupy Point: 9165
Northing: 1142768.449229USft Easting: 620602.50651USft
Elevation: 221.72662USft Description: NS
1278 Note: HR:5.25 (5.25 + 0.0 Offset)
1279 Line of Sight (HI/HR): Height of Instrument: 5.2USft
Height of Rod: 5.25USft
1280 Backsight: Occupy Point: 9165
Backsight Point: 9163 Backsight Azimuth: 308.565663 Backsight Circle: 0.0000
1281 Note: Fixed HR at Backsight:5.25 (5.25 + 0.0 Offset), Prism Const.:0.0mm
1282 Note: BS check 9165 - 9163:ZE85.3837,SD374.992,HD err= -0.005022, VD err= -0.035215
1283 Note: BS Circle check : angular err= 0.0000
1284 Note: Foresight Target:My Prism, HR:5.24 (5.24 + 0.0 Offset), Prism Const.:0.0mm
1285 Occupy Pt: Occupy Point: 9165
Northing: 1142768.449229USft Easting: 620602.50651USft
Elevation: 221.72662USft Description: NS
1286 Note: HR:5.24 (5.24 + 0.0 Offset)
1287 Line of Sight (HI/HR): Height of Instrument: 5.2USft
Height of Rod: 5.24USft
1288 Backsight: Occupy Point: 9165
Backsight Point: 9163 Backsight Azimuth: 308.565663 Backsight Circle: 0.0000
1289 Note: Fixed HR at Backsight:5.24 (5.24 + 0.0 Offset), Prism Const.:0.0mm
1290 Note: BS check 9165 - 9163:ZE85.3837,SD374.984,HD err= -0.012999, VD err= -0.025822
1291 Note: BS Circle check : angular err= 0.0000
1292 Note: BS check 9165 - 9163:ZE85.3828,SD374.988,HD err= -0.010254, VD err= -0.009204
1293 Note: BS Circle check : angular err= 0.0000
1294 Side Shot: Occupy Point: 9165
Foresight Point: 9166 Angle Right: 0.0001 Zenith Angle: 85.3828 Slope Distance: 374.992USft Description: CHK9163
1295 Note: Foresight Target:My Prism, HR:5.4 (5.4 + 0.0 Offset), Prism Const.:0.0mm
1296 Occupy Pt: Occupy Point: 9165
Northing: 1142768.449229USft Easting: 620602.50651USft
Elevation: 221.72662USft Description: NS
1297 Note: HR:5.4 (5.4 + 0.0 Offset)
1298 Line of Sight (HI/HR): Height of Instrument: 5.2USft
Height of Rod: 5.4USft
1299 Backsight: Occupy Point: 9165
Backsight Point: 9163 Backsight Azimuth: 308.565663 Backsight Circle: 0.0000
1300 Note: Fixed HR at Backsight:5.24 (5.24 + 0.0 Offset), Prism Const.:0.0mm
1301 Note: BS check 9165 - 9163:ZE85.3827,SD374.99,HD err= -0.008398, VD err= -0.007239
1302 Note: BS Circle check : angular err= 0.0000
1303 Occupy Pt: Occupy Point: 9165
Northing: 1142768.449229USft Easting: 620602.50651USft
Elevation: 221.72662USft Description: NS
1304 Backsight: Occupy Point: 9165
Backsight Point: 9163 Backsight Azimuth: 308.565663 Backsight Circle: 0.0000

1305 Note: Fixed HR at Backsight:5.24 (5.24 + 0.0 Offset), Prism Const.:0.0mm
1306 Note: BS check 9165 - 9163:ZE85.3826,SD374.992,HD err= -0.006542, VD err= -0.005274
1307 Note: BS Circle check : angular err= 0.0000
1308 Note: RD,BD 1:359.5959
1309 Note: RD,BV 1:180.0000
1310 Note: RD,FV 1:180.0000
1311 Note: RD,ZV 1:
1312 Note: MD,SD 1:
1313 Note: RF,OP9165,FP,AR180.0000,ZE,SD,HR5.4,--
1314 Note: RD,FD 1:0.0000
1315 Note: RD,ZD 1:
1316 Note: MD,SD 1:
1317 Note: RF,OP9165,FP,AR0.0000,ZE,SD,HR5.4,--
1318 Note: Horizontal Angle Error: 0.0000
1319 Note: Zenith Angle Error: 0.0000
1320 Repeat Directional: Backsight Direct Set: 1 Angle: 0.0000
1321 Repeat Directional: Backsight Reverse Set: 1 Angle: 179.5959
1322 Repeat Directional: Foresight Reverse Set: 1 Angle: 336.1549
1323 Repeat Directional: Zenith Reverse Set: 1 Zenith: 269.4356
1324 Multiple Distances: Set: 1 Slope Distance: 686.81USft
1325 Repeat Foresight: Occupy Point: 9165 Foresight Point: 9167 Angle Right: 336.1549 Zenith Angle: 269.4356 Slope Distance: 686.81USft Height of Rod: 5.4USft Description: NS
1326 Repeat Directional: Foresight Direct Set: 1 Angle: 156.1547
1327 Repeat Directional: Zenith Direct Set: 1 Zenith: 90.1612
1328 Multiple Distances: Set: 1 Slope Distance: 686.816USft
1329 Repeat Foresight: Occupy Point: 9165 Foresight Point: 9167 Angle Right: 156.1547 Zenith Angle: 90.1612 Slope Distance: 686.816USft Height of Rod: 5.4USft Description: NS
1330 Note: Horizontal Angle Error: 0.0003
1331 Note: Zenith Angle Error: 0.0008
1332 Note: Slope Distance Error: 0.006
1333 Note: Horizontal Angle Error compares to the average: 0.0000
1334 Note: Zenith Angle Error compares to the average: 0.0000
1335 Note: Slope Distance Error compares to the average: 0.0
1336 Side Shot: Occupy Point: 9165 Foresight Point: 9167 Angle Right: 156.15485 Zenith Angle: 90.1608 Slope Distance: 686.813USft Description: NS
1337 Note: Foresight Target:My Prism, HR:5.17 (5.17 + 0.0 Offset), Prism Const.:0.0mm
1338 Occupy Pt: Occupy Point: 9167 Northing: 1142588.23127USft Easting: 621265.24567USft Elevation: 218.303421USft Description: NS
1339 Note: HR:5.17 (5.17 + 0.0 Offset)
1340 Line of Sight (HI/HR): Height of Instrument: 5.21USft Height of Rod: 5.17USft
1341 Backsight: Occupy Point: 9167 Backsight Point: 9165 Backsight Azimuth: 285.124513 Backsight Circle: 0.0000
1342 Note: Fixed HR at Backsight:5.17 (5.17 + 0.0 Offset), Prism Const.:0.0mm
1343 Note: BS check 9167 - 9165:ZE89.4356,SD686.806,HD err= -0.006938, VD err= -0.173352

1344 Note: BS Circle check : angular err= 0.0000
1345 Note: BS check 9167 - 9165:ZE89.4356,SD686.81,HD err= -0.002938, VD err= -0.173333
1346 Note: BS Circle check : angular err= 0.0000
1347 Note: BS check 9167 - 9165:ZE89.4354,SD686.806,HD err= -0.006969, VD err= -0.166692
1348 Note: BS Circle check : angular err= 0.0000
1349 Note: Date: 09-11-2004 Time: 08:21:15
1350 Occupy Pt: Occupy Point: 9167
Northing: 1142588.23127USft Easting: 621265.24567USft
Elevation: 218.303421USft Description: NS
1351 Backsight: Occupy Point: 9167
Backsight Point: 9165 Backsight Azimuth: 285.124513 Backsight Circle: 0.0000
1352 Note: Fixed HR at Backsight:5.17 (5.17 + 0.0 Offset), Prism Const.:0.0mm
1353 Note: BS check 9167 - 9165:ZE89.4353,SD686.812,HD err= -0.000984, VD err= -0.163334
1354 Note: BS Circle check : angular err= 0.0000
1355 Occupy Pt: Occupy Point: 9163
Northing: 1143003.502267USft Easting: 620311.711973USft
Elevation: 250.196261USft Description: NS
1356 Backsight: Occupy Point: 9163
Backsight Point: 9165 Backsight Azimuth: 128.565663 Backsight Circle: 0.0000
1357 Note: Fixed HR at Backsight:5.17 (5.17 + 0.0 Offset), Prism Const.:0.0mm
1358 Note: BS check 9163 - 9165:ZE89.4352,SD686.804,HD err= 312.88282, VD err= 31.732798
1359 Note: BS Circle check : angular err= 0.0000
1360 Store Point: Point Name: 9167
Northing: 1142588.23127USft Easting: 621265.24567USft
Elevation: 218.466421USft Description: NS
1361 Occupy Pt: Occupy Point: 9167
Northing: 1142588.23127USft Easting: 621265.24567USft
Elevation: 218.466421USft Description: NS
1362 Backsight: Occupy Point: 9167
Backsight Point: 9165 Backsight Azimuth: 285.124513 Backsight Circle: 0.0000
1363 Note: Fixed HR at Backsight:5.17 (5.17 + 0.0 Offset), Prism Const.:0.0mm
1364 Note: BS check 9167 - 9165:ZE89.4349,SD686.812,HD err= -0.001047, VD err= 0.012985
1365 Note: BS Circle check : angular err= 0.0000
1366 Side Shot: Occupy Point: 9167
Foresight Point: 9168 Angle Right: 0.0000 Zenith Angle: 89.4349 Slope Distance: 686.804USft Description: CHK9165
1367 Note: Foresight Target:My Prism, HR:5.29 (5.29 + 0.0 Offset), Prism Const.:0.0mm
1368 Occupy Pt: Occupy Point: 9167
Northing: 1142588.23127USft Easting: 621265.24567USft
Elevation: 218.466421USft Description: NS
1369 Note: HR:5.29 (5.29 + 0.0 Offset)
1370 Line of Sight (HI/HR): Height of Instrument: 5.21USft
Height of Rod: 5.29USft
1371 Backsight: Occupy Point: 9167
Backsight Point: 9165 Backsight Azimuth: 285.124513 Backsight Circle: 0.0000
1372 Note: Fixed HR at Backsight:5.17 (5.17 + 0.0 Offset), Prism Const.:0.0mm
1373 Note: BS check 9167 - 9165:ZE89.4347,SD686.8,HD err= -0.013078, VD err= 0.019588
1374 Note: BS Circle check : angular err= 0.0000
1375 Note: BS check 9167 - 9165:ZE89.4346,SD686.798,HD err= -0.015094, VD err= 0.022908
1376 Note: BS Circle check : angular err= 0.0000
1377 Note: BS check 9167 - 9165:ZE89.4344,SD686.816,HD err=

0.002874, VD err= 0.029652
1378 Note: BS Circle check : angular err= 0.0000
1379 Note: BS check 9167 - 9165:ZE89.4345,SD686.804,HD err= -0.00911, VD err= 0.026266
1380 Note: BS Circle check : angular err= 0.0001
1381 Note: BS check 9167 - 9165:ZE89.4345,SD686.81,HD err= -0.00311, VD err= 0.026294
1382 Note: BS Circle check : angular err= 0.0000
1383 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
1384 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0000
1385 Repeat Directional: Foresight Reverse
Set: 1 Angle: 340.2255
1386 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 270.0239
1387 Multiple Distances: Set: 1
Slope Distance: 635.52USft
1388 Repeat Foresight: Occupy Point: 9167
Foresight Point: 9169 Angle Right: 340.2255 Zenith Angle: 270.0239 Slope Distance: 635.52USft Height of Rod: 5.29USft
Description: NS
1389 Repeat Directional: Foresight Direct
Set: 1 Angle: 160.2252
1390 Repeat Directional: Zenith Direct
Set: 1 Zenith: 89.5735
1391 Multiple Distances: Set: 1
Slope Distance: 635.522USft
1392 Repeat Foresight: Occupy Point: 9167
Foresight Point: 9169 Angle Right: 160.2252 Zenith Angle: 89.5735 Slope Distance: 635.522USft Height of Rod: 5.29USft
Description: NS
1393 Note: Horizontal Angle Error: 0.0003
1394 Note: Zenith Angle Error: 0.0014
1395 Note: Slope Distance Error: 0.002
1396 Note: Horizontal Angle Error compares to the average: 0.0000
1397 Note: Zenith Angle Error compares to the average: 0.0000
1398 Note: Slope Distance Error compares to the average: 0.0
1399 Side Shot: Occupy Point: 9167
Foresight Point: 9169 Angle Right: 160.22535 Zenith Angle: 89.5728 Slope Distance: 635.521USft Description: NS
1400 Store Point: Point Name: 9169
Northing: 1142637.053462USft Easting: 621898.888405USft
Elevation: 218.854747USft Description: PT11
1401 Note: Foresight Target:My Prism, HR:5.25 (5.25 + 0.0 Offset), Prism Const.:0.0mm
1402 Occupy Pt: Occupy Point: 9169
Northing: 1142637.053462USft Easting: 621898.888405USft
Elevation: 218.854747USft Description: PT11
1403 Note: HR:5.25 (5.25 + 0.0 Offset)
1404 Line of Sight (HI/HR): Height of Instrument: 5.45USft
Height of Rod: 5.25USft
1405 Backsight: Occupy Point: 9169
Backsight Point: 9167 Backsight Azimuth: 265.353863 Backsight Circle: 0.0000
1406 Note: Fixed HR at Backsight:5.25 (5.25 + 0.0 Offset), Prism Const.:0.0mm
1407 Note: BS check 9169 - 9167:ZE90.0336,SD635.52,HD err= -0.001176, VD err= -0.077189
1408 Note: BS Circle check : angular err= 0.0000
1409 Note: BS check 9169 - 9167:ZE90.0332,SD635.51,HD err= -0.011163, VD err= -0.064854
1410 Note: BS Circle check : angular err= 0.0000
1411 Occupy Pt: Occupy Point: 9169
Northing: 1142637.053462USft Easting: 621898.888405USft

Elevation: 218.854747USft Description: PT11
1412 Note: HR:5.25 (5.25 + 0.0 Offset)
1413 Line of Sight (HI/HR): Height of Instrument: 5.46USft
Height of Rod: 5.25USft
1414 Backsight: Occupy Point: 9169
Backsight Point: 9167 Backsight Azimuth: 265.353863 Backsight
Circle: 0.0000
1415 Note: Fixed HR at Backsight:5.25 (5.25 + 0.0 Offset),
Prism Const.:0.0mm
1416 Note: BS check 9169 - 9167:ZE90.0330,SD635.516,HD err=
-0.005157, VD err= -0.048698
1417 Note: BS Circle check : angular err= 0.0000
1418 Note: Foresight Target:My Prism, HR:5.22 (5.22 + 0.0
Offset), Prism Const.:0.0mm
1419 Occupy Pt: Occupy Point: 9169
Northing: 1142637.053462USft Easting: 621898.888405USft
Elevation: 218.854747USft Description: PT11
1420 Note: HR:5.22 (5.22 + 0.0 Offset)
1421 Line of Sight (HI/HR): Height of Instrument: 5.46USft
Height of Rod: 5.22USft
1422 Backsight: Occupy Point: 9169
Backsight Point: 9167 Backsight Azimuth: 265.353863 Backsight
Circle: 0.0000
1423 Note: Fixed HR at Backsight:5.22 (5.22 + 0.0 Offset),
Prism Const.:0.0mm
1424 Note: BS check 9169 - 9167:ZE90.0328,SD635.52,HD err= -
0.001151, VD err= -0.01254
1425 Note: BS Circle check : angular err= 0.0000
1426 Note: Date: 09-11-2004 Time: 08:43:33
1427 Side Shot: Occupy Point: 9169
Foresight Point: 9170 Angle Right: 0.0000 Zenith
Angle: 90.0328 Slope Distance: 635.514USft Description: CHK9167
1428 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
1429 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0003
1430 Repeat Directional: Foresight Reverse
Set: 1 Angle: 283.1954
1431 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 270.1840
1432 Multiple Distances: Set: 1
Slope Distance: 632.274USft
1433 Repeat Foresight: Occupy Point: 9169
Foresight Point: 9171 Angle Right: 283.1954 Zenith
Angle: 270.1840 Slope Distance: 632.274USft Height of Rod: 5.22USft
Description: PT14
1434 Repeat Directional: Foresight Direct
Set: 1 Angle: 103.1957
1435 Repeat Directional: Zenith Direct
Set: 1 Zenith: 89.4143
1436 Multiple Distances: Set: 1
Slope Distance: 632.268USft
1437 Repeat Foresight: Occupy Point: 9169
Foresight Point: 9171 Angle Right: 103.1957 Zenith
Angle: 89.4143 Slope Distance: 632.268USft Height of Rod: 5.22USft
Description: PT14
1438 Note: Horizontal Angle Error: 0.0006
1439 Note: Zenith Angle Error: 0.0023
1440 Note: Slope Distance Error: 0.006
1441 Note: Horizontal Angle Error compares to the average:
0.0000
1442 Note: Zenith Angle Error compares to the average:
0.0000
1443 Note: Slope Distance Error compares to the average: 0.0
1444 Side Shot: Occupy Point: 9169
Foresight Point: 9171 Angle Right: 103.1954 Zenith
Angle: 89.41315 Slope Distance: 632.271USft Description: PT14

1445 Note: Foresight Target:My Prism, HR:4.95 (4.95 + 0.0 Offset), Prism Const.:0.0mm
1446 Occupy Pt: Occupy Point: 9127
Northing: 1144346.109793USft Easting: 622018.013656USft
Elevation: 273.50465USft Description: NS
1447 Note: HR:4.95 (4.95 + 0.0 Offset)
1448 Line of Sight (HI/HR): Height of Instrument: 5.25USft
Height of Rod: 4.95USft
1449 Backsight: Occupy Point: 9127
Backsight Point: 9124 Backsight Azimuth: 356.444913 Backsight Circle: 0.0000
1450 Note: Fixed HR at Backsight:4.95 (4.95 + 0.0 Offset), Prism Const.:0.0mm
1451 Note: BS check 9127 - 9124:ZE94.0654,SD486.9,HD err= -0.012627, VD err= -0.028006
1452 Note: BS Circle check : angular err= 0.0000
1453 Note: BS check 9127 - 9124:ZE94.0645,SD486.898,HD err= -0.013098, VD err= -0.006672
1454 Note: BS Circle check : angular err= 0.0000
1455 Side Shot: Occupy Point: 9127
Foresight Point: 9172 Angle Right: 0.0000 Zenith Angle: 94.0647 Slope Distance: 486.898USft Description: CHK9124
1456 Note: Date: 09-11-2004 Time: 09:24:33
1457 Note: Foresight Target:My Prism, HR:12.0 (12.0 + 0.0 Offset), Prism Const.:0.0mm
1458 Note: HR:12.0 (12.0 + 0.0 Offset)
1459 Line of Sight (HI/HR): Height of Instrument: 5.25USft
Height of Rod: 12.0USft
1460 Store Point: Point Name: 9173
Northing: 1143998.965411USft Easting: 621728.971629USft
Elevation: 271.012174USft Description: PT9026/ER1103-4
1461 Cut Sheet: Elevation: 271.012174USft
Design Grade: 0.0
1462 Design Point/Location: Point Name: 9026
Northing: 1143999.0USft Easting: 621729.0USft
Elevation: 0.0USft Description: ER-1103-1104
1463 Stakeout Deltas: Delta Northing: 0.034589USft
Delta Easting: 0.028371USft Delta Elevation: -271.012174USft
1464 Stakeout: Occupy Point: 9127
Foresight Point: 9173 Angle Right: 223.0205 Zenith Angle: 89.2736 Slope Distance: 451.744USft Description: PT9026/ER1103-4
1465 Note: Foresight Target:My Prism, HR:4.95 (4.95 + 0.0 Offset), Prism Const.:0.0mm
1466 Note: HR:4.95 (4.95 + 0.0 Offset)
1467 Line of Sight (HI/HR): Height of Instrument: 5.25USft
Height of Rod: 4.95USft
1468 Side Shot: Occupy Point: 9127
Foresight Point: 9174 Angle Right: 0.0002 Zenith Angle: 94.0647 Slope Distance: 486.898USft Description: CHK9124
1469 Note: Foresight Target:My Prism, HR:5.23 (5.23 + 0.0 Offset), Prism Const.:0.0mm
1470 Occupy Pt: Occupy Point: 9155
Northing: 1143387.277878USft Easting: 618991.388764USft
Elevation: 221.923332USft Description: NS
1471 Note: HR:5.23 (5.23 + 0.0 Offset)
1472 Line of Sight (HI/HR): Height of Instrument: 4.87USft
Height of Rod: 5.23USft
1473 Backsight: Occupy Point: 9155
Backsight Point: 9147 Backsight Azimuth: 82.480763 Backsight Circle: 0.0000
1474 Note: Fixed HR at Backsight:5.23 (5.23 + 0.0 Offset), Prism Const.:0.0mm
1475 Note: BS check 9155 - 9147:ZE87.5325,SD324.22,HD err= 0.000225, VD err= -0.01729
1476 Note: BS Circle check : angular err= 0.0000
1477 Note: BS check 9155 - 9147:ZE87.5328,SD324.222,HD err=

0.002398, VD err= -0.021929
1478 Note: BS Circle check : angular err= 0.0000
1479 Note: BS check 9155 - 9147:ZE87.5321,SD324.224,HD err= 0.003991, VD err= -0.01086
1480 Note: BS Circle check : angular err= 0.0000
1481 Side Shot: Occupy Point: 9155
Foresight Point: 9175 Angle Right: 0.0000 Zenith Angle: 87.5321 Slope Distance: 324.224USft Description: CHK9147
1482 Note: Date: 09-11-2004 Time: 09:57:32
1483 Note: Foresight Target:My Prism, HR:4.9 (4.9 + 0.0 Offset), Prism Const.:0.0mm
1484 Occupy Pt: Occupy Point: 9155
Northing: 1143387.277878USft Easting: 618991.388764USft
Elevation: 221.923332USft Description: NS
1485 Note: HR:4.9 (4.9 + 0.0 Offset)
1486 Line of Sight (HI/HR): Height of Instrument: 4.87USft
Height of Rod: 4.9USft
1487 Backsight: Occupy Point: 9155
Backsight Point: 9147 Backsight Azimuth: 82.480763 Backsight Circle: 0.0000
1488 Note: Fixed HR at Backsight:5.23 (5.23 + 0.0 Offset), Prism Const.:0.0mm
1489 Note: BS check 9155 - 9147:ZE87.5320,SD324.222,HD err= 0.001935, VD err= -0.009362
1490 Note: BS Circle check : angular err= 0.0000
1491 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
1492 Repeat Directional: Backsight Reverse
Set: 1 Angle: 179.5957
1493 Repeat Directional: Foresight Reverse
Set: 1 Angle: 316.2714
1494 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 269.0950
1495 Multiple Distances: Set: 1
Slope Distance: 578.208USft
1496 Repeat Foresight: Occupy Point: 9155
Foresight Point: 9176 Angle Right: 316.2714 Zenith Angle: 269.0950 Slope Distance: 578.208USft Height of Rod: 4.9USft
Description: NS
1497 Repeat Directional: Foresight Direct
Set: 1 Angle: 136.2715
1498 Repeat Directional: Zenith Direct
Set: 1 Zenith: 90.5017
1499 Multiple Distances: Set: 1
Slope Distance: 578.22USft
1500 Repeat Foresight: Occupy Point: 9155
Foresight Point: 9176 Angle Right: 136.2715 Zenith Angle: 90.5017 Slope Distance: 578.22USft Height of Rod: 4.9USft
Description: NS
1501 Note: Horizontal Angle Error: 0.0002
1502 Note: Zenith Angle Error: 0.0007
1503 Note: Slope Distance Error: 0.012
1504 Note: Horizontal Angle Error compares to the average: 0.0000
1505 Note: Zenith Angle Error compares to the average: 0.0000
1506 Note: Slope Distance Error compares to the average: 0.0
1507 Side Shot: Occupy Point: 9155
Foresight Point: 9176 Angle Right: 136.2716 Zenith Angle: 90.50135 Slope Distance: 578.214USft Description: NS
1508 Note: Foresight Target:My Prism, HR:4.96 (4.96 + 0.0 Offset), Prism Const.:0.0mm
1509 Occupy Pt: Occupy Point: 9176
Northing: 1142939.602904USft Easting: 618625.537442USft
Elevation: 213.446007USft Description: NS
1510 Note: HR:4.96 (4.96 + 0.0 Offset)
1511 Line of Sight (HI/HR): Height of Instrument: 5.21USft

Height of Rod: 4.96USft
1512 Backsight: Occupy Point: 9176
Backsight Point: 9155 Backsight Azimuth: 39.152363 Backsight Circle: 0.0000
1513 Note: Fixed HR at Backsight:4.96 (4.96 + 0.0 Offset), Prism Const.:0.0mm
1514 Note: Date: 09-11-2004 Time: 10:22:54
1515 Note: BS check 9176 - 9155:ZE89.1127,SD578.208,HD err= -0.001952, VD err= -0.061783
1516 Note: BS Circle check : angular err= 0.0000
1517 Note: BS check 9176 - 9155:ZE89.1117,SD578.212,HD err= 0.001651, VD err= -0.033697
1518 Note: BS Circle check : angular err= 0.0000
1519 Note: Foresight Target:My Prism, HR:4.94 (4.94 + 0.0 Offset), Prism Const.:0.0mm
1520 Occupy Pt: Occupy Point: 9176
Northing: 1142939.602904USft Easting: 618625.537442USft
Elevation: 213.446007USft Description: NS
1521 Note: HR:4.94 (4.94 + 0.0 Offset)
1522 Line of Sight (HI/HR): Height of Instrument: 5.21USft
Height of Rod: 4.94USft
1523 Backsight: Occupy Point: 9176
Backsight Point: 9155 Backsight Azimuth: 39.152363 Backsight Circle: 0.0000
1524 Note: Fixed HR at Backsight:4.94 (4.94 + 0.0 Offset), Prism Const.:0.0mm
1525 Note: BS check 9176 - 9155:ZE89.1117,SD578.208,HD err= -0.002349, VD err= -0.013754
1526 Note: BS Circle check : angular err= 0.0000
1527 Side Shot: Occupy Point: 9176
Foresight Point: 9177 Angle Right: 0.0000 Zenith Angle: 89.1118 Slope Distance: 578.206USft Description: CHK9155
1528 Note: Date: 09-11-2004 Time: 10:40:23
1529 Store Point: Point Name: 9178
Northing: 1143166.202357USft Easting: 618284.598455USft
Elevation: 209.4289USft Description: PT9024/B-6014
1530 Cut Sheet: Elevation: 209.4289USft
Design Grade: 0.0
1531 Design Point/Location: Point Name: 9024
Northing: 1143166.2USft Easting: 618284.6USft
Elevation: 0.0USft Description: B-6014
1532 Stakeout Deltas: Delta Northing: -0.002357USft
Delta Easting: 0.001545USft Delta Elevation: -209.4289USft
1533 Stakeout: Occupy Point: 9176
Foresight Point: 9178 Angle Right: 264.2110 Zenith Angle: 90.3600 Slope Distance: 409.396USft Description: PT9024/B-6014
1534 Note: Date: 09-11-2004 Time: 10:55:27
1535 Note: Foresight Target:My Prism, HR:5.0 (5.0 + 0.0 Offset), Prism Const.:0.0mm
1536 Occupy Pt: Occupy Point: 9176
Northing: 1142939.602904USft Easting: 618625.537442USft
Elevation: 213.446007USft Description: NS
1537 Note: HR:5.0 (5.0 + 0.0 Offset)
1538 Line of Sight (HI/HR): Height of Instrument: 5.21USft
Height of Rod: 5.0USft
1539 Backsight: Occupy Point: 9176
Backsight Point: 9155 Backsight Azimuth: 39.152363 Backsight Circle: 0.0000
1540 Note: Fixed HR at Backsight:4.94 (4.94 + 0.0 Offset), Prism Const.:0.0mm
1541 Note: BS check 9176 - 9155:ZE89.1127,SD578.206,HD err= -0.003952, VD err= -0.041812
1542 Note: BS Circle check : angular err= 0.0000
1543 Note: BS check 9176 - 9155:ZE89.1121,SD578.21,HD err= -0.00019, VD err= -0.024937
1544 Note: BS Circle check : angular err= 0.0000
1545 Repeat Directional: Backsight Direct

Set: 1 Angle: 0.0000
1546 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0001
1547 Repeat Directional: Foresight Reverse
Set: 1 Angle: 28.5404
1548 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 269.0050
1549 Multiple Distances: Set: 1
Slope Distance: 256.354USft
1550 Repeat Foresight: Occupy Point: 9176
Foresight Point: 9179 Angle Right: 28.5404 Zenith
Angle: 269.0050 Slope Distance: 256.354USft Height of Rod: 5.0USft
Description: NS
1551 Repeat Directional: Foresight Direct
Set: 1 Angle: 208.5404
1552 Repeat Directional: Zenith Direct
Set: 1 Zenith: 90.5928
1553 Multiple Distances: Set: 1
Slope Distance: 256.356USft
1554 Repeat Foresight: Occupy Point: 9176
Foresight Point: 9179 Angle Right: 208.5404 Zenith
Angle: 90.5928 Slope Distance: 256.356USft Height of Rod: 5.0USft
Description: NS
1555 Note: Horizontal Angle Error: 0.0001
1556 Note: Zenith Angle Error: 0.0018
1557 Note: Slope Distance Error: 0.002
1558 Note: Horizontal Angle Error compares to the average:
0.0000
1559 Note: Zenith Angle Error compares to the average:
0.0000
1560 Note: Slope Distance Error compares to the average: 0.0
1561 Side Shot: Occupy Point: 9176
Foresight Point: 9179 Angle Right: 208.54035 Zenith
Angle: 90.5919 Slope Distance: 256.355USft Description: NS
1562 Note: Foresight Target:My Prism, HR:4.89 (4.89 + 0.0
Offset), Prism Const.:0.0mm
1563 Occupy Pt: Occupy Point: 9179
Northing: 1142844.238719USft Easting: 618387.621502USft
Elevation: 209.232944USft Description: NS
1564 Note: HR:4.89 (4.89 + 0.0 Offset)
1565 Line of Sight (HI/HR): Height of Instrument: 5.24USft
Height of Rod: 4.89USft
1566 Backsight: Occupy Point: 9179
Backsight Point: 9176 Backsight Azimuth: 68.092713 Backsight
Circle: 0.0000
1567 Note: Fixed HR at Backsight:4.89 (4.89 + 0.0 Offset),
Prism Const.:0.0mm
1568 Note: BS check 9179 - 9176:ZE89.0807,SD256.35,HD err=
0.003965, VD err= 0.005689
1569 Note: BS Circle check : angular err= 0.0000
1570 Side Shot: Occupy Point: 9179
Foresight Point: 9180 Angle Right: 0.0000 Zenith
Angle: 89.0807 Slope Distance: 256.352USft Description: CHK9176
1571 Note: Date: 09-12-2004 Time: 03:46:52
1572 Note: Foresight Target:My Prism, HR:5.22 (5.22 + 0.0
Offset), Prism Const.:0.0mm
1573 Occupy Pt: Occupy Point: 9179
Northing: 1142844.238719USft Easting: 618387.621502USft
Elevation: 209.232944USft Description: NS
1574 Note: HR:5.22 (5.22 + 0.0 Offset)
1575 Line of Sight (HI/HR): Height of Instrument: 5.24USft
Height of Rod: 5.22USft
1576 Backsight: Occupy Point: 9179
Backsight Point: 9176 Backsight Azimuth: 68.092713 Backsight
Circle: 0.0000
1577 Note: Fixed HR at Backsight:4.89 (4.89 + 0.0 Offset),
Prism Const.:0.0mm

1578 Note: BS check 9179 - 9176:ZE89.0805,SD256.346,HD err= -0.000072, VD err= 0.008114
1579 Note: BS Circle check : angular err= 0.0000
1580 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
1581 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0001
1582 Repeat Directional: Foresight Reverse
Set: 1 Angle: 29.3355
1583 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 273.3412
1584 Multiple Distances: Set: 1
Slope Distance: 425.196USft
1585 Repeat Foresight: Occupy Point: 9179
Foresight Point: 9181 Angle Right: 29.3355 Zenith Angle: 273.3412 Slope Distance: 425.196USft Height of Rod: 5.22USft Description: NS
1586 Repeat Directional: Foresight Direct
Set: 1 Angle: 209.3400
1587 Repeat Directional: Zenith Direct
Set: 1 Zenith: 86.2556
1588 Multiple Distances: Set: 1
Slope Distance: 425.202USft
1589 Repeat Foresight: Occupy Point: 9179
Foresight Point: 9181 Angle Right: 209.3400 Zenith Angle: 86.2556 Slope Distance: 425.202USft Height of Rod: 5.22USft Description: NS
1590 Note: Horizontal Angle Error: 0.0006
1591 Note: Zenith Angle Error: 0.0008
1592 Note: Slope Distance Error: 0.006
1593 Note: Horizontal Angle Error compares to the average: 0.0000
1594 Note: Zenith Angle Error compares to the average: 0.0000
1595 Note: Slope Distance Error compares to the average: 0.0
1596 Side Shot: Occupy Point: 9179
Foresight Point: 9181 Angle Right: 209.3357 Zenith Angle: 86.2552 Slope Distance: 425.199USft Description: NS
1597 Note: Foresight Target:My Prism, HR:4.87 (4.87 + 0.0 Offset), Prism Const.:0.0mm
1598 Occupy Pt: Occupy Point: 9181
Northing: 1142901.270549USft Easting: 617967.096826USft
Elevation: 235.720982USft Description: NS
1599 Note: HR:4.87 (4.87 + 0.0 Offset)
1600 Line of Sight (HI/HR): Height of Instrument: 5.25USft
Height of Rod: 4.87USft
1601 Backsight: Occupy Point: 9181
Backsight Point: 9179 Backsight Azimuth: 97.432413 Backsight Circle: 0.0000
1602 Note: Fixed HR at Backsight:4.87 (4.87 + 0.0 Offset), Prism Const.:0.0mm
1603 Note: BS check 9181 - 9179:ZE93.3726,SD425.228,HD err= 0.003339, VD err= -0.009191
1604 Note: BS Circle check : angular err= 0.0000
1605 Side Shot: Occupy Point: 9181
Foresight Point: 9182 Angle Right: 0.0000 Zenith Angle: 93.3727 Slope Distance: 425.228USft Description: CHK9179
1606 Note: Foresight Target:My Prism, HR:5.3 (5.3 + 0.0 Offset), Prism Const.:0.0mm
1607 Note: HR:5.3 (5.3 + 0.0 Offset)
1608 Line of Sight (HI/HR): Height of Instrument: 5.25USft
Height of Rod: 5.3USft
1609 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
1610 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0001
1611 Repeat Directional: Foresight Reverse

Set: 1 Angle: 0.4946
1612 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 271.0028
1613 Multiple Distances: Set: 1
Slope Distance: 499.8USft
1614 Repeat Foresight: Occupy Point: 9181
Foresight Point: 9183 Angle Right: 0.4946 Zenith
Angle: 271.0028 Slope Distance: 499.8USft Height of Rod: 5.3USft
Description: NS
1615 Repeat Directional: Foresight Direct
Set: 1 Angle: 180.4949
1616 Repeat Directional: Zenith Direct
Set: 1 Zenith: 88.5938
1617 Multiple Distances: Set: 1
Slope Distance: 499.804USft
1618 Repeat Foresight: Occupy Point: 9181
Foresight Point: 9183 Angle Right: 180.4949 Zenith
Angle: 88.5938 Slope Distance: 499.804USft Height of Rod: 5.3USft
Description: NS
1619 Note: Horizontal Angle Error: 0.0004
1620 Note: Zenith Angle Error: 0.0006
1621 Note: Slope Distance Error: 0.004
1622 Note: Horizontal Angle Error compares to the average:
0.0000
1623 Note: Zenith Angle Error compares to the average:
0.0000
1624 Note: Slope Distance Error compares to the average: 0.0
1625 Side Shot: Occupy Point: 9181
Foresight Point: 9183 Angle Right: 180.4947 Zenith
Angle: 88.5935 Slope Distance: 499.802USft Description: NS
1626 Note: Date: 09-12-2004 Time: 04:15:25
1627 Note: Foresight Target:My Prism, HR:5.14 (5.14 + 0.0
Offset), Prism Const.:0.0mm
1628 Occupy Pt: Occupy Point: 9183
Northing: 1142975.592517USft Easting: 617472.929711USft
Elevation: 244.454298USft Description: NS
1629 Note: HR:5.14 (5.14 + 0.0 Offset)
1630 Line of Sight (HI/HR): Height of Instrument: 5.25USft
Height of Rod: 5.14USft
1631 Backsight: Occupy Point: 9183
Backsight Point: 9181 Backsight Azimuth: 98.331113 Backsight
Circle: 0.0000
1632 Note: Fixed HR at Backsight:5.14 (5.14 + 0.0 Offset),
Prism Const.:0.0mm
1633 Note: BS check 9183 - 9181:ZE91.0117,SD499.798,HD err=
-0.00623, VD err= -0.065911
1634 Note: BS Circle check : angular err= 0.0000
1635 Note: BS check 9183 - 9181:ZE91.0119,SD499.796,HD err=
-0.008316, VD err= -0.07072
1636 Note: BS Circle check : angular err= 0.0000
1637 Occupy Pt: Occupy Point: 9183
Northing: 1142975.592517USft Easting: 617472.929711USft
Elevation: 244.454298USft Description: NS
1638 Backsight: Occupy Point: 9183
Backsight Point: 9181 Backsight Azimuth: 98.331113 Backsight
Circle: 0.0000
1639 Note: Fixed HR at Backsight:0.0 (0.0 + 0.0 Offset),
Prism Const.:0.0mm
1640 Note: BS check 9183 - 9181:ZE91.0119,SD499.8,HD err= -
0.004316, VD err= 5.069208
1641 Note: BS Circle check : angular err= 0.0000
1642 Note: Foresight Target:My Prism, HR:5.07 (5.07 + 0.0
Offset), Prism Const.:0.0mm
1643 Occupy Pt: Occupy Point: 9183
Northing: 1142975.592517USft Easting: 617472.929711USft
Elevation: 244.454298USft Description: NS
1644 Note: HR:5.07 (5.07 + 0.0 Offset)

1645 Line of Sight (HI/HR): Height of Instrument: 5.25USft
Height of Rod: 5.07USft
1646 Backsight: Occupy Point: 9183
Backsight Point: 9181 Backsight Azimuth: 98.331113 Backsight
Circle: 0.0000
1647 Note: Fixed HR at Backsight:5.07 (5.07 + 0.0 Offset),
Prism Const.:0.0mm
1648 Note: BS check 9183 - 9181:ZE91.0114,SD499.802,HD err=
-0.002101, VD err= 0.011286
1649 Note: BS Circle check : angular err= 0.0000
1650 Note: Foresight Target:My Prism, HR:5.08 (5.08 + 0.0
Offset), Prism Const.:0.0mm
1651 Occupy Pt: Occupy Point: 9183
Northing: 1142975.592517USft Easting: 617472.929711USft
Elevation: 244.454298USft Description: NS
1652 Note: HR:5.08 (5.08 + 0.0 Offset)
1653 Line of Sight (HI/HR): Height of Instrument: 5.25USft
Height of Rod: 5.08USft
1654 Backsight: Occupy Point: 9183
Backsight Point: 9181 Backsight Azimuth: 98.331113 Backsight
Circle: 0.0000
1655 Note: Fixed HR at Backsight:5.08 (5.08 + 0.0 Offset),
Prism Const.:0.0mm
1656 Note: BS check 9183 - 9181:ZE91.0119,SD499.8,HD err= -
0.004316, VD err= -0.010792
1657 Note: BS Circle check : angular err= 0.0000
1658 Note: BS check 9183 - 9181:ZE91.0119,SD499.798,HD err=
-0.006316, VD err= -0.010756
1659 Note: BS Circle check : angular err= 0.0000
1660 Side Shot: Occupy Point: 9183
Foresight Point: 9184 Angle Right: 0.0000 Zenith
Angle: 91.0119 Slope Distance: 499.8USft Description: CHK9181
1661 Store Point: Point Name: 9185
Northing: 1143164.660811USft Easting: 617237.521844USft
Elevation: 250.973794USft Description: PT9023/B-6013
1662 Cut Sheet: Elevation: 250.973794USft
Design Grade: 0.0
1663 Design Point/Location: Point Name: 9023
Northing: 1143166.2USft Easting: 617237.0USft
Elevation: 0.0USft Description: B-6013
1664 Stakeout Deltas: Delta Northing: 1.539189USft
Delta Easting: -0.521844USft Delta Elevation: -250.973794USft
1665 Stakeout: Occupy Point: 9183
Foresight Point: 9185 Angle Right: 210.1300 Zenith
Angle: 88.4743 Slope Distance: 302.0USft Description: PT9023/B-6013
1666 Occupy Pt: Occupy Point: 9183
Northing: 1142975.592517USft Easting: 617472.929711USft
Elevation: 244.454298USft Description: NS
1667 Backsight: Occupy Point: 9183
Backsight Point: 9181 Backsight Azimuth: 98.331113 Backsight
Circle: 0.0000
1668 Note: Fixed HR at Backsight:5.08 (5.08 + 0.0 Offset),
Prism Const.:0.0mm
1669 Note: Date: 09-12-2004 Time: 04:37:28
1670 Note: BS check 9183 - 9181:ZE91.0115,SD499.804,HD err=
-0.000144, VD err= -0.001172
1671 Note: BS Circle check : angular err= 0.0000
1672 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
1673 Repeat Directional: Backsight Reverse
Set: 1 Angle: 179.5956
1674 Repeat Directional: Foresight Reverse
Set: 1 Angle: 179.5956
1675 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 268.5846
1676 Multiple Distances: Set: 1
Slope Distance: 499.8USft

1677 Repeat Foresight: Occupy Point: 9183
Foresight Point: 9186 Angle Right: 179.5956 Zenith
Angle: 268.5846 Slope Distance: 499.8USft Height of Rod: 5.08USft
Description: NS
1678 Repeat Directional: Foresight Direct
Set: 1 Angle: 359.5959
1679 Repeat Directional: Zenith Direct
Set: 1 Zenith: 91.0119
1680 Multiple Distances: Set: 1
Slope Distance: 499.798USft
1681 Repeat Foresight: Occupy Point: 9183
Foresight Point: 9186 Angle Right: 359.5959 Zenith
Angle: 91.0119 Slope Distance: 499.798USft Height of Rod: 5.08USft
Description: NS
1682 Note: Horizontal Angle Error: 0.0001
1683 Note: Zenith Angle Error: 0.0005
1684 Note: Slope Distance Error: 0.002
1685 Note: Horizontal Angle Error compares to the average:
0.0000
1686 Note: Zenith Angle Error compares to the average:
0.0000
1687 Note: Slope Distance Error compares to the average: 0.0
1688 Side Shot: Occupy Point: 9183
Foresight Point: 9186 Angle Right: 359.59595 Zenith
Angle: 91.01165 Slope Distance: 499.799USft Description: NS
1689 Note: Foresight Target:My Prism, HR:5.14 (5.14 + 0.0
Offset), Prism Const.:0.0mm
1690 Occupy Pt: Occupy Point: 9186
Northing: 1142901.272522USft Easting: 617967.091856USft
Elevation: 235.716265USft Description: NS
1691 Note: HR:5.14 (5.14 + 0.0 Offset)
1692 Line of Sight (HI/HR): Height of Instrument: 5.38USft
Height of Rod: 5.14USft
1693 Backsight: Occupy Point: 9186
Backsight Point: 9183 Backsight Azimuth: 278.331063 Backsight
Circle: 0.0000
1694 Note: Fixed HR at Backsight:5.14 (5.14 + 0.0 Offset),
Prism Const.:0.0mm
1695 Note: BS check 9186 - 9183:ZE89.0131,SD499.8,HD err=
0.008069, VD err= 0.00421
1696 Note: BS Circle check : angular err= 0.0000
1697 Side Shot: Occupy Point: 9186
Foresight Point: 9187 Angle Right: 0.0000 Zenith
Angle: 89.0131 Slope Distance: 499.796USft Description: CHK9183
1698 Note: Foresight Target:My Prism, HR:5.15 (5.15 + 0.0
Offset), Prism Const.:0.0mm
1699 Note: HR:5.15 (5.15 + 0.0 Offset)
1700 Line of Sight (HI/HR): Height of Instrument: 5.38USft
Height of Rod: 5.15USft
1701 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
1702 Repeat Directional: Backsight Reverse
Set: 1 Angle: 179.5958
1703 Repeat Directional: Foresight Reverse
Set: 1 Angle: 359.1007
1704 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 266.2346
1705 Multiple Distances: Set: 1
Slope Distance: 425.226USft
1706 Repeat Foresight: Occupy Point: 9186
Foresight Point: 9188 Angle Right: 359.1007 Zenith
Angle: 266.2346 Slope Distance: 425.226USft Height of Rod: 5.15USft
Description: NS
1707 Repeat Directional: Foresight Direct
Set: 1 Angle: 179.1007
1708 Repeat Directional: Zenith Direct
Set: 1 Zenith: 93.3614

1709 Multiple Distances: Set: 1
Slope Distance: 425.226USft
1710 Repeat Foresight: Occupy Point: 9186
Foresight Point: 9188 Angle Right: 179.1007 Zenith
Angle: 93.3614 Slope Distance: 425.226USft Height of Rod: 5.15USft
Description: NS
1711 Note: Horizontal Angle Error: 0.0002
1712 Note: Zenith Angle Error: 0.0000
1713 Note: Slope Distance Error: 0.0
1714 Note: Horizontal Angle Error compares to the average:
0.0000
1715 Note: Zenith Angle Error compares to the average:
0.0000
1716 Note: Slope Distance Error compares to the average: 0.0
1717 Side Shot: Occupy Point: 9186
Foresight Point: 9188 Angle Right: 179.1008 Zenith
Angle: 93.3614 Slope Distance: 425.226USft Description: NS
1718 Note: Foresight Target:My Prism, HR:5.06 (5.06 + 0.0
Offset), Prism Const.:0.0mm
1719 Occupy Pt: Occupy Point: 9188
Northing: 1142844.250467USft Easting: 618387.628654USft
Elevation: 209.217299USft Description: NS
1720 Note: HR:5.06 (5.06 + 0.0 Offset)
1721 Line of Sight (HI/HR): Height of Instrument: 5.07USft
Height of Rod: 5.06USft
1722 Backsight: Occupy Point: 9188
Backsight Point: 9186 Backsight Azimuth: 277.431863 Backsight
Circle: 0.0000
1723 Note: Fixed HR at Backsight:5.06 (5.06 + 0.0 Offset),
Prism Const.:0.0mm
1724 Note: BS check 9188 - 9186:ZE86.2556,SD425.198,HD err=
-0.011184, VD err= -0.02922
1725 Note: BS Circle check : angular err= 0.0000
1726 Note: BS check 9188 - 9186:ZE86.2556,SD425.202,HD err=
-0.007192, VD err= -0.028971
1727 Note: BS Circle check : angular err= 0.0000
1728 Note: BS check 9188 - 9186:ZE86.2556,SD425.202,HD err=
-0.007192, VD err= -0.028971
1729 Note: BS Circle check : angular err= 0.0000
1730 Note: BS check 9188 - 9186:ZE86.2554,SD425.204,HD err=
-0.005452, VD err= -0.024731
1731 Note: BS Circle check : angular err= 0.0000
1732 Note: Foresight Target:My Prism, HR:5.05 (5.05 + 0.0
Offset), Prism Const.:0.0mm
1733 Occupy Pt: Occupy Point: 9188
Northing: 1142844.250467USft Easting: 618387.628654USft
Elevation: 209.217299USft Description: NS
1734 Note: HR:5.05 (5.05 + 0.0 Offset)
1735 Line of Sight (HI/HR): Height of Instrument: 5.08USft
Height of Rod: 5.05USft
1736 Backsight: Occupy Point: 9188
Backsight Point: 9186 Backsight Azimuth: 277.431863 Backsight
Circle: 0.0000
1737 Note: Fixed HR at Backsight:5.05 (5.05 + 0.0 Offset),
Prism Const.:0.0mm
1738 Note: BS check 9188 - 9186:ZE86.2555,SD425.202,HD err=
-0.00732, VD err= -0.006913
1739 Note: BS Circle check : angular err= 0.0000
1740 Side Shot: Occupy Point: 9188
Foresight Point: 9189 Angle Right: 0.0000 Zenith
Angle: 86.2555 Slope Distance: 425.204USft Description: CHK9186
1741 Note: Foresight Target:My Prism, HR:4.92 (4.92 + 0.0
Offset), Prism Const.:0.0mm
1742 Note: HR:4.92 (4.92 + 0.0 Offset)
1743 Line of Sight (HI/HR): Height of Instrument: 5.08USft
Height of Rod: 4.92USft
1744 Repeat Directional: Backsight Direct

Set: 1 Angle: 0.0000
1745 Repeat Directional: Backsight Reverse
Set: 1 Angle: 179.5958
1746 Repeat Directional: Foresight Reverse
Set: 1 Angle: 330.2554
1747 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 270.5447
1748 Multiple Distances: Set: 1
Slope Distance: 256.35USft
1749 Repeat Foresight: Occupy Point: 9188
Foresight Point: 9190 Angle Right: 330.2554 Zenith
Angle: 270.5447 Slope Distance: 256.35USft Height of Rod: 4.92USft
Description: NS
1750 Repeat Directional: Foresight Direct
Set: 1 Angle: 150.2556
1751 Repeat Directional: Zenith Direct
Set: 1 Zenith: 89.0529
1752 Multiple Distances: Set: 1
Slope Distance: 256.35USft
1753 Repeat Foresight: Occupy Point: 9188
Foresight Point: 9190 Angle Right: 150.2556 Zenith
Angle: 89.0529 Slope Distance: 256.35USft Height of Rod: 4.92USft
Description: NS
1754 Note: Horizontal Angle Error: 0.0000
1755 Note: Zenith Angle Error: 0.0016
1756 Note: Slope Distance Error: 0.0
1757 Note: Horizontal Angle Error compares to the average:
0.0000
1758 Note: Zenith Angle Error compares to the average:
0.0000
1759 Note: Slope Distance Error compares to the average: 0.0
1760 Side Shot: Occupy Point: 9188
Foresight Point: 9190 Angle Right: 150.2556 Zenith
Angle: 89.0521 Slope Distance: 256.35USft Description: NS
1761 Note: Foresight Target:My Prism, HR:5.03 (5.03 + 0.0
Offset), Prism Const.:0.0mm
1762 Occupy Pt: Occupy Point: 9190
Northing: 1142939.629356USft Easting: 618625.539528USft
Elevation: 213.452334USft Description: NS
1763 Note: HR:5.03 (5.03 + 0.0 Offset)
1764 Line of Sight (HI/HR): Height of Instrument: 5.06USft
Height of Rod: 5.03USft
1765 Backsight: Occupy Point: 9190
Backsight Point: 9188 Backsight Azimuth: 248.091463 Backsight
Circle: 0.0000
1766 Note: Fixed HR at Backsight:5.03 (5.03 + 0.0 Offset),
Prism Const.:0.0mm
1767 Note: BS check 9190 - 9188:ZE90.5654,SD256.352,HD err=
-0.000722, VD err= 0.022208
1768 Note: BS Circle check : angular err= 0.0000
1769 Note: BS check 9190 - 9188:ZE90.5706,SD256.356,HD err=
0.00303, VD err= 0.00723
1770 Note: BS Circle check : angular err= 0.0000
1771 Note: Date: 09-12-2004 Time: 05:18:16
1772 Side Shot: Occupy Point: 9190
Foresight Point: 9191 Angle Right: 0.0000 Zenith
Angle: 90.5707 Slope Distance: 256.354USft Description: CHK9188
1773 Note: Foresight Target:My Prism, HR:4.95 (4.95 + 0.0
Offset), Prism Const.:0.0mm
1774 Note: HR:4.95 (4.95 + 0.0 Offset)
1775 Line of Sight (HI/HR): Height of Instrument: 5.06USft
Height of Rod: 4.95USft
1776 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
1777 Repeat Directional: Backsight Reverse
Set: 1 Angle: 179.5958
1778 Repeat Directional: Foresight Reverse

Set: 1 Angle: 331.0537
1779 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 270.4939
1780 Multiple Distances: Set: 1
Slope Distance: 578.208USft
1781 Repeat Foresight: Occupy Point: 9190
Foresight Point: 9192 Angle Right: 331.0537 Zenith
Angle: 270.4939 Slope Distance: 578.208USft Height of Rod: 4.95USft
Description: NS
1782 Repeat Directional: Foresight Direct
Set: 1 Angle: 151.0540
1783 Repeat Directional: Zenith Direct
Set: 1 Zenith: 89.1034
1784 Multiple Distances: Set: 1
Slope Distance: 578.208USft
1785 Repeat Foresight: Occupy Point: 9190
Foresight Point: 9192 Angle Right: 151.0540 Zenith
Angle: 89.1034 Slope Distance: 578.208USft Height of Rod: 4.95USft
Description: NS
1786 Note: Horizontal Angle Error: 0.0001
1787 Note: Zenith Angle Error: 0.0013
1788 Note: Slope Distance Error: 0.0
1789 Note: Horizontal Angle Error compares to the average:
0.0000
1790 Note: Zenith Angle Error compares to the average:
0.0000
1791 Note: Slope Distance Error compares to the average: 0.0
1792 Side Shot: Occupy Point: 9190
Foresight Point: 9192 Angle Right: 151.05395 Zenith
Angle: 89.10275 Slope Distance: 578.208USft Description: NS
1793 Note: Foresight Target:My Prism, HR:4.99 (4.99 + 0.0
Offset), Prism Const.:0.0mm
1794 Occupy Pt: Occupy Point: 9192
Northing: 1143387.353295USft Easting: 618991.32408USft
Elevation: 221.894651USft Description: NS
1795 Note: HR:4.99 (4.99 + 0.0 Offset)
1796 Line of Sight (HI/HR): Height of Instrument: 4.98USft
Height of Rod: 4.99USft
1797 Backsight: Occupy Point: 9192
Backsight Point: 9190 Backsight Azimuth: 219.145413 Backsight
Circle: 0.0000
1798 Note: Fixed HR at Backsight:4.99 (4.99 + 0.0 Offset),
Prism Const.:0.0mm
1799 Note: BS check 9192 - 9190:ZE90.5020,SD578.208,HD err=
-0.001934, VD err= -0.033139
1800 Note: BS Circle check : angular err= 0.0000
1801 Note: BS check 9192 - 9190:ZE90.5021,SD578.208,HD err=
-0.001975, VD err= -0.035942
1802 Note: BS Circle check : angular err= 0.0000
1803 Note: Foresight Target:My Prism, HR:4.98 (4.98 + 0.0
Offset), Prism Const.:0.0mm
1804 Occupy Pt: Occupy Point: 9192
Northing: 1143387.353295USft Easting: 618991.32408USft
Elevation: 221.894651USft Description: NS
1805 Note: HR:4.98 (4.98 + 0.0 Offset)
1806 Line of Sight (HI/HR): Height of Instrument: 4.99USft
Height of Rod: 4.98USft
1807 Backsight: Occupy Point: 9192
Backsight Point: 9190 Backsight Azimuth: 219.145413 Backsight
Circle: 0.0000
1808 Note: Fixed HR at Backsight:4.98 (4.98 + 0.0 Offset),
Prism Const.:0.0mm
1809 Note: BS check 9192 - 9190:ZE90.5023,SD578.208,HD err=
-0.002057, VD err= -0.021548
1810 Note: BS Circle check : angular err= 0.0000
1811 Side Shot: Occupy Point: 9192
Foresight Point: 9193 Angle Right: 0.0000 Zenith

Angle: 90.5023 Slope Distance: 578.208USft Description: CHK9190
1812 Note: Foresight Target:My Prism, HR:5.35 (5.35 + 0.0 Offset), Prism Const.:0.0mm
1813 Note: HR:5.35 (5.35 + 0.0 Offset)
1814 Line of Sight (HI/HR): Height of Instrument: 4.99USft Height of Rod: 5.35USft
1815 Repeat Directional: Backsight Direct Set: 1 Angle: 0.0000
1816 Repeat Directional: Backsight Reverse Set: 1 Angle: 179.5959
1817 Repeat Directional: Foresight Reverse Set: 1 Angle: 43.3225
1818 Repeat Directional: Zenith Reverse Set: 1 Zenith: 272.0704
1819 Multiple Distances: Set: 1 Slope Distance: 324.224USft
1820 Repeat Foresight: Occupy Point: 9192 Foresight Point: 9194 Angle Right: 43.3225 Zenith Angle: 272.0704 Slope Distance: 324.224USft Height of Rod: 5.35USft Description: NS
1821 Repeat Directional: Foresight Direct Set: 1 Angle: 223.3228
1822 Repeat Directional: Zenith Direct Set: 1 Zenith: 87.5309
1823 Multiple Distances: Set: 1 Slope Distance: 324.228USft
1824 Repeat Foresight: Occupy Point: 9192 Foresight Point: 9194 Angle Right: 223.3228 Zenith Angle: 87.5309 Slope Distance: 324.228USft Height of Rod: 5.35USft Description: NS
1825 Note: Horizontal Angle Error: 0.0002
1826 Note: Zenith Angle Error: 0.0013
1827 Note: Slope Distance Error: 0.004
1828 Note: Horizontal Angle Error compares to the average: 0.0000
1829 Note: Zenith Angle Error compares to the average: 0.0000
1830 Note: Slope Distance Error compares to the average: 0.0
1831 Side Shot: Occupy Point: 9192 Foresight Point: 9194 Angle Right: 223.3227 Zenith Angle: 87.53025 Slope Distance: 324.226USft Description: NS
1832 Note: Foresight Target:My Prism, HR:4.59 (4.59 + 0.0 Offset), Prism Const.:0.0mm
1833 Occupy Pt: Occupy Point: 9194 Northing: 1143428.022457USft Easting: 619312.766469USft Elevation: 233.505817USft Description: NS
1834 Note: HR:4.59 (4.59 + 0.0 Offset)
1835 Line of Sight (HI/HR): Height of Instrument: 5.37USft Height of Rod: 4.59USft
1836 Backsight: Occupy Point: 9194 Backsight Point: 9192 Backsight Azimuth: 262.472113 Backsight Circle: 0.0000
1837 Note: Fixed HR at Backsight:4.59 (4.59 + 0.0 Offset), Prism Const.:0.0mm
1838 Note: BS check 9194 - 9192:ZE92.1134,SD324.232,HD err= -0.010343, VD err= -0.01455
1839 Note: BS Circle check : angular err= 0.0000
1840 Side Shot: Occupy Point: 9194 Foresight Point: 9195 Angle Right: 0.0000 Zenith Angle: 92.1133 Slope Distance: 324.232USft Description: CHK9192
1841 Note: Foresight Target:My Prism, HR:5.34 (5.34 + 0.0 Offset), Prism Const.:0.0mm
1842 Note: HR:5.34 (5.34 + 0.0 Offset)
1843 Line of Sight (HI/HR): Height of Instrument: 5.37USft Height of Rod: 5.34USft
1844 Occupy Pt: Occupy Point: 9194 Northing: 1143428.022457USft Easting: 619312.766469USft

Elevation: 233.505817USft Description: NS
1845 Backsight: Occupy Point: 9194
Backsight Point: 9192 Backsight Azimuth: 262.472113 Backsight Circle: 0.0000
1846 Note: Fixed HR at Backsight:4.59 (4.59 + 0.0 Offset), Prism Const.:0.0mm
1847 Note: BS check 9194 - 9192:ZE92.1134,SD324.234,HD err= -0.008344, VD err= -0.014627
1848 Note: BS Circle check : angular err= 0.0000
1849 Note: RD,BD 1:0.0001
1850 Note: RD,BV 1:180.0000
1851 Note: RD,FV 1:180.0000
1852 Note: RD,ZV 1:
1853 Note: MD,SD 1:
1854 Note: RF,OP9194,FP,AR180.0000,ZE,SD,HR5.34,--
1855 Note: RD,FD 1:0.0000
1856 Note: RD,ZD 1:
1857 Note: MD,SD 1:
1858 Note: RF,OP9194,FP,AR0.0000,ZE,SD,HR5.34,--
1859 Note: Horizontal Angle Error: 0.0000
1860 Note: Zenith Angle Error: 0.0000
1861 Note: Date: 09-12-2004 Time: 05:53:39
1862 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
1863 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0000
1864 Repeat Directional: Foresight Reverse
Set: 1 Angle: 55.0019
1865 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 271.5421
1866 Multiple Distances: Set: 1
Slope Distance: 409.908USft
1867 Repeat Foresight: Occupy Point: 9194
Foresight Point: 9196 Angle Right: 55.0019 Zenith Angle: 271.5421 Slope Distance: 409.908USft Height of Rod: 5.34USft
Description: NS
1868 Repeat Directional: Foresight Direct
Set: 1 Angle: 235.0021
1869 Repeat Directional: Zenith Direct
Set: 1 Zenith: 88.0549
1870 Multiple Distances: Set: 1
Slope Distance: 409.914USft
1871 Repeat Foresight: Occupy Point: 9194
Foresight Point: 9196 Angle Right: 235.0021 Zenith Angle: 88.0549 Slope Distance: 409.914USft Height of Rod: 5.34USft
Description: NS
1872 Note: Horizontal Angle Error: 0.0002
1873 Note: Zenith Angle Error: 0.0010
1874 Note: Slope Distance Error: 0.006
1875 Note: Horizontal Angle Error compares to the average: 0.0000
1876 Note: Zenith Angle Error compares to the average: 0.0000
1877 Note: Slope Distance Error compares to the average: 0.0
1878 Side Shot: Occupy Point: 9194
Foresight Point: 9196 Angle Right: 235.0020 Zenith Angle: 88.0544 Slope Distance: 409.911USft Description: NS
1879 Store Point: Point Name: 11
Northing: 1142637.0645USft Easting: 621899.1089USft
Elevation: 218.904USft Description: #4RS
1880 Store Point: Point Name: 14
Northing: 1143261.7065USft Easting: 621997.1521USft
Elevation: 222.513USft Description: #4RS
1881 Note: Date: 09-12-2004 Time: 06:20:50
1882 Note: Date: 09-15-2004 Time: 05:57:48
1883 Note: Date: 09-15-2004 Time: 06:20:39
1884 Note: Data Collector Serial Number: FS29A13023

1885 Note: Activating Total Station: Nikon TOP GUN [Nikon], COM1, 4800 baud, no parity
1886 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
1887 Note: Date: 03-19-2007 Time: 08:19:42
1888 Note: Data Collector Serial Number: FS29A13023
1889 Note: Activating Total Station: Nikon TOP GUN [Nikon], COM1, 4800 baud, no parity
1890 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
1891 Note: Date: 03-19-2007 Time: 08:28:49
1892 Note: Data Collector Serial Number: FS29A13023
1893 Note: Activating Total Station: Nikon TOP GUN [Nikon], COM1, 4800 baud, no parity
1894 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
1895 Note: Date: 03-19-2007 Time: 10:30:20
1896 Note: Data Collector Serial Number: FS29A13023
1897 Note: Activating Total Station: Nikon TOP GUN [Nikon], COM1, 4800 baud, no parity
1898 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
1899 Note: Date: 03-19-2007 Time: 11:04:45
1900 Note: Data Collector Serial Number: FS29A13023
1901 Note: Activating Total Station: Nikon TOP GUN [Nikon], COM1, 4800 baud, no parity
1902 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
1903 Note: Date: 03-19-2007 Time: 11:11:41
1904 Note: Data Collector Serial Number: FS29A13023
1905 Note: Activating Total Station: Nikon TOP GUN [Nikon], COM1, 4800 baud, no parity
1906 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
1907 Note: Date: 03-19-2007 Time: 11:18:28
1908 Note: Date: 03-19-2007 Time: 11:33:39
1909 Store Point: Point Name: 138
Northing: 1141751.738USft Easting: 621609.113USft
Elevation: 222.427USft Description: NS
1910 Store Point: Point Name: 139
Northing: 1141590.457USft Easting: 621869.605USft
Elevation: 222.95USft Description: NS
1911 Store Point: Point Name: 146
Northing: 1143007.533USft Easting: 621001.779USft
Elevation: 221.616USft Description: NS
1912 Store Point: Point Name: 172
Northing: 1144830.997USft Easting: 621990.458USft
Elevation: 238.886USft Description: NS
1913 Store Point: Point Name: 174
Northing: 1144346.12USft Easting: 622018.031USft
Elevation: 273.506USft Description: NS
1914 Store Point: Point Name: 178
Northing: 1144354.112USft Easting: 621822.116USft
Elevation: 282.445USft Description: NS
1915 Store Point: Point Name: 180
Northing: 1144184.012USft Easting: 621523.241USft
Elevation: 276.493USft Description: NS
1916 Store Point: Point Name: 183
Northing: 1144136.094USft Easting: 621271.785USft
Elevation: 271.894USft Description: NS
1917 Store Point: Point Name: 184
Northing: 1144064.615USft Easting: 620895.169USft
Elevation: 265.813USft Description: NS
1918 Store Point: Point Name: 190
Northing: 1144011.645USft Easting: 620527.581USft
Elevation: 265.239USft Description: NS
1919 Note: Date: 03-19-2007 Time: 11:48:43

1920 Note: Foresight Target:My Prism, HR:5.15 (5.15 + 0.0 Offset), Prism Const.:0.0mm
1921 Occupy Pt: Occupy Point: 139
Northing: 1141590.457USft Easting: 621869.605USft
Elevation: 222.95USft Description: NS
1922 Note: HR:5.15 (5.15 + 0.0 Offset)
1923 Line of Sight (HI/HR): Height of Instrument: 5.14USft
Height of Rod: 5.15USft
1924 Backsight: Occupy Point: 139
Backsight Point: 9 Backsight Azimuth: 11.401267 Backsight Circle: 0.0000
1925 Note: Fixed HR at Backsight:5.15 (5.15 + 0.0 Offset), Prism Const.:0.0mm
1926 Note: BS check 139 - 9:ZE90.3025,SD452.884,HD err= -0.02051, VD err= -0.346597
1927 Note: BS Circle check : angular err= 0.0000
1928 Occupy Pt: Occupy Point: 139
Northing: 1141590.457USft Easting: 621869.605USft
Elevation: 222.95USft Description: NS
1929 Backsight: Occupy Point: 139
Backsight Point: 10 Backsight Azimuth: 61.503217 Backsight Circle: 0.0000
1930 Note: Fixed HR at Backsight:5.15 (5.15 + 0.0 Offset), Prism Const.:0.0mm
1931 Store Point: Point Name: 9
Northing: 1142033.9818USft Easting: 621961.2139USft
Elevation: 218.933USft Description: PKNS
1932 Occupy Pt: Occupy Point: 139
Northing: 1141590.457USft Easting: 621869.605USft
Elevation: 222.95USft Description: NS
1933 Backsight: Occupy Point: 139
Backsight Point: 9 Backsight Azimuth: 11.401267 Backsight Circle: 0.0000
1934 Note: Fixed HR at Backsight:5.15 (5.15 + 0.0 Offset), Prism Const.:0.0mm
1935 Note: BS check 139 - 9:ZE90.3025,SD452.876,HD err= -0.02851, VD err= 0.000074
1936 Note: BS Circle check : angular err= 0.0000
1937 Side Shot: Occupy Point: 139
Foresight Point: 220 Angle Right: 0.0000 Zenith Angle: 90.3026 Slope Distance: 452.882USft Description: CHK9
1938 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
1939 Note: HR:4.97 (4.97 + 0.0 Offset)
1940 Line of Sight (HI/HR): Height of Instrument: 5.14USft
Height of Rod: 4.97USft
1941 Side Shot: Occupy Point: 139
Foresight Point: 221 Angle Right: 188.3900 Zenith Angle: 90.2254 Slope Distance: 460.97USft Description: B-3032
1942 Side Shot: Occupy Point: 139
Foresight Point: 222 Angle Right: 181.4540 Zenith Angle: 90.1909 Slope Distance: 332.672USft Description: C-3005
1943 Side Shot: Occupy Point: 139
Foresight Point: 223 Angle Right: 208.0852 Zenith Angle: 90.1218 Slope Distance: 241.114USft Description: B-3033
1944 Note: Date: 03-19-2007 Time: 12:03:47
1945 Side Shot: Occupy Point: 139
Foresight Point: 224 Angle Right: 220.2633 Zenith Angle: 89.5411 Slope Distance: 78.906USft Description: C-3004
1946 Side Shot: Occupy Point: 139
Foresight Point: 225 Angle Right: 155.0153 Zenith Angle: 89.3249 Slope Distance: 195.954USft Description: B-3034
1947 Note: Foresight Target:My Prism, HR:5.15 (5.15 + 0.0 Offset), Prism Const.:0.0mm
1948 Note: HR:5.15 (5.15 + 0.0 Offset)
1949 Line of Sight (HI/HR): Height of Instrument: 5.14USft
Height of Rod: 5.15USft

1950 Side Shot: Occupy Point: 139
Foresight Point: 226 Angle Right: 359.5958 Zenith
Angle: 90.3024 Slope Distance: 452.878USft Description: CHK9
1951 Occupy Pt: Occupy Point: 138
Northing: 1141751.738USft Easting: 621609.113USft
Elevation: 222.427USft Description: NS
1952 Note: HR:5.15 (5.15 + 0.0 Offset)
1953 Line of Sight (HI/HR): Height of Instrument: 5.25USft
Height of Rod: 5.15USft
1954 Backsight: Occupy Point: 138
Backsight Point: 9 Backsight Azimuth: 51.170371 Backsight
Circle: 0.0000
1955 Note: Fixed HR at Backsight:5.15 (5.15 + 0.0 Offset),
Prism Const.:0.0mm
1956 Note: BS check 138 - 9:ZE90.2729,SD451.25,HD err= -
0.025549, VD err= -0.013515
1957 Note: BS Circle check : angular err= 0.0000
1958 Side Shot: Occupy Point: 138
Foresight Point: 227 Angle Right: 0.0000 Zenith
Angle: 90.2729 Slope Distance: 451.25USft Description: CHK9
1959 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
1960 Note: HR:4.97 (4.97 + 0.0 Offset)
1961 Line of Sight (HI/HR): Height of Instrument: 5.25USft
Height of Rod: 4.97USft
1962 Side Shot: Occupy Point: 138
Foresight Point: 228 Angle Right: 53.5519 Zenith
Angle: 90.1224 Slope Distance: 197.472USft Description: B-3030ALT
1963 Side Shot: Occupy Point: 138
Foresight Point: 229 Angle Right: 32.4607 Zenith
Angle: 90.2329 Slope Distance: 193.558USft Description: C-3003
1964 Side Shot: Occupy Point: 138
Foresight Point: 230 Angle Right: 5.0231 Zenith
Angle: 90.3754 Slope Distance: 234.054USft Description: B-3029
1965 Side Shot: Occupy Point: 138
Foresight Point: 231 Angle Right: 282.0145 Zenith
Angle: 90.4541 Slope Distance: 146.892USft Description: B-3038
1966 Note: Date: 03-19-2007 Time: 12:25:21
1967 Side Shot: Occupy Point: 138
Foresight Point: 232 Angle Right: 248.4132 Zenith
Angle: 90.3824 Slope Distance: 231.312USft Description: B-3028ALT
1968 Side Shot: Occupy Point: 138
Foresight Point: 233 Angle Right: 277.3117 Zenith
Angle: 90.3727 Slope Distance: 358.852USft Description: B-3027ALT
1969 Note: Date: 03-19-2007 Time: 12:43:40
1970 Occupy Pt: Occupy Point: 138
Northing: 1141751.738USft Easting: 621609.113USft
Elevation: 222.427USft Description: NS
1971 Backsight: Occupy Point: 138
Backsight Point: 9 Backsight Azimuth: 51.170371 Backsight
Circle: 0.0000
1972 Note: Fixed HR at Backsight:5.15 (5.15 + 0.0 Offset),
Prism Const.:0.0mm
1973 Note: BS check 138 - 9:ZE90.2738,SD451.25,HD err= -
0.025707, VD err= -0.033204
1974 Note: BS Circle check : angular err= 0.0000
1975 Note: BS check 138 - 9:ZE90.2736,SD451.25,HD err= -
0.025672, VD err= -0.028828
1976 Note: BS Circle check : angular err= 0.0000
1977 Note: Foresight Target:My Prism, HR:5.16 (5.16 + 0.0
Offset), Prism Const.:0.0mm
1978 Occupy Pt: Occupy Point: 138
Northing: 1141751.738USft Easting: 621609.113USft
Elevation: 222.427USft Description: NS
1979 Note: HR:5.16 (5.16 + 0.0 Offset)
1980 Line of Sight (HI/HR): Height of Instrument: 5.25USft
Height of Rod: 5.16USft

1981 Backsight: Occupy Point: 138
Backsight Point: 9 Backsight Azimuth: 51.170371 Backsight Circle: 0.0000
1982 Note: Fixed HR at Backsight:5.15 (5.15 + 0.0 Offset), Prism Const.:0.0mm
1983 Note: BS check 138 - 9:ZE90.2735,SD451.244,HD err= -0.031654, VD err= -0.026592
1984 Note: BS Circle check : angular err= 0.0000
1985 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
1986 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0005
1987 Repeat Directional: Foresight Reverse
Set: 1 Angle: 39.0302
1988 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 269.5715
1989 Multiple Distances: Set: 1
Slope Distance: 924.502USft
1990 Repeat Foresight: Occupy Point: 138
Foresight Point: 234 Angle Right: 39.0302 Zenith Angle: 269.5715 Slope Distance: 924.502USft Height of Rod: 5.16USft
Description: NS
1991 Repeat Directional: Foresight Direct
Set: 1 Angle: 219.0300
1992 Repeat Directional: Zenith Direct
Set: 1 Zenith: 90.0254
1993 Multiple Distances: Set: 1
Slope Distance: 924.518USft
1994 Repeat Foresight: Occupy Point: 138
Foresight Point: 234 Angle Right: 219.0300 Zenith Angle: 90.0254 Slope Distance: 924.518USft Height of Rod: 5.16USft
Description: NS
1995 Note: Horizontal Angle Error: 0.0003
1996 Note: Zenith Angle Error: 0.0009
1997 Note: Slope Distance Error: 0.016
1998 Note: Horizontal Angle Error compares to the average: 0.0000
1999 Note: Zenith Angle Error compares to the average: 0.0000
2000 Note: Slope Distance Error compares to the average: 0.0
2001 Side Shot: Occupy Point: 138
Foresight Point: 234 Angle Right: 219.02585 Zenith Angle: 90.02495 Slope Distance: 924.51USft Description: NS
2002 Occupy Pt: Occupy Point: 234
Northing: 1141757.126471USft Easting: 620684.619016USft
Elevation: 221.757275USft Description: NS
2003 Note: HR:5.16 (5.16 + 0.0 Offset)
2004 Line of Sight (HI/HR): Height of Instrument: 0.0USft
Height of Rod: 5.16USft
2005 Backsight: Occupy Point: 234
Backsight Point: 138 Backsight Azimuth: 90.200221 Backsight Circle: 0.0000
2006 Note: Fixed HR at Backsight:5.16 (5.16 + 0.0 Offset), Prism Const.:0.0mm
2007 Note: BS check 234 - 138:ZE89.5815,SD924.502,HD err= -0.007808, VD err= -5.359103
2008 Note: BS Circle check : angular err= 0.0000
2009 Occupy Pt: Occupy Point: 234
Northing: 1141757.126471USft Easting: 620684.619016USft
Elevation: 221.757275USft Description: NS
2010 Note: HR:5.16 (5.16 + 0.0 Offset)
2011 Line of Sight (HI/HR): Height of Instrument: 5.36USft
Height of Rod: 5.16USft
2012 Backsight: Occupy Point: 234
Backsight Point: 138 Backsight Azimuth: 90.200221 Backsight Circle: 0.0000
2013 Note: Fixed HR at Backsight:5.16 (5.16 + 0.0 Offset),

Prism Const.:0.0mm
2014 Note: BS check 234 - 138:ZE89.5815,SD924.504,HD err= -0.005808, VD err= 0.000898
2015 Note: BS Circle check : angular err= 0.0000
2016 Occupy Pt: Occupy Point: 234
Northing: 1141757.126471USft Easting: 620684.619016USft
Elevation: 221.757275USft Description: NS
2017 Note: HR:5.16 (5.16 + 0.0 Offset)
2018 Line of Sight (HI/HR): Height of Instrument: 5.29USft
Height of Rod: 5.16USft
2019 Backsight: Occupy Point: 234
Backsight Point: 138 Backsight Azimuth: 90.200221 Backsight Circle: 0.0000
2020 Note: Fixed HR at Backsight:5.16 (5.16 + 0.0 Offset), Prism Const.:0.0mm
2021 Note: BS check 234 - 138:ZE89.5811,SD924.514,HD err= 0.004183, VD err= -0.051168
2022 Note: BS Circle check : angular err= 0.0000
2023 Note: BS check 234 - 138:ZE89.5811,SD924.51,HD err= 0.000183, VD err= -0.05117
2024 Note: BS Circle check : angular err= 0.0000
2025 Note: Date: 03-19-2007 Time: 13:08:08
2026 Remote Elevation: Occupy Point: 234
Foresight Elevation: 222.427USft Zenith Angle: 89.5810 Slope Distance: 924.5USft Description: Remote elev
2027 Store Point: Point Name: 234
Northing: 1141757.126471USft Easting: 620684.619016USft
Elevation: 221.803969USft Description: NS
2028 Occupy Pt: Occupy Point: 234
Northing: 1141757.126471USft Easting: 620684.619016USft
Elevation: 221.803969USft Description: NS
2029 Backsight: Occupy Point: 234
Backsight Point: 138 Backsight Azimuth: 90.200221 Backsight Circle: 0.0000
2030 Note: Fixed HR at Backsight:5.16 (5.16 + 0.0 Offset), Prism Const.:0.0mm
2031 Note: BS check 234 - 138:ZE89.5809,SD924.51,HD err= 0.000178, VD err= 0.004487
2032 Note: BS Circle check : angular err= 0.0000
2033 Side Shot: Occupy Point: 234
Foresight Point: 235 Angle Right: 0.0000 Zenith Angle: 89.5809 Slope Distance: 924.508USft Description: CHK138
2034 Store Point: Point Name: 127
Northing: 1142587.892USft Easting: 621125.933USft
Elevation: 218.695USft Description: NS
2035 Note: Foresight Target:My Prism, HR:8.5 (8.5 + 0.0 Offset), Prism Const.:0.0mm
2036 Note: HR:8.5 (8.5 + 0.0 Offset)
2037 Line of Sight (HI/HR): Height of Instrument: 5.29USft
Height of Rod: 8.5USft
2038 Store Point: Point Name: 236
Northing: 1142587.848022USft Easting: 621125.873256USft
Elevation: 218.689736USft Description: CHK127
2039 Cut Sheet: Elevation: 218.689736USft
Design Grade: 218.695
2040 Design Point/Location: Point Name: 127
Northing: 1142587.892USft Easting: 621125.933USft
Elevation: 218.695USft Description: NS
2041 Stakeout Deltas: Delta Northing: 0.043978USft
Delta Easting: 0.059744USft Delta Elevation: 0.005264USft
2042 Stakeout: Occupy Point: 234
Foresight Point: 236 Angle Right: 297.3831 Zenith Angle: 89.5939 Slope Distance: 940.64USft Description: CHK127
2043 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
2044 Note: Foresight Target:My Prism, HR:5.04 (5.04 + 0.0 Offset), Prism Const.:0.0mm

2045 Note: HR:5.04 (5.04 + 0.0 Offset)
2046 Line of Sight (HI/HR): Height of Instrument: 5.29USft
Height of Rod: 5.04USft
2047 Off Center Shot: Angle Right: 80.1011
Zenith Angle: 89.4724 Slope Distance: 81.63USft
2048 Off Center Shot: Left/Right Offset: -0.4USft
Description: Left / Right Offset
2049 Side Shot: Occupy Point: 234
Foresight Point: 237 Angle Right: 79.532027 Zenith
Angle: 89.472401 Slope Distance: 81.63098USft Description: B-4030
2050 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
2051 Note: Date: 03-19-2007 Time: 13:23:12
2052 Note: Foresight Target:My Prism, HR:5.02 (5.02 + 0.0
Offset), Prism Const.:0.0mm
2053 Note: HR:5.02 (5.02 + 0.0 Offset)
2054 Line of Sight (HI/HR): Height of Instrument: 5.29USft
Height of Rod: 5.02USft
2055 Side Shot: Occupy Point: 234
Foresight Point: 238 Angle Right: 310.3612 Zenith
Angle: 91.2621 Slope Distance: 36.428USft Description: C-4003
2056 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
2057 Note: HR:4.97 (4.97 + 0.0 Offset)
2058 Line of Sight (HI/HR): Height of Instrument: 5.29USft
Height of Rod: 4.97USft
2059 Side Shot: Occupy Point: 234
Foresight Point: 239 Angle Right: 277.0507 Zenith
Angle: 90.5322 Slope Distance: 118.728USft Description: B-4029
2060 Side Shot: Occupy Point: 234
Foresight Point: 240 Angle Right: 246.3359 Zenith
Angle: 90.3532 Slope Distance: 246.876USft Description: B-4028
2061 Side Shot: Occupy Point: 234
Foresight Point: 241 Angle Right: 111.4625 Zenith
Angle: 90.3143 Slope Distance: 231.056USft Description: C-4004
2062 Note: Foresight Target:My Prism, HR:8.5 (8.5 + 0.0
Offset), Prism Const.:0.0mm
2063 Note: HR:8.5 (8.5 + 0.0 Offset)
2064 Line of Sight (HI/HR): Height of Instrument: 5.29USft
Height of Rod: 8.5USft
2065 Side Shot: Occupy Point: 234
Foresight Point: 242 Angle Right: 99.4800 Zenith
Angle: 89.5035 Slope Distance: 515.264USft Description: C-4005
2066 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
2067 Note: HR:4.97 (4.97 + 0.0 Offset)
2068 Line of Sight (HI/HR): Height of Instrument: 5.29USft
Height of Rod: 4.97USft
2069 Side Shot: Occupy Point: 234
Foresight Point: 243 Angle Right: 262.4601 Zenith
Angle: 90.3527 Slope Distance: 426.026USft Description: B-4027
2070 Note: Date: 03-19-2007 Time: 13:38:16
2071 Note: Foresight Target:My Prism, HR:8.5 (8.5 + 0.0
Offset), Prism Const.:0.0mm
2072 Note: HR:8.5 (8.5 + 0.0 Offset)
2073 Line of Sight (HI/HR): Height of Instrument: 5.29USft
Height of Rod: 8.5USft
2074 Side Shot: Occupy Point: 234
Foresight Point: 244 Angle Right: 261.0234 Zenith
Angle: 89.4231 Slope Distance: 579.59USft Description: B-4026
2075 Note: Foresight Target:My Prism, HR:5.16 (5.16 + 0.0
Offset), Prism Const.:0.0mm
2076 Note: HR:5.16 (5.16 + 0.0 Offset)
2077 Line of Sight (HI/HR): Height of Instrument: 5.29USft
Height of Rod: 5.16USft
2078 Side Shot: Occupy Point: 234
Foresight Point: 245 Angle Right: 359.5956 Zenith

Angle: 89.5815 Slope Distance: 924.506USft Description: CHK138
2079 Note: Foresight Target:My Prism, HR:5.1 (5.1 + 0.0 Offset), Prism Const.:0.0mm
2080 Occupy Pt: Occupy Point: 127
Northing: 1142587.892USft Easting: 621125.933USft
Elevation: 218.695USft Description: NS
2081 Note: HR:5.1 (5.1 + 0.0 Offset)
2082 Line of Sight (HI/HR): Height of Instrument: 5.18USft
Height of Rod: 5.1USft
2083 Backsight: Occupy Point: 127
Backsight Point: 11 Backsight Azimuth: 86.21396 Backsight Circle: 0.0000
2084 Note: Fixed HR at Backsight:5.1 (5.1 + 0.0 Offset), Prism Const.:0.0mm
2085 Note: BS check 127 - 11:ZE89.5926,SD774.714,HD err= -0.023971, VD err= -0.001299
2086 Note: BS Circle check : angular err= 0.0000
2087 Side Shot: Occupy Point: 127
Foresight Point: 246 Angle Right: 0.0000 Zenith Angle: 89.5926 Slope Distance: 774.714USft Description: CHK11
2088 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
2089 Note: HR:4.97 (4.97 + 0.0 Offset)
2090 Line of Sight (HI/HR): Height of Instrument: 5.18USft
Height of Rod: 4.97USft
2091 Side Shot: Occupy Point: 127
Foresight Point: 247 Angle Right: 76.4435 Zenith Angle: 90.3209 Slope Distance: 106.404USft Description: B-4009
2092 Off Center Shot: Angle Right: 93.3057
Zenith Angle: 90.2118 Slope Distance: 161.706USft
2093 Off Center Shot: Left/Right Offset: 1.0USft
Description: Left / Right Offset
2094 Side Shot: Occupy Point: 127
Foresight Point: 248 Angle Right: 93.521256 Zenith Angle: 90.211798 Slope Distance: 161.709092USft Description: B-4007
2095 Side Shot: Occupy Point: 127
Foresight Point: 249 Angle Right: 112.0209 Zenith Angle: 90.2420 Slope Distance: 314.094USft Description: B-1139
2096 Off Center Shot: Angle Right: 136.2650
Zenith Angle: 90.1240 Slope Distance: 223.47USft
2097 Off Center Shot: Left/Right Offset: 0.4USft
Description: Left / Right Offset
2098 Side Shot: Occupy Point: 127
Foresight Point: 250 Angle Right: 136.325921 Zenith Angle: 90.1240 Slope Distance: 223.470358USft Description: B-4008
2099 Note: Date: 03-19-2007 Time: 14:30:44
2100 Side Shot: Occupy Point: 127
Foresight Point: 251 Angle Right: 125.2358 Zenith Angle: 90.1016 Slope Distance: 150.788USft Description: B-4004
2101 Off Center Shot: Angle Right: 197.3442
Zenith Angle: 89.5012 Slope Distance: 55.096USft
2102 Off Center Shot: Left/Right Offset: -1.0USft
Description: Left / Right Offset
2103 Side Shot: Occupy Point: 127
Foresight Point: 252 Angle Right: 196.321866 Zenith Angle: 89.50121 Slope Distance: 55.105074USft Description: B-4002
2104 Side Shot: Occupy Point: 127
Foresight Point: 253 Angle Right: 194.3647 Zenith Angle: 89.5036 Slope Distance: 63.274USft Description: B-4002
2105 Off Center Shot: Angle Right: 189.3103
Zenith Angle: 90.0040 Slope Distance: 126.264USft
2106 Off Center Shot: Left/Right Offset: -1.3USft
Description: Left / Right Offset
2107 Side Shot: Occupy Point: 127
Foresight Point: 254 Angle Right: 188.55394 Zenith Angle: 90.0040 Slope Distance: 126.270692USft Description: B-4001
2108 Off Center Shot: Angle Right: 187.1639

Zenith Angle: 89.5831 Slope Distance: 199.17USft
2109 Off Center Shot: Left/Right Offset: -0.6USft
Description: Left / Right Offset
2110 Side Shot: Occupy Point: 127
Foresight Point: 255 Angle Right: 187.061763 Zenith
Angle: 89.5831 Slope Distance: 199.170904USft Description: B-4003
2111 Side Shot: Occupy Point: 127
Foresight Point: 256 Angle Right: 186.5640 Zenith
Angle: 90.0039 Slope Distance: 207.768USft Description: B-4001
2112 Store Point: Point Name: 253
Northing: 1142599.937077USft Easting: 621063.816293USft
Elevation: 219.078013USft Description: C-4002
2113 Store Point: Point Name: 256
Northing: 1142599.871671USft Easting: 620918.510658USft
Elevation: 218.865716USft Description: C-4001
2114 Side Shot: Occupy Point: 127
Foresight Point: 257 Angle Right: 174.4803 Zenith
Angle: 89.4710 Slope Distance: 506.922USft Description: B-4025
2115 Side Shot: Occupy Point: 127
Foresight Point: 258 Angle Right: 156.0044 Zenith
Angle: 90.1029 Slope Distance: 281.816USft Description: B-4036
2116 Note: Date: 03-19-2007 Time: 14:48:47
2117 Note: Date: 03-19-2007 Time: 15:04:20
2118 Note: Data Collector Serial Number: FS29A13023
2119 Note: Activating Total Station: Nikon TOP GUN [Nikon],
COM1, 4800 baud, no parity
2120 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
2121 Note: Date: 03-19-2007 Time: 15:07:34
2122 Store Point: Point Name: 3
Northing: 1142145.827458USft Easting: 623411.976968USft
Elevation: 217.609USft Description: NS
2123 Store Point: Point Name: 16
Northing: 1143915.652023USft Easting: 622548.992082USft
Elevation: 227.605USft Description: #4RS
2124 Store Point: Point Name: 18
Northing: 1144622.923533USft Easting: 622463.319738USft
Elevation: 225.711USft Description: #4RS
2125 Store Point: Point Name: 25
Northing: 1145943.143416USft Easting: 623027.630253USft
Elevation: 225.046USft Description: #4RS
2126 Store Point: Point Name: 27
Northing: 1146436.112429USft Easting: 623753.940518USft
Elevation: 252.762USft Description: #4RS
2127 Store Point: Point Name: 31
Northing: 1146254.522927USft Easting: 624077.098591USft
Elevation: 234.660538USft Description: #4RS
2128 Store Point: Point Name: 47
Northing: 1146777.088277USft Easting: 624448.979567USft
Elevation: 225.215USft Description: PT8006
2129 Store Point: Point Name: 49
Northing: 1146958.879421USft Easting: 624663.71069USft
Elevation: 224.622USft Description: #4RS
2130 Store Point: Point Name: 55
Northing: 1147209.558027USft Easting: 625062.184205USft
Elevation: 87.000934USft Description: B-1157
2131 Store Point: Point Name: 56
Northing: 1147170.57877USft Easting: 624938.821956USft
Elevation: 86.231014USft Description: B-1163
2132 Store Point: Point Name: 57
Northing: 1147234.910916USft Easting: 624815.030389USft
Elevation: 85.828875USft Description: B-1162
2133 Store Point: Point Name: 58
Northing: 1147390.34155USft Easting: 624936.423073USft
Elevation: 85.225444USft Description: B-1155
2134 Store Point: Point Name: 62
Northing: 1147285.778541USft Easting: 624954.507753USft

Elevation: 88.98274USft Description: B-1159
2135 Store Point: Point Name: 63
Northing: 1147363.365599USft Easting: 624862.14359USft
Elevation: 86.381431USft Description: B-1161
2136 Store Point: Point Name: 64
Northing: 1147302.497489USft Easting: 624571.690622USft
Elevation: 85.981395USft Description: B-1156
2137 Store Point: Point Name: 70
Northing: 1145923.840754USft Easting: 622542.258441USft
Elevation: 229.100961USft Description: NS
2138 Store Point: Point Name: 85
Northing: 1147644.595972USft Easting: 623507.073409USft
Elevation: 206.028USft Description: #4RS
2139 Store Point: Point Name: 87
Northing: 1147218.618661USft Easting: 623418.29629USft
Elevation: 243.19USft Description: #4RS
2140 Store Point: Point Name: 97
Northing: 1147589.674902USft Easting: 623746.040102USft
Elevation: 204.0184USft Description: NS
2141 Store Point: Point Name: 99
Northing: 1147452.000771USft Easting: 623960.604861USft
Elevation: 203.926094USft Description: B-1166ALT
2142 Store Point: Point Name: 101
Northing: 1147728.540024USft Easting: 622995.769792USft
Elevation: 198.421424USft Description: NS
2143 Store Point: Point Name: 103
Northing: 1147554.052416USft Easting: 622478.488412USft
Elevation: 222.662545USft Description: NS
2144 Store Point: Point Name: 105
Northing: 1147574.31775USft Easting: 622481.274089USft
Elevation: 221.109671USft Description: B-1195
2145 Store Point: Point Name: 106
Northing: 1147362.788633USft Easting: 622146.81958USft
Elevation: 221.2101USft Description: NS
2146 Store Point: Point Name: 108
Northing: 1147286.605054USft Easting: 622013.905967USft
Elevation: 217.620871USft Description: B-1196
2147 Store Point: Point Name: 109
Northing: 1146872.883614USft Easting: 622002.097987USft
Elevation: 246.047636USft Description: B-1197
2148 Store Point: Point Name: 110
Northing: 1147505.195693USft Easting: 621631.610759USft
Elevation: 199.576907USft Description: B-1194
2149 Store Point: Point Name: 112
Northing: 1147039.33USft Easting: 624487.08USft
Elevation: 199.576907USft Description: B-1164
2150 Store Point: Point Name: 114
Northing: 1144716.640015USft Easting: 622232.172309USft
Elevation: 226.778USft Description: B-1185
2151 Store Point: Point Name: 116
Northing: 1143567.675621USft Easting: 621980.428384USft
Elevation: 219.877718USft Description: B-1126
2152 Store Point: Point Name: 117
Northing: 1143278.22136USft Easting: 621893.740121USft
Elevation: 221.844871USft Description: B-1129
2153 Store Point: Point Name: 118
Northing: 1142978.4173USft Easting: 621913.426089USft
Elevation: 222.476419USft Description: B-3016
2154 Store Point: Point Name: 119
Northing: 1142772.525053USft Easting: 621911.914098USft
Elevation: 220.403592USft Description: B-3012
2155 Store Point: Point Name: 120
Northing: 1143069.839769USft Easting: 621873.431225USft
Elevation: 223.857157USft Description: B-3022
2156 Store Point: Point Name: 122
Northing: 1142425.581631USft Easting: 621924.989274USft
Elevation: 217.590576USft Description: B-3006

2157 Store Point: Point Name: 123
Northing: 1142484.482547USft Easting: 621956.580965USft
Elevation: 217.849527USft Description: B-3009
2158 Store Point: Point Name: 124
Northing: 1142599.850226USft Easting: 621727.302231USft
Elevation: 218.29162USft Description: B-3003
2159 Store Point: Point Name: 125
Northing: 1142599.50098USft Easting: 621799.643677USft
Elevation: 218.39872USft Description: B-3001
2160 Store Point: Point Name: 126
Northing: 1142599.968356USft Easting: 621872.487119USft
Elevation: 218.893839USft Description: B-3002
2161 Store Point: Point Name: 129
Northing: 1142719.627575USft Easting: 621076.362654USft
Elevation: 220.984823USft Description: B-4006
2162 Store Point: Point Name: 130
Northing: 1142600.098251USft Easting: 620926.938021USft
Elevation: 218.791247USft Description: B-4003
2163 Store Point: Point Name: 131
Northing: 1142599.968798USft Easting: 620999.866838USft
Elevation: 218.801801USft Description: B-4001
2164 Store Point: Point Name: 132
Northing: 1142600.245889USft Easting: 621072.184713USft
Elevation: 218.953576USft Description: B-4002
2165 Store Point: Point Name: 133
Northing: 1142459.275539USft Easting: 621046.260379USft
Elevation: 218.371166USft Description: B-4004
2166 Store Point: Point Name: 135
Northing: 1142425.34871USft Easting: 621773.01159USft
Elevation: 217.856589USft Description: B-3008
2167 Store Point: Point Name: 136
Northing: 1142441.546597USft Easting: 621675.959493USft
Elevation: 217.868876USft Description: B-3036
2168 Store Point: Point Name: 137
Northing: 1142290.162222USft Easting: 621823.557032USft
Elevation: 216.577562USft Description: B-1140
2169 Store Point: Point Name: 141
Northing: 1141883.043678USft Easting: 621543.125237USft
Elevation: 220.731173USft Description: B-3038
2170 Store Point: Point Name: 143
Northing: 1141158.034451USft Easting: 621709.188875USft
Elevation: 219.961171USft Description: B-3032/ALT
2171 Store Point: Point Name: 148
Northing: 1143092.609445USft Easting: 621247.37948USft
Elevation: 224.554499USft Description: B-4021
2172 Store Point: Point Name: 149
Northing: 1142996.386411USft Easting: 621112.900839USft
Elevation: 221.227006USft Description: B-4016
2173 Store Point: Point Name: 150
Northing: 1143081.303218USft Easting: 621073.521593USft
Elevation: 220.705046USft Description: B-
2174 Store Point: Point Name: 151
Northing: 1143062.3594USft Easting: 620879.811125USft
Elevation: 220.710371USft Description: B-
2175 Store Point: Point Name: 152
Northing: 1142904.783174USft Easting: 620601.811987USft
Elevation: 223.803539USft Description: B-4024
2176 Store Point: Point Name: 154
Northing: 1142776.678995USft Easting: 622024.862312USft
Elevation: 220.565562USft Description: B-
2177 Store Point: Point Name: 156
Northing: 1142718.500412USft Easting: 621876.73514USft
Elevation: 220.77623USft Description: B-3007
2178 Store Point: Point Name: 157
Northing: 1143007.522639USft Easting: 621001.781469USft
Elevation: 221.619192USft Description: CHK146
2179 Store Point: Point Name: 158

Northing: 1142457.032763USft Easting: 620875.983582USft
Elevation: 218.058051USft Description: B-4036
2180 Store Point: Point Name: 161
Northing: 1145876.26896USft Easting: 622195.209771USft
Elevation: 221.478688USft Description: B-1176
2181 Store Point: Point Name: 162
Northing: 1145878.819784USft Easting: 622196.795509USft
Elevation: 221.508149USft Description: B-1176/ALT
2182 Store Point: Point Name: 163
Northing: 1145428.360632USft Easting: 622272.080776USft
Elevation: 240.043652USft Description: B-1146
2183 Store Point: Point Name: 167
Northing: 1144213.143765USft Easting: 622574.006741USft
Elevation: 226.930781USft Description: STAKEB-1112
2184 Store Point: Point Name: 170
Northing: 1143893.238254USft Easting: 622573.846267USft
Elevation: 224.527902USft Description: STKB-1120/ALT
2185 Store Point: Point Name: 194
Northing: 1145469.620154USft Easting: 624087.485354USft
Elevation: 185.226676USft Description: NS
2186 Store Point: Point Name: 197
Northing: 1145546.989539USft Easting: 624715.496972USft
Elevation: 140.158579USft Description: NS
2187 Store Point: Point Name: 200
Northing: 1145585.773873USft Easting: 625441.148416USft
Elevation: 110.204879USft Description: NS
2188 Store Point: Point Name: 203
Northing: 1145494.512061USft Easting: 626284.058583USft
Elevation: 94.586207USft Description: NS
2189 Note: Coordinates imported from 03-19-07.txt as US Survey Feet
2190 Note: Foresight Target:My Prism, HR:5.1 (5.1 + 0.0 Offset), Prism Const.:0.0mm
2191 Occupy Pt: Occupy Point: 127
Northing: 1142587.892USft Easting: 621125.933USft
Elevation: 218.695USft Description: NS
2192 Note: HR:5.1 (5.1 + 0.0 Offset)
2193 Line of Sight (HI/HR): Height of Instrument: 5.18USft Height of Rod: 5.1USft
2194 Backsight: Occupy Point: 127
Backsight Point: 11 Backsight Azimuth: 86.21396 Backsight Circle: 0.0000
2195 Note: Fixed HR at Backsight:5.1 (5.1 + 0.0 Offset), Prism Const.:0.0mm
2196 Note: BS check 127 - 11:ZE89.5927,SD774.72,HD err= -0.01797, VD err= -0.005054
2197 Note: BS Circle check : angular err= 0.0000
2198 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
2199 Note: HR:4.97 (4.97 + 0.0 Offset)
2200 Line of Sight (HI/HR): Height of Instrument: 5.18USft Height of Rod: 4.97USft
2201 Side Shot: Occupy Point: 127
Foresight Point: 259 Angle Right: 330.4323 Zenith Angle: 89.5540 Slope Distance: 146.646USft Description: B-4010ALT
2202 Side Shot: Occupy Point: 127
Foresight Point: 260 Angle Right: 325.4441 Zenith Angle: 89.3958 Slope Distance: 240.238USft Description: B-4018
2203 Side Shot: Occupy Point: 127
Foresight Point: 261 Angle Right: 314.2154 Zenith Angle: 89.4945 Slope Distance: 419.524USft Description: B-3024
2204 Note: Date: 03-19-2007 Time: 15:26:55
2205 Off Center Shot: Angle Right: 314.2053
Zenith Angle: 89.4416 Slope Distance: 500.962USft
2206 Off Center Shot: Left/Right Offset: -2.0USft
Description: Left / Right Offset
2207 Side Shot: Occupy Point: 127

Foresight Point: 262 Angle Right: 314.070952 Zenith
Angle: 89.441601 Slope Distance: 500.965992USft Description: B-1133
2208 Side Shot: Occupy Point: 127
Foresight Point: 263 Angle Right: 359.0004 Zenith
Angle: 90.0150 Slope Distance: 325.21USft Description: B-1132ALT
2209 Off Center Shot: Angle Right: 26.5237
Zenith Angle: 90.0721 Slope Distance: 325.408USft
2210 Off Center Shot: Left/Right Offset: -1.0USft
Description: Left / Right Offset
2211 Side Shot: Occupy Point: 127
Foresight Point: 264 Angle Right: 26.420314 Zenith
Angle: 90.0721 Slope Distance: 325.409537USft Description: B-3025
2212 Off Center Shot: Angle Right: 50.4527
Zenith Angle: 90.2635 Slope Distance: 407.164USft
2213 Off Center Shot: Left/Right Offset: -1.0USft
Description: Left / Right Offset
2214 Side Shot: Occupy Point: 127
Foresight Point: 265 Angle Right: 50.37004 Zenith
Angle: 90.2635 Slope Distance: 407.165228USft Description: B-3026
2215 Note: Date: 03-19-2007 Time: 15:45:51
2216 Side Shot: Occupy Point: 127
Foresight Point: 266 Angle Right: 359.3005 Zenith
Angle: 90.0522 Slope Distance: 453.034USft Description: REMI-3001WEST
2217 Side Shot: Occupy Point: 127
Foresight Point: 267 Angle Right: 1.0736 Zenith
Angle: 90.0140 Slope Distance: 752.03USft Description: REMI-3001EAST
2218 Side Shot: Occupy Point: 127
Foresight Point: 268 Angle Right: 309.5248 Zenith
Angle: 90.1600 Slope Distance: 40.994USft Description: REMI-4001EAST
2219 Side Shot: Occupy Point: 127
Foresight Point: 269 Angle Right: 191.1758 Zenith
Angle: 89.5453 Slope Distance: 271.452USft Description: REMI-4001WEST
2220 Occupy Pt: Occupy Point: 127
Northing: 1142587.892USft Easting: 621125.933USft
Elevation: 218.695USft Description: NS
2221 Backsight: Occupy Point: 127
Backsight Point: 11 Backsight Azimuth: 86.21396 Backsight
Circle: 0.0000
2222 Note: Fixed HR at Backsight:5.1 (5.1 + 0.0 Offset),
Prism Const.:0.0mm
2223 Note: BS check 127 - 11:ZE89.5931,SD774.72,HD err= -
0.017968, VD err= -0.020077
2224 Note: BS Circle check : angular err= 0.0000
2225 Note: Foresight Target:My Prism, HR:8.5 (8.5 + 0.0
Offset), Prism Const.:0.0mm
2226 Note: HR:8.5 (8.5 + 0.0 Offset)
2227 Line of Sight (HI/HR): Height of Instrument: 5.18USft
Height of Rod: 8.5USft
2228 Note: Date: 03-19-2007 Time: 16:21:12
2229 Side Shot: Occupy Point: 127
Foresight Point: 270 Angle Right: 270.2002 Zenith
Angle: 88.3219 Slope Distance: 185.512USft Description: B-4015
2230 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
2231 Note: HR:4.97 (4.97 + 0.0 Offset)
2232 Line of Sight (HI/HR): Height of Instrument: 5.18USft
Height of Rod: 4.97USft
2233 Off Center Shot: Angle Right: 250.3621
Zenith Angle: 89.1828 Slope Distance: 275.862USft
2234 Off Center Shot: Left/Right Offset: 2.5USft
Description: Left / Right Offset
2235 Side Shot: Occupy Point: 127
Foresight Point: 271 Angle Right: 251.073036 Zenith
Angle: 89.18281 Slope Distance: 275.873328USft Description: B-4013
2236 Side Shot: Occupy Point: 127
Foresight Point: 272 Angle Right: 237.5331 Zenith
Angle: 89.3900 Slope Distance: 300.76USft Description: B-4014

2237 Off Center Shot: Angle Right: 219.0123
Zenith Angle: 89.2455 Slope Distance: 218.06USft
2238 Off Center Shot: Left/Right Offset: 1.0USft
Description: Left / Right Offset
2239 Side Shot: Occupy Point: 127
Foresight Point: 273 Angle Right: 219.170895 Zenith
Angle: 89.245502 Slope Distance: 218.062293USft Description: B-4005
2240 Off Center Shot: Angle Right: 212.5542
Zenith Angle: 89.4040 Slope Distance: 286.828USft
2241 Off Center Shot: Left/Right Offset: 1.0USft
Description: Left / Right Offset
2242 Side Shot: Occupy Point: 127
Foresight Point: 274 Angle Right: 213.074113 Zenith
Angle: 89.404001 Slope Distance: 286.829743USft Description: B-4035
2243 Off Center Shot: Angle Right: 252.1207
Zenith Angle: 89.4527 Slope Distance: 480.322USft
2244 Off Center Shot: Left/Right Offset: -0.5USft
Description: Left / Right Offset
2245 Side Shot: Occupy Point: 127
Foresight Point: 275 Angle Right: 252.083228 Zenith
Angle: 89.4527 Slope Distance: 480.32226USft Description: B-4017
2246 Note: Date: 03-19-2007 Time: 16:36:16
2247 Note: Foresight Target:My Prism, HR:14.0 (14.0 + 0.0
Offset), Prism Const.:0.0mm
2248 Note: HR:14.0 (14.0 + 0.0 Offset)
2249 Line of Sight (HI/HR): Height of Instrument: 5.18USft
Height of Rod: 14.0USft
2250 Note: Foresight Target:My Prism, HR:12.0 (12.0 + 0.0
Offset), Prism Const.:0.0mm
2251 Note: HR:12.0 (12.0 + 0.0 Offset)
2252 Line of Sight (HI/HR): Height of Instrument: 5.18USft
Height of Rod: 12.0USft
2253 Off Center Shot: Angle Right: 304.1859
Zenith Angle: 88.0511 Slope Distance: 215.722USft
2254 Off Center Shot: Left/Right Offset: 0.5USft
Description: Left / Right Offset
2255 Side Shot: Occupy Point: 127
Foresight Point: 276 Angle Right: 304.265735 Zenith
Angle: 88.051102 Slope Distance: 215.722579USft Description: B-4011
2256 Note: Foresight Target:My Prism, HR:5.1 (5.1 + 0.0
Offset), Prism Const.:0.0mm
2257 Note: HR:5.1 (5.1 + 0.0 Offset)
2258 Line of Sight (HI/HR): Height of Instrument: 5.18USft
Height of Rod: 5.1USft
2259 Side Shot: Occupy Point: 127
Foresight Point: 277 Angle Right: 0.0000 Zenith
Angle: 89.5936 Slope Distance: 774.726USft Description: CHK11
2260 Note: Foresight Target:My Prism, HR:5.12 (5.12 + 0.0
Offset), Prism Const.:0.0mm
2261 Occupy Pt: Occupy Point: 146
Northing: 1143007.533USft Easting: 621001.779USft
Elevation: 221.616USft Description: NS
2262 Note: HR:5.12 (5.12 + 0.0 Offset)
2263 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 5.12USft
2264 Backsight: Occupy Point: 146
Backsight Point: 127 Backsight Azimuth: 163.310748 Backsight
Circle: 0.0000
2265 Note: Fixed HR at Backsight:5.12 (5.12 + 0.0 Offset),
Prism Const.:0.0mm
2266 Note: BS check 146 - 127:ZE90.2444,SD437.61,HD err= -
0.023063, VD err= -0.047417
2267 Note: BS Circle check : angular err= 0.0000
2268 Note: BS check 146 - 127:ZE90.2437,SD437.61,HD err= -
0.022956, VD err= -0.032566
2269 Note: BS Circle check : angular err= 0.0000
2270 Occupy Pt: Occupy Point: 146

Northing: 1143007.533USft Easting: 621001.779USft
Elevation: 221.616USft Description: NS
2271 Note: HR:5.12 (5.12 + 0.0 Offset)
2272 Line of Sight (HI/HR): Height of Instrument: 5.29USft
Height of Rod: 5.12USft
2273 Backsight: Occupy Point: 146
Backsight Point: 127 Backsight Azimuth: 163.310748 Backsight
Circle: 0.0000
2274 Note: Fixed HR at Backsight:5.12 (5.12 + 0.0 Offset),
Prism Const.:0.0mm
2275 Note: BS check 146 - 127:ZE90.2437,SD437.598,HD err= -
0.034956, VD err= -0.04248
2276 Note: BS Circle check : angular err= 0.0000
2277 Occupy Pt: Occupy Point: 146
Northing: 1143007.533USft Easting: 621001.779USft
Elevation: 221.616USft Description: NS
2278 Note: HR:5.12 (5.12 + 0.0 Offset)
2279 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 5.12USft
2280 Backsight: Occupy Point: 146
Backsight Point: 127 Backsight Azimuth: 163.310748 Backsight
Circle: 0.0000
2281 Note: Fixed HR at Backsight:5.12 (5.12 + 0.0 Offset),
Prism Const.:0.0mm
2282 Note: BS check 146 - 127:ZE90.2431,SD437.622,HD err= -
0.010866, VD err= -0.019923
2283 Note: BS Circle check : angular err= 0.0000
2284 Side Shot: Occupy Point: 146
Foresight Point: 278 Angle Right: 359.5959 Zenith
Angle: 90.2433 Slope Distance: 437.608USft Description: CHK127
2285 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
2286 Note: HR:4.97 (4.97 + 0.0 Offset)
2287 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 4.97USft
2288 Side Shot: Occupy Point: 146
Foresight Point: 279 Angle Right: 294.1711 Zenith
Angle: 89.4937 Slope Distance: 280.848USft Description: B-4020
2289 Note: Date: 03-19-2007 Time: 16:59:13
2290 Side Shot: Occupy Point: 146
Foresight Point: 280 Angle Right: 291.2225 Zenith
Angle: 90.0143 Slope Distance: 370.982USft Description: B-4019
2291 Note: Foresight Target:My Prism, HR:5.12 (5.12 + 0.0
Offset), Prism Const.:0.0mm
2292 Note: HR:5.12 (5.12 + 0.0 Offset)
2293 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 5.12USft
2294 Side Shot: Occupy Point: 146
Foresight Point: 281 Angle Right: 0.0000 Zenith
Angle: 90.2439 Slope Distance: 437.614USft Description: CHK127
2295 Occupy Pt: Occupy Point: 11
Northing: 1142637.0645USft Easting: 621899.1089USft
Elevation: 218.904USft Description: #4RS
2296 Note: HR:5.12 (5.12 + 0.0 Offset)
2297 Line of Sight (HI/HR): Height of Instrument: 5.35USft
Height of Rod: 5.12USft
2298 Backsight: Occupy Point: 11
Backsight Point: 127 Backsight Azimuth: 266.21396 Backsight
Circle: 0.0000
2299 Note: Fixed HR at Backsight:5.12 (5.12 + 0.0 Offset),
Prism Const.:0.0mm
2300 Note: BS check 11 - 127:ZE90.0202,SD774.768,HD err=
0.029904, VD err= -0.019254
2301 Note: BS Circle check : angular err= 0.0001
2302 Note: BS check 11 - 127:ZE90.0203,SD774.764,HD err=
0.025902, VD err= -0.023008
2303 Note: BS Circle check : angular err= 0.0000

2304 Side Shot: Occupy Point: 11
Foresight Point: 282 Angle Right: 0.0000 Zenith
Angle: 90.0203 Slope Distance: 774.748USft Description: CHK127
2305 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
2306 Note: HR:4.97 (4.97 + 0.0 Offset)
2307 Line of Sight (HI/HR): Height of Instrument: 5.35USft
Height of Rod: 4.97USft
2308 Side Shot: Occupy Point: 11
Foresight Point: 283 Angle Right: 26.0101 Zenith
Angle: 89.5908 Slope Distance: 241.958USft Description: B-3035
2309 Side Shot: Occupy Point: 11
Foresight Point: 284 Angle Right: 31.5143 Zenith
Angle: 90.0138 Slope Distance: 170.254USft Description: B-3005
2310 Off Center Shot: Angle Right: 50.4012
Zenith Angle: 89.4454 Slope Distance: 221.428USft
2311 Off Center Shot: Left/Right Offset: 0.5USft
Description: Left / Right Offset
2312 Side Shot: Occupy Point: 11
Foresight Point: 285 Angle Right: 50.475776 Zenith
Angle: 89.4454 Slope Distance: 221.428565USft Description: B-3014
2313 Side Shot: Occupy Point: 11
Foresight Point: 286 Angle Right: 73.5522 Zenith
Angle: 89.4041 Slope Distance: 218.652USft Description: B-3013
2314 Off Center Shot: Angle Right: 66.0233
Zenith Angle: 90.0115 Slope Distance: 316.156USft
2315 Off Center Shot: Left/Right Offset: 1.0USft
Description: Left / Right Offset
2316 Side Shot: Occupy Point: 11
Foresight Point: 287 Angle Right: 66.132541 Zenith
Angle: 90.0115 Slope Distance: 316.157581USft Description: B-3039
2317 Side Shot: Occupy Point: 11
Foresight Point: 288 Angle Right: 80.2451 Zenith
Angle: 89.3354 Slope Distance: 328.544USft Description: B-3015
2318 Note: Date: 03-19-2007 Time: 17:37:24
2319 Side Shot: Occupy Point: 11
Foresight Point: 289 Angle Right: 76.2527 Zenith
Angle: 89.3128 Slope Distance: 440.088USft Description: B-3037
2320 Side Shot: Occupy Point: 11
Foresight Point: 290 Angle Right: 73.0300 Zenith
Angle: 89.3710 Slope Distance: 424.406USft Description: B-3017
2321 Off Center Shot: Angle Right: 66.2645
Zenith Angle: 89.3438 Slope Distance: 477.366USft
2322 Off Center Shot: Left/Right Offset: -1.2USft
Description: Left / Right Offset
2323 Side Shot: Occupy Point: 11
Foresight Point: 291 Angle Right: 66.180648 Zenith
Angle: 89.3438 Slope Distance: 477.367508USft Description: B-3023
2324 Off Center Shot: Angle Right: 85.4628
Zenith Angle: 89.4138 Slope Distance: 541.296USft
2325 Off Center Shot: Left/Right Offset: -2.0USft
Description: Left / Right Offset
2326 Side Shot: Occupy Point: 11
Foresight Point: 292 Angle Right: 85.334588 Zenith
Angle: 89.413801 Slope Distance: 541.299695USft Description: B-1131
2327 Side Shot: Occupy Point: 11
Foresight Point: 293 Angle Right: 110.5038 Zenith
Angle: 89.3021 Slope Distance: 453.462USft Description: B-3021
2328 Off Center Shot: Angle Right: 121.0310
Zenith Angle: 89.3143 Slope Distance: 383.488USft
2329 Off Center Shot: Left/Right Offset: -1.0USft
Description: Left / Right Offset
2330 Side Shot: Occupy Point: 11
Foresight Point: 294 Angle Right: 120.541212 Zenith
Angle: 89.314301 Slope Distance: 383.489304USft Description: B-3020
2331 Side Shot: Occupy Point: 11
Foresight Point: 295 Angle Right: 131.5359 Zenith

Angle: 89.3506 Slope Distance: 433.4USft Description: B-3019
2332 Side Shot: Occupy Point: 11
Foresight Point: 296 Angle Right: 158.3802 Zenith
Angle: 89.5235 Slope Distance: 239.044USft Description: B-3018
2333 Side Shot: Occupy Point: 11
Foresight Point: 297 Angle Right: 184.3836 Zenith
Angle: 89.4901 Slope Distance: 125.884USft Description: B-3010ALT
2334 Note: Date: 03-19-2007 Time: 17:52:28
2335 Occupy Pt: Occupy Point: 11
Northing: 1142637.0645USft Easting: 621899.1089USft
Elevation: 218.904USft Description: #4RS
2336 Backsight: Occupy Point: 11
Backsight Point: 127 Backsight Azimuth: 266.21396 Backsight
Circle: 0.0000
2337 Note: Fixed HR at Backsight:5.12 (5.12 + 0.0 Offset),
Prism Const.:0.0mm
2338 Note: BS check 11 - 127:ZE90.0201,SD774.752,HD err=
0.013906, VD err= -0.015489
2339 Note: BS Circle check : angular err= 0.0000
2340 Occupy Pt: Occupy Point: 11
Northing: 1142637.0645USft Easting: 621899.1089USft
Elevation: 218.904USft Description: #4RS
2341 Backsight: Occupy Point: 11
Backsight Point: 127 Backsight Azimuth: 266.21396 Backsight
Circle: 0.0000
2342 Note: Fixed HR at Backsight:5.12 (5.12 + 0.0 Offset),
Prism Const.:0.0mm
2343 Note: BS check 11 - 127:ZE90.0203,SD774.75,HD err=
0.011902, VD err= -0.023
2344 Note: BS Circle check : angular err= 0.0000
2345 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
2346 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0004
2347 Repeat Directional: Foresight Reverse
Set: 1 Angle: 140.0109
2348 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 269.3754
2349 Multiple Distances: Set: 1
Slope Distance: 464.684USft
2350 Repeat Foresight: Occupy Point: 11
Foresight Point: 298 Angle Right: 140.0109 Zenith
Angle: 269.3754 Slope Distance: 464.684USft Height of Rod: 4.97USft
Description: NS
2351 Repeat Directional: Foresight Direct
Set: 1 Angle: 320.0104
2352 Repeat Directional: Zenith Direct
Set: 1 Zenith: 90.2211
2353 Multiple Distances: Set: 1
Slope Distance: 464.684USft
2354 Repeat Foresight: Occupy Point: 11
Foresight Point: 298 Angle Right: 320.0104 Zenith
Angle: 90.2211 Slope Distance: 464.684USft Height of Rod: 4.97USft
Description: NS
2355 Note: Horizontal Angle Error: 0.0001
2356 Note: Zenith Angle Error: 0.0005
2357 Note: Slope Distance Error: 0.0
2358 Note: Horizontal Angle Error compares to the average:
0.0000
2359 Note: Zenith Angle Error compares to the average:
0.0000
2360 Note: Slope Distance Error compares to the average: 0.0
2361 Side Shot: Occupy Point: 11
Foresight Point: 298 Angle Right: 320.01045 Zenith
Angle: 90.22085 Slope Distance: 464.684USft Description: NS
2362 Note: Foresight Target:My Prism, HR:5.22 (5.22 + 0.0
Offset), Prism Const.:0.0mm

2363 Occupy Pt: Occupy Point: 298
Northing: 1142316.492173USft Easting: 621562.722744USft
Elevation: 216.291107USft Description: NS
2364 Note: HR:5.22 (5.22 + 0.0 Offset)
2365 Line of Sight (HI/HR): Height of Instrument: 5.22USft
Height of Rod: 5.22USft
2366 Backsight: Occupy Point: 298
Backsight Point: 11 Backsight Azimuth: 46.22441 Backsight
Circle: 0.0000
2367 Note: Fixed HR at Backsight:5.22 (5.22 + 0.0 Offset),
Prism Const.:0.0mm
2368 Note: BS check 298 - 11:ZE89.4040,SD464.668,HD err= -
0.01371, VD err= 0.000311
2369 Note: BS Circle check : angular err= 0.0000
2370 Note: Date: 03-19-2007 Time: 18:14:59
2371 Side Shot: Occupy Point: 298
Foresight Point: 299 Angle Right: 0.0001 Zenith
Angle: 89.4039 Slope Distance: 464.66USft Description: CHK11
2372 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
2373 Note: HR:4.97 (4.97 + 0.0 Offset)
2374 Line of Sight (HI/HR): Height of Instrument: 5.22USft
Height of Rod: 4.97USft
2375 Side Shot: Occupy Point: 298
Foresight Point: 300 Angle Right: 20.2051 Zenith
Angle: 89.3932 Slope Distance: 331.366USft Description: B-3004ALT
2376 Note: Foresight Target:My Prism, HR:5.22 (5.22 + 0.0
Offset), Prism Const.:0.0mm
2377 Note: HR:5.22 (5.22 + 0.0 Offset)
2378 Line of Sight (HI/HR): Height of Instrument: 5.22USft
Height of Rod: 5.22USft
2379 Side Shot: Occupy Point: 298
Foresight Point: 301 Angle Right: 359.5958 Zenith
Angle: 89.4036 Slope Distance: 464.664USft Description: CHK11
2380 Note: Data Collector Serial Number: FS29A13023
2381 Note: Activating Total Station: Nikon TOP GUN [Nikon],
COM1, 4800 baud, no parity
2382 Note: Foresight Target:My Prism, HR:5.22 (5.22 + 0.0
Offset), Prism Const.:0.0mm
2383 Note: Date: 03-19-2007 Time: 19:48:33
2384 Note: Data Collector Serial Number: FS29A13023
2385 Note: Activating Total Station: Nikon TOP GUN [Nikon],
COM1, 4800 baud, no parity
2386 Note: Foresight Target:My Prism, HR:5.22 (5.22 + 0.0
Offset), Prism Const.:0.0mm
2387 Note: Date: 03-20-2007 Time: 11:17:08
2388 Note: Foresight Target:My Prism, HR:5.12 (5.12 + 0.0
Offset), Prism Const.:0.0mm
2389 Occupy Pt: Occupy Point: 234
Northing: 1141757.126471USft Easting: 620684.619016USft
Elevation: 221.803969USft Description: NS
2390 Note: HR:5.12 (5.12 + 0.0 Offset)
2391 Line of Sight (HI/HR): Height of Instrument: 5.29USft
Height of Rod: 5.12USft
2392 Backsight: Occupy Point: 234
Backsight Point: 138 Backsight Azimuth: 90.200221 Backsight
Circle: 0.0000
2393 Note: Fixed HR at Backsight:5.12 (5.12 + 0.0 Offset),
Prism Const.:0.0mm
2394 Note: BS check 234 - 138:ZE89.5819,SD924.492,HD err= -
0.017799, VD err= -0.000343
2395 Note: BS Circle check : angular err= 0.0000
2396 Side Shot: Occupy Point: 234
Foresight Point: 9197 Angle Right: 0.0000 Zenith
Angle: 89.5819 Slope Distance: 924.498USft Description: CHK138
2397 Note: Foresight Target:My Prism, HR:5.43 (5.43 + 0.0
Offset), Prism Const.:0.0mm

2398 Note: HR:5.43 (5.43 + 0.0 Offset)
2399 Line of Sight (HI/HR): Height of Instrument: 5.29USft
Height of Rod: 5.43USft
2400 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
2401 Repeat Directional: Backsight Reverse
Set: 1 Angle: 179.5959
2402 Repeat Directional: Foresight Reverse
Set: 1 Angle: 236.0959
2403 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 270.1950
2404 Multiple Distances: Set: 1
Slope Distance: 181.026USft
2405 Repeat Foresight: Occupy Point: 234
Foresight Point: 9198 Angle Right: 236.0959 Zenith
Angle: 270.1950 Slope Distance: 181.026USft Height of Rod: 5.43USft
Description: NS
2406 Repeat Directional: Foresight Direct
Set: 1 Angle: 56.1000
2407 Repeat Directional: Zenith Direct
Set: 1 Zenith: 89.4001
2408 Multiple Distances: Set: 1
Slope Distance: 181.028USft
2409 Repeat Foresight: Occupy Point: 234
Foresight Point: 9198 Angle Right: 56.1000 Zenith
Angle: 89.4001 Slope Distance: 181.028USft Height of Rod: 5.43USft
Description: NS
2410 Note: Horizontal Angle Error: 0.0000
2411 Note: Zenith Angle Error: 0.0009
2412 Note: Slope Distance Error: 0.002
2413 Note: Horizontal Angle Error compares to the average:
0.0000
2414 Note: Zenith Angle Error compares to the average:
0.0000
2415 Note: Slope Distance Error compares to the average: 0.0
2416 Side Shot: Occupy Point: 234
Foresight Point: 9198 Angle Right: 56.1000 Zenith
Angle: 89.40055 Slope Distance: 181.027USft Description: NS
2417 Occupy Pt: Occupy Point: 234
Northing: 1141757.126471USft Easting: 620684.619016USft
Elevation: 221.803969USft Description: NS
2418 Note: HR:5.43 (5.43 + 0.0 Offset)
2419 Line of Sight (HI/HR): Height of Instrument: 5.32USft
Height of Rod: 5.43USft
2420 Backsight: Occupy Point: 234
Backsight Point: 138 Backsight Azimuth: 90.200221 Backsight
Circle: 0.0000
2421 Note: Fixed HR at Backsight:5.12 (5.12 + 0.0 Offset),
Prism Const.:0.0mm
2422 Note: BS check 234 - 138:ZE89.5824,SD924.5,HD err= -
0.009788, VD err= 0.007251
2423 Note: BS Circle check : angular err= 0.0000
2424 Note: Foresight Target:My Prism, HR:5.42 (5.42 + 0.0
Offset), Prism Const.:0.0mm
2425 Note: HR:5.42 (5.42 + 0.0 Offset)
2426 Line of Sight (HI/HR): Height of Instrument: 5.32USft
Height of Rod: 5.42USft
2427 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
2428 Repeat Directional: Backsight Reverse
Set: 1 Angle: 179.5959
2429 Repeat Directional: Foresight Reverse
Set: 1 Angle: 350.0913
2430 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 269.4256
2431 Multiple Distances: Set: 1
Slope Distance: 351.364USft

2432 Repeat Foresight: Occupy Point: 234
Foresight Point: 9199 Angle Right: 350.0913 Zenith
Angle: 269.4256 Slope Distance: 351.364USft Height of Rod: 5.42USft
Description: NS
2433 Repeat Directional: Foresight Direct
Set: 1 Angle: 170.0910
2434 Repeat Directional: Zenith Direct
Set: 1 Zenith: 90.1701
2435 Multiple Distances: Set: 1
Slope Distance: 351.364USft
2436 Repeat Foresight: Occupy Point: 234
Foresight Point: 9199 Angle Right: 170.0910 Zenith
Angle: 90.1701 Slope Distance: 351.364USft Height of Rod: 5.42USft
Description: NS
2437 Note: Horizontal Angle Error: 0.0004
2438 Note: Zenith Angle Error: 0.0003
2439 Note: Slope Distance Error: 0.0
2440 Note: Horizontal Angle Error compares to the average:
0.0000
2441 Note: Zenith Angle Error compares to the average:
0.0000
2442 Note: Slope Distance Error compares to the average: 0.0
2443 Side Shot: Occupy Point: 234
Foresight Point: 9199 Angle Right: 170.0912 Zenith
Angle: 90.17025 Slope Distance: 351.364USft Description: NS
2444 Store Point: Point Name: 302
Northing: 1141751.738069USft Easting: 621609.101202USft
Elevation: 222.42666USft Description: CHK138
2445 Store Point: Point Name: 303
Northing: 1141606.172081USft Easting: 620784.531217USft
Elevation: 222.712308USft Description: NS
2446 Store Point: Point Name: 304
Northing: 1141699.058473USft Easting: 620338.090901USft
Elevation: 219.962187USft Description: NS
2447 Deleted Point: Point Name: 9199
2448 Deleted Point: Point Name: 9198
2449 Deleted Point: Point Name: 9197
2450 Note: Foresight Target:My Prism, HR:5.25 (5.25 + 0.0
Offset), Prism Const.:0.0mm
2451 Occupy Pt: Occupy Point: 304
Northing: 1141699.058473USft Easting: 620338.090901USft
Elevation: 219.962187USft Description: NS
2452 Note: HR:5.25 (5.25 + 0.0 Offset)
2453 Line of Sight (HI/HR): Height of Instrument: 5.39USft
Height of Rod: 5.25USft
2454 Backsight: Occupy Point: 304
Backsight Point: 234 Backsight Azimuth: 80.291421 Backsight
Circle: 0.0000
2455 Note: Fixed HR at Backsight:5.25 (5.25 + 0.0 Offset),
Prism Const.:0.0mm
2456 Note: BS check 304 - 234:ZE89.4328,SD351.37,HD err=
0.006254, VD err= -0.011926
2457 Note: BS Circle check : angular err= 0.0000
2458 Note: BS check 304 - 234:ZE89.4326,SD351.376,HD err=
0.012237, VD err= -0.00849
2459 Note: BS Circle check : angular err= 0.0000
2460 Note: BS check 304 - 234:ZE89.4323,SD351.376,HD err=
0.012213, VD err= -0.00338
2461 Note: BS Circle check : angular err= 0.0000
2462 Side Shot: Occupy Point: 304
Foresight Point: 9199 Angle Right: 0.0000 Zenith
Angle: 89.4323 Slope Distance: 351.374USft Description: CHK234
2463 Store Point: Point Name: 305
Northing: 1141757.128159USft Easting: 620684.629088USft
Elevation: 221.800579USft Description: CHK234
2464 Deleted Point: Point Name: 9199
2465 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0

Offset), Prism Const.:0.0mm
2466 Note: HR:4.97 (4.97 + 0.0 Offset)
2467 Line of Sight (HI/HR): Height of Instrument: 5.39USft
Height of Rod: 4.97USft
2468 Side Shot: Occupy Point: 304
Foresight Point: 306 Angle Right: 97.2846 Zenith
Angle: 90.0512 Slope Distance: 301.136USft Description: B-4033
2469 Note: Foresight Target:My Prism, HR:5.25 (5.25 + 0.0
Offset), Prism Const.:0.0mm
2470 Note: HR:5.25 (5.25 + 0.0 Offset)
2471 Line of Sight (HI/HR): Height of Instrument: 5.39USft
Height of Rod: 5.25USft
2472 Side Shot: Occupy Point: 304
Foresight Point: 307 Angle Right: 0.0001 Zenith
Angle: 89.4324 Slope Distance: 351.376USft Description: CHK234
2473 Note: Date: 03-20-2007 Time: 11:45:30
2474 Occupy Pt: Occupy Point: 303
Northing: 1141606.172081USft Easting: 620784.531217USft
Elevation: 222.712308USft Description: NS
2475 Note: HR:5.25 (5.25 + 0.0 Offset)
2476 Line of Sight (HI/HR): Height of Instrument: 5.21USft
Height of Rod: 5.25USft
2477 Backsight: Occupy Point: 303
Backsight Point: 234 Backsight Azimuth: 326.300221 Backsight
Circle: 0.0000
2478 Note: Fixed HR at Backsight:5.25 (5.25 + 0.0 Offset),
Prism Const.:0.0mm
2479 Note: BS check 303 - 234:ZE90.1626,SD181.016,HD err= -
0.010033, VD err= 0.003038
2480 Note: BS Circle check : angular err= 0.0000
2481 Side Shot: Occupy Point: 303
Foresight Point: 308 Angle Right: 0.0000 Zenith
Angle: 90.1626 Slope Distance: 181.014USft Description: CHK234
2482 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
2483 Note: HR:4.97 (4.97 + 0.0 Offset)
2484 Line of Sight (HI/HR): Height of Instrument: 5.21USft
Height of Rod: 4.97USft
2485 Off Center Shot: Angle Right: 212.3247
Zenith Angle: 90.1907 Slope Distance: 487.804USft
2486 Off Center Shot: Left/Right Offset: -2.0USft
Description: Left / Right Offset
2487 Side Shot: Occupy Point: 303
Foresight Point: 309 Angle Right: 212.18413 Zenith
Angle: 90.190699 Slope Distance: 487.8081USft Description: B-4032
2488 Off Center Shot: Angle Right: 212.3203
Zenith Angle: 90.1927 Slope Distance: 482.566USft
2489 Off Center Shot: Left/Right Offset: -2.0USft
Description: Left / Right Offset
2490 Side Shot: Occupy Point: 303
Foresight Point: 310 Angle Right: 212.174812 Zenith
Angle: 90.192699 Slope Distance: 482.570144USft Description: B-4032ALT
2491 Off Center Shot: Angle Right: 212.1804
Zenith Angle: 90.0227 Slope Distance: 230.664USft
2492 Off Center Shot: Left/Right Offset: -6.0USft
Description: Left / Right Offset
2493 Side Shot: Occupy Point: 303
Foresight Point: 311 Angle Right: 210.483988 Zenith
Angle: 90.022695 Slope Distance: 230.742022USft Description: B-4034
2494 Store Point: Point Name: 312
Northing: 1141375.684056USft Easting: 620795.353619USft
Elevation: 222.787919USft Description: ER-4001
2495 Store Point: Point Name: 313
Northing: 1141375.684056USft Easting: 620795.353619USft
Elevation: 222.787919USft Description: ER-4002
2496 Side Shot: Occupy Point: 303
Foresight Point: 314 Angle Right: 170.4709 Zenith

Angle: 90.1004 Slope Distance: 280.838USft Description: B-4031
2497 Store Point: Point Name: 315
Northing: 1142180.045221USft Easting: 620633.446909USft
Elevation: 217.730872USft Description: ER-4003
2498 Note: Foresight Target:My Prism, HR:5.25 (5.25 + 0.0
Offset), Prism Const.:0.0mm
2499 Note: HR:5.25 (5.25 + 0.0 Offset)
2500 Line of Sight (HI/HR): Height of Instrument: 5.21USft
Height of Rod: 5.25USft
2501 Side Shot: Occupy Point: 303
Foresight Point: 316 Angle Right: 0.0001 Zenith
Angle: 90.1621 Slope Distance: 181.018USft Description: CHK234
2502 Note: Foresight Target:My Prism, HR:5.12 (5.12 + 0.0
Offset), Prism Const.:0.0mm
2503 Occupy Pt: Occupy Point: 9
Northing: 1142033.9818USft Easting: 621961.2139USft
Elevation: 218.933USft Description: PKNS
2504 Note: HR:5.12 (5.12 + 0.0 Offset)
2505 Line of Sight (HI/HR): Height of Instrument: 5.34USft
Height of Rod: 5.12USft
2506 Backsight: Occupy Point: 9
Backsight Point: 138 Backsight Azimuth: 231.170371 Backsight
Circle: 0.0000
2507 Note: Fixed HR at Backsight:5.12 (5.12 + 0.0 Offset),
Prism Const.:0.0mm
2508 Note: BS check 9 - 138:ZE89.3509,SD451.244,HD err= -
0.028918, VD err= -0.012179
2509 Note: BS Circle check : angular err= 0.0000
2510 Note: BS check 9 - 138:ZE89.3503,SD451.25,HD err= -
0.023013, VD err= 0.000991
2511 Note: BS Circle check : angular err= 0.0000
2512 Side Shot: Occupy Point: 9
Foresight Point: 317 Angle Right: 0.0000 Zenith
Angle: 89.3503 Slope Distance: 451.244USft Description: CHK138
2513 Note: Date: 03-20-2007 Time: 12:15:52
2514 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
2515 Repeat Directional: Backsight Reverse
Set: 1 Angle: 179.5956
2516 Repeat Directional: Foresight Reverse
Set: 1 Angle: 107.3716
2517 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 270.3415
2518 Multiple Distances: Set: 1
Slope Distance: 396.0USft
2519 Repeat Foresight: Occupy Point: 9
Foresight Point: 318 Angle Right: 107.3716 Zenith
Angle: 270.3415 Slope Distance: 396.0USft Height of Rod: 5.12USft
Description: NS
2520 Repeat Directional: Foresight Direct
Set: 1 Angle: 287.3718
2521 Repeat Directional: Zenith Direct
Set: 1 Zenith: 89.2553
2522 Multiple Distances: Set: 1
Slope Distance: 396.002USft
2523 Repeat Foresight: Occupy Point: 9
Foresight Point: 318 Angle Right: 287.3718 Zenith
Angle: 89.2553 Slope Distance: 396.002USft Height of Rod: 5.12USft
Description: NS
2524 Note: Horizontal Angle Error: 0.0002
2525 Note: Zenith Angle Error: 0.0008
2526 Note: Slope Distance Error: 0.002
2527 Note: Horizontal Angle Error compares to the average:
0.0000
2528 Note: Zenith Angle Error compares to the average:
0.0000
2529 Note: Slope Distance Error compares to the average: 0.0

2530 Side Shot: Occupy Point: 9
Foresight Point: 318 Angle Right: 287.3719 Zenith
Angle: 89.2549 Slope Distance: 396.001USft Description: NS
2531 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
2532 Off Center Shot: Angle Right: 161.4130
Zenith Angle: 90.1151 Slope Distance: 533.664USft
2533 Off Center Shot: Left/Right Offset: -2.0USft
Description: Left / Right Offset
2534 Note: HR:4.97 (4.97 + 0.0 Offset)
2535 Line of Sight (HI/HR): Height of Instrument: 5.34USft
Height of Rod: 4.97USft
2536 Side Shot: Occupy Point: 9
Foresight Point: 319 Angle Right: 161.283699 Zenith
Angle: 90.1151 Slope Distance: 533.667748USft Description: B-1130
2537 Note: Foresight Target:My Prism, HR:5.12 (5.12 + 0.0
Offset), Prism Const.:0.0mm
2538 Note: HR:5.12 (5.12 + 0.0 Offset)
2539 Line of Sight (HI/HR): Height of Instrument: 5.34USft
Height of Rod: 5.12USft
2540 Side Shot: Occupy Point: 9
Foresight Point: 320 Angle Right: 359.5959 Zenith
Angle: 89.3509 Slope Distance: 451.246USft Description: CHK138
2541 Occupy Pt: Occupy Point: 318
Northing: 1141664.533836USft Easting: 622103.725266USft
Elevation: 223.090582USft Description: NS
2542 Note: HR:5.12 (5.12 + 0.0 Offset)
2543 Line of Sight (HI/HR): Height of Instrument: 5.32USft
Height of Rod: 5.12USft
2544 Backsight: Occupy Point: 318
Backsight Point: 138 Backsight Azimuth: 279.595623 Backsight
Circle: 0.0000
2545 Note: Fixed HR at Backsight:5.12 (5.12 + 0.0 Offset),
Prism Const.:0.0mm
2546 Note: BS check 318 - 138:ZE90.0555,SD502.224,HD err= -
0.017582, VD err= -0.000789
2547 Note: BS Circle check : angular err= 0.0000
2548 Side Shot: Occupy Point: 318
Foresight Point: 321 Angle Right: 0.0000 Zenith
Angle: 90.0556 Slope Distance: 502.222USft Description: CHK138
2549 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
2550 Note: HR:4.97 (4.97 + 0.0 Offset)
2551 Line of Sight (HI/HR): Height of Instrument: 5.32USft
Height of Rod: 4.97USft
2552 Side Shot: Occupy Point: 318
Foresight Point: 322 Angle Right: 273.0418 Zenith
Angle: 90.0923 Slope Distance: 272.872USft Description: CHK138
2553 Store Point: Point Name: 322
Northing: 1141398.732377USft Easting: 622042.014994USft
Elevation: 222.695779USft Description: B-3031
2554 Note: Data Collector Serial Number: FS29A13023
2555 Note: Activating Total Station: Nikon TOP GUN [Nikon],
COM1, 4800 baud, no parity
2556 Note: Foresight Target:My Prism, HR:5.22 (5.22 + 0.0
Offset), Prism Const.:0.0mm
2557 Note: Date: 03-20-2007 Time: 12:34:52
2558 Occupy Pt: Occupy Point: 14
Northing: 1143261.7065USft Easting: 621997.1521USft
Elevation: 222.513USft Description: #4RS
2559 Note: HR:5.22 (5.22 + 0.0 Offset)
2560 Line of Sight (HI/HR): Height of Instrument: 5.22USft
Height of Rod: 5.22USft
2561 Backsight: Occupy Point: 14
Backsight Point: 16 Backsight Azimuth: 40.093513 Backsight
Circle: 0.0000
2562 Note: Fixed HR at Backsight:0.0 (0.0 + 0.0 Offset),

Prism Const.:0.0mm
2563 Note: Date: 03-20-2007 Time: 12:55:06
2564 Occupy Pt: Occupy Point: 21
Northing: 1145197.2227USft Easting: 621927.4809USft
Elevation: 238.183USft Description: #4RS
2565 Backsight: Occupy Point: 21
Backsight Point: 23 Backsight Azimuth: 13.075463 Backsight Circle: 0.0000
2566 Note: Fixed HR at Backsight:0.0 (0.0 + 0.0 Offset), Prism Const.:0.0mm
2567 Occupy Pt: Occupy Point: 29
Northing: 1146604.7674USft Easting: 624026.4267USft
Elevation: 236.26USft Description: PT8000
2568 Backsight: Occupy Point: 29
Backsight Point: 47 Backsight Azimuth: 67.485012 Backsight Circle: 0.0000
2569 Note: Fixed HR at Backsight:0.0 (0.0 + 0.0 Offset), Prism Const.:0.0mm
2570 Occupy Pt: Occupy Point: 23
Northing: 1145666.8682USft Easting: 622037.046USft
Elevation: 237.279USft Description: #4RS
2571 Backsight: Occupy Point: 23
Backsight Point: 25 Backsight Azimuth: 74.245812 Backsight Circle: 0.0000
2572 Note: Fixed HR at Backsight:0.0 (0.0 + 0.0 Offset), Prism Const.:0.0mm
2573 Note: Date: 03-20-2007 Time: 13:16:50
2574 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
2575 Occupy Pt: Occupy Point: 16
Northing: 1143915.652023USft Easting: 622548.992082USft
Elevation: 227.605USft Description: #4RS
2576 Note: HR:4.97 (4.97 + 0.0 Offset)
2577 Line of Sight (HI/HR): Height of Instrument: 5.24USft
Height of Rod: 4.97USft
2578 Backsight: Occupy Point: 16
Backsight Point: 18 Backsight Azimuth: 353.053612 Backsight Circle: 0.0000
2579 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
2580 Note: BS check 16 - 18:ZE90.1036,SD712.41,HD err= -0.03478, VD err= -0.032652
2581 Note: BS Circle check : angular err= 0.0000
2582 Note: BS check 16 - 18:ZE90.1036,SD712.402,HD err= -0.04278, VD err= -0.032628
2583 Note: BS Circle check : angular err= 0.0000
2584 Note: BS check 16 - 18:ZE90.1036,SD712.412,HD err= -0.03278, VD err= -0.032658
2585 Note: BS Circle check : angular err= 0.0000
2586 Occupy Pt: Occupy Point: 16
Northing: 1143915.652023USft Easting: 622548.992082USft
Elevation: 227.605USft Description: #4RS
2587 Backsight: Occupy Point: 16
Backsight Point: 18 Backsight Azimuth: 353.053612 Backsight Circle: 0.0000
2588 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
2589 Note: BS check 16 - 18:ZE90.1040,SD712.388,HD err= -0.056823, VD err= -0.046399
2590 Note: BS Circle check : angular err= 0.0000
2591 Note: BS check 16 - 18:ZE90.1039,SD712.412,HD err= -0.032812, VD err= -0.04302
2592 Note: BS Circle check : angular err= 0.0000
2593 Note: BS check 16 - 18:ZE90.1038,SD712.402,HD err= -0.042802, VD err= -0.039535
2594 Note: BS Circle check : angular err= 0.0000
2595 Side Shot: Occupy Point: 16

Foresight Point: 9197 Angle Right: 0.0000 Zenith
Angle: 90.1038 Slope Distance: 712.416USft Description: CHK18
2596 Store Point: Point Name: 323
Northing: 1144622.89494USft Easting: 622463.323201USft
Elevation: 225.671422USft Description: CHK18
2597 Deleted Point: Point Name: 9197
2598 Side Shot: Occupy Point: 16
Foresight Point: 324 Angle Right: 164.0557 Zenith
Angle: 91.3656 Slope Distance: 24.524USft Description: B-1120ALT
2599 Side Shot: Occupy Point: 16
Foresight Point: 325 Angle Right: 9.1545 Zenith
Angle: 90.0820 Slope Distance: 303.968USft Description: B-1112ALT
2600 Side Shot: Occupy Point: 16
Foresight Point: 326 Angle Right: 31.4338 Zenith
Angle: 92.2316 Slope Distance: 339.326USft Description: B-1112
2601 Note: Date: 03-20-2007 Time: 13:31:54
2602 Side Shot: Occupy Point: 16
Foresight Point: 327 Angle Right: 330.5830 Zenith
Angle: 90.2751 Slope Distance: 366.734USft Description: B-1111
2603 Store Point: Point Name: 328
Northing: 1143261.724534USft Easting: 621997.167379USft
Elevation: 222.469702USft Description: CHK14
2604 Cut Sheet: Elevation: 222.469702USft
Design Grade: 222.513
2605 Design Point/Location: Point Name: 14
Northing: 1143261.7065USft Easting: 621997.1521USft
Elevation: 222.513USft Description: #4RS
2606 Stakeout Deltas: Delta Northing: -0.018034USft
Delta Easting: -0.015279USft Delta Elevation: 0.043298USft
2607 Stakeout: Occupy Point: 16
Foresight Point: 328 Angle Right: 227.0359 Zenith
Angle: 90.2143 Slope Distance: 855.664USft Description: CHK14
2608 Note: Date: 03-20-2007 Time: 13:46:58
2609 Side Shot: Occupy Point: 16
Foresight Point: 329 Angle Right: 165.3900 Zenith
Angle: 91.2949 Slope Distance: 368.166USft Description: B-1128
2610 Side Shot: Occupy Point: 16
Foresight Point: 330 Angle Right: 165.0902 Zenith
Angle: 91.3255 Slope Distance: 368.304USft Description: B-1128ALT
2611 Occupy Pt: Occupy Point: 146
Northing: 1143007.533USft Easting: 621001.779USft
Elevation: 221.616USft Description: NS
2612 Note: HR:4.97 (4.97 + 0.0 Offset)
2613 Line of Sight (HI/HR): Height of Instrument: 5.33USft
Height of Rod: 4.97USft
2614 Backsight: Occupy Point: 146
Backsight Point: 127 Backsight Azimuth: 163.310748 Backsight
Circle: 0.0000
2615 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset),
Prism Const.:0.0mm
2616 Note: BS check 146 - 127:ZE90.2548,SD437.614,HD err= -
0.020061, VD err= -0.003225
2617 Note: BS Circle check : angular err= 0.0000
2618 Side Shot: Occupy Point: 146
Foresight Point: 331 Angle Right: 0.0000 Zenith
Angle: 90.2548 Slope Distance: 437.602USft Description: CHK127
2619 Note: Date: 03-20-2007 Time: 15:05:16
2620 Side Shot: Occupy Point: 146
Foresight Point: 332 Angle Right: 203.3419 Zenith
Angle: 90.0636 Slope Distance: 171.89USft Description: B-1136
2621 Off Center Shot: Angle Right: 216.5834
Zenith Angle: 89.5912 Slope Distance: 293.804USft
2622 Off Center Shot: Left/Right Offset: -0.4USft
Description: Left / Right Offset
2623 Side Shot: Occupy Point: 146
Foresight Point: 333 Angle Right: 216.535318 Zenith
Angle: 89.5912 Slope Distance: 293.804272USft Description: B-1134

2624 Side Shot: Occupy Point: 146
Foresight Point: 334 Angle Right: 359.5958 Zenith
Angle: 90.2558 Slope Distance: 437.63USft Description: CHK127
2625 Note: Foresight Target:My Prism, HR:4.84 (4.84 + 0.0
Offset), Prism Const.:0.0mm
2626 Occupy Pt: Occupy Point: 9163
Northing: 1143003.502267USft Easting: 620311.711973USft
Elevation: 250.196261USft Description: NS
2627 Note: HR:4.84 (4.84 + 0.0 Offset)
2628 Line of Sight (HI/HR): Height of Instrument: 5.13USft
Height of Rod: 4.84USft
2629 Backsight: Occupy Point: 9163
Backsight Point: 9159 Backsight Azimuth: 261.385713 Backsight
Circle: 0.0000
2630 Note: Fixed HR at Backsight:4.84 (4.84 + 0.0 Offset),
Prism Const.:0.0mm
2631 Note: BS check 9163 - 9159:ZE90.0008,SD408.21,HD err=
0.010108, VD err= -0.002684
2632 Note: BS Circle check : angular err= 0.0000
2633 Side Shot: Occupy Point: 9163
Foresight Point: 335 Angle Right: 0.0001 Zenith
Angle: 90.0008 Slope Distance: 408.21USft Description: CHK9159
2634 Note: Date: 03-20-2007 Time: 15:30:36
2635 Note: Foresight Target:My Prism, HR:4.51 (4.51 + 0.0
Offset), Prism Const.:0.0mm
2636 Occupy Pt: Occupy Point: 9163
Northing: 1143003.502267USft Easting: 620311.711973USft
Elevation: 250.196261USft Description: NS
2637 Note: HR:4.51 (4.51 + 0.0 Offset)
2638 Line of Sight (HI/HR): Height of Instrument: 5.13USft
Height of Rod: 4.51USft
2639 Backsight: Occupy Point: 9163
Backsight Point: 9159 Backsight Azimuth: 261.385713 Backsight
Circle: 0.0000
2640 Note: Fixed HR at Backsight:4.84 (4.84 + 0.0 Offset),
Prism Const.:0.0mm
2641 Note: BS check 9163 - 9159:ZE90.0009,SD408.208,HD err=
0.008108, VD err= -0.004663
2642 Note: BS Circle check : angular err= 0.0000
2643 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
2644 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0002
2645 Repeat Directional: Foresight Reverse
Set: 1 Angle: 358.3127
2646 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 269.4555
2647 Multiple Distances: Set: 1
Slope Distance: 433.94USft
2648 Repeat Foresight: Occupy Point: 9163
Foresight Point: 336 Angle Right: 358.3127 Zenith
Angle: 269.4555 Slope Distance: 433.94USft Height of Rod: 4.51USft
Description: NS
2649 Repeat Directional: Foresight Direct
Set: 1 Angle: 178.3116
2650 Repeat Directional: Zenith Direct
Set: 1 Zenith: 90.1401
2651 Multiple Distances: Set: 1
Slope Distance: 433.938USft
2652 Repeat Foresight: Occupy Point: 9163
Foresight Point: 336 Angle Right: 178.3116 Zenith
Angle: 90.1401 Slope Distance: 433.938USft Height of Rod: 4.51USft
Description: NS
2653 Note: Horizontal Angle Error: 0.0009
2654 Note: Zenith Angle Error: 0.0004
2655 Note: Slope Distance Error: 0.002
2656 Note: Horizontal Angle Error compares to the average:

0.0000
2657 Note: Zenith Angle Error compares to the average:
0.0000
2658 Note: Slope Distance Error compares to the average: 0.0
2659 Side Shot: Occupy Point: 9163
Foresight Point: 336 Angle Right: 178.31205 Zenith
Angle: 90.1403 Slope Distance: 433.939USft Description: NS
2660 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
2661 Note: HR:4.97 (4.97 + 0.0 Offset)
2662 Line of Sight (HI/HR): Height of Instrument: 5.13USft
Height of Rod: 4.97USft
2663 Side Shot: Occupy Point: 9163
Foresight Point: 337 Angle Right: 89.5023 Zenith
Angle: 91.4921 Slope Distance: 67.06USft Description: B-6006
2664 Side Shot: Occupy Point: 9163
Foresight Point: 338 Angle Right: 280.2601 Zenith
Angle: 95.5225 Slope Distance: 274.39USft Description: B-6007
2665 Note: Foresight Target:My Prism, HR:4.84 (4.84 + 0.0
Offset), Prism Const.:0.0mm
2666 Note: HR:4.84 (4.84 + 0.0 Offset)
2667 Line of Sight (HI/HR): Height of Instrument: 5.13USft
Height of Rod: 4.84USft
2668 Side Shot: Occupy Point: 9163
Foresight Point: 339 Angle Right: 359.5955 Zenith
Angle: 90.0013 Slope Distance: 408.206USft Description: CHK9159
2669 Note: Foresight Target:My Prism, HR:4.75 (4.75 + 0.0
Offset), Prism Const.:0.0mm
2670 Occupy Pt: Occupy Point: 336
Northing: 1143077.574404USft Easting: 620739.27861USft
Elevation: 249.042766USft Description: NS
2671 Note: HR:4.75 (4.75 + 0.0 Offset)
2672 Line of Sight (HI/HR): Height of Instrument: 5.04USft
Height of Rod: 4.75USft
2673 Backsight: Occupy Point: 336
Backsight Point: 9163 Backsight Azimuth: 260.101763 Backsight
Circle: 0.0000
2674 Note: Fixed HR at Backsight:4.75 (4.75 + 0.0 Offset),
Prism Const.:0.0mm
2675 Note: BS check 336 - 9163:ZE89.5325,SD433.922,HD err= -
0.014172, VD err= -0.032529
2676 Note: BS Circle check : angular err= 0.0000
2677 Note: BS check 336 - 9163:ZE89.5325,SD433.916,HD err= -
0.020172, VD err= -0.03254
2678 Note: BS Circle check : angular err= 0.0000
2679 Note: BS check 336 - 9163:ZE89.5325,SD433.926,HD err= -
0.010172, VD err= -0.032521
2680 Note: BS Circle check : angular err= 0.0000
2681 Note: BS check 336 - 9163:ZE89.5328,SD433.934,HD err= -
0.00216, VD err= -0.038817
2682 Note: BS Circle check : angular err= 0.0000
2683 Note: BS check 336 - 9163:ZE89.5328,SD433.928,HD err= -
0.00816, VD err= -0.038828
2684 Note: BS Circle check : angular err= 0.0000
2685 Occupy Pt: Occupy Point: 336
Northing: 1143077.574404USft Easting: 620739.27861USft
Elevation: 249.042766USft Description: NS
2686 Backsight: Occupy Point: 336
Backsight Point: 9163 Backsight Azimuth: 260.101763 Backsight
Circle: 0.0000
2687 Note: Fixed HR at Backsight:4.75 (4.75 + 0.0 Offset),
Prism Const.:0.0mm
2688 Note: BS check 336 - 9163:ZE89.5328,SD433.924,HD err= -
0.012159, VD err= -0.038836
2689 Note: BS Circle check : angular err= 0.0000
2690 Remote Elevation: Occupy Point: 336
Foresight Elevation: 250.196261USft Zenith Angle: 89.5325 Slope

Distance: 433.92USft Description: Remote elev
2691 Store Point: Point Name: 336
Northing: 1143077.574404USft Easting: 620739.27861USft
Elevation: 249.075299USft Description: NS
2692 Occupy Pt: Occupy Point: 336
Northing: 1143077.574404USft Easting: 620739.27861USft
Elevation: 249.075299USft Description: NS
2693 Backsight: Occupy Point: 336
Backsight Point: 9163 Backsight Azimuth: 260.101763 Backsight Circle: 0.0000
2694 Note: Fixed HR at Backsight:4.75 (4.75 + 0.0 Offset), Prism Const.:0.0mm
2695 Note: BS check 336 - 9163:ZE89.5319,SD433.928,HD err= -0.008196, VD err= 0.012638
2696 Note: BS Circle check : angular err= 0.0000
2697 Note: BS check 336 - 9163:ZE89.5322,SD433.922,HD err= -0.014184, VD err= 0.006315
2698 Note: BS Circle check : angular err= 0.0000
2699 Side Shot: Occupy Point: 336
Foresight Point: 340 Angle Right: 0.0000 Zenith Angle: 89.5323 Slope Distance: 433.928USft Description: CHK9163
2700 Note: Date: 03-20-2007 Time: 15:51:52
2701 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
2702 Note: HR:4.97 (4.97 + 0.0 Offset)
2703 Line of Sight (HI/HR): Height of Instrument: 5.04USft
Height of Rod: 4.97USft
2704 Store Point: Point Name: 341
Northing: 1143007.563305USft Easting: 621001.643819USft
Elevation: 221.591955USft Description: CHK146
2705 Cut Sheet: Elevation: 221.591955USft
Design Grade: 221.616
2706 Design Point/Location: Point Name: 146
Northing: 1143007.533USft Easting: 621001.779USft
Elevation: 221.616USft Description: NS
2707 Stakeout Deltas: Delta Northing: -0.030305USft
Delta Easting: 0.135181USft Delta Elevation: 0.024045USft
2708 Stakeout: Occupy Point: 336
Foresight Point: 341 Angle Right: 204.4610 Zenith Angle: 95.4738 Slope Distance: 272.94USft Description: CHK146
2709 Off Center Shot: Angle Right: 120.1146
Zenith Angle: 90.5101 Slope Distance: 530.374USft
2710 Off Center Shot: Left/Right Offset: -2.0USft
Description: Left / Right Offset
2711 Side Shot: Occupy Point: 336
Foresight Point: 342 Angle Right: 119.584811 Zenith Angle: 90.510098 Slope Distance: 530.377771USft Description: B-1123
2712 Note: Date: 03-20-2007 Time: 16:06:57
2713 Occupy Pt: Occupy Point: 336
Northing: 1143077.574404USft Easting: 620739.27861USft
Elevation: 249.075299USft Description: NS
2714 Backsight: Occupy Point: 336
Backsight Point: 9163 Backsight Azimuth: 260.101763 Backsight Circle: 0.0000
2715 Note: Fixed HR at Backsight:4.75 (4.75 + 0.0 Offset), Prism Const.:0.0mm
2716 Note: BS check 336 - 9163:ZE89.5324,SD433.924,HD err= -0.012176, VD err= 0.002111
2717 Note: BS Circle check : angular err= 0.0000
2718 Occupy Pt: Occupy Point: 336
Northing: 1143077.574404USft Easting: 620739.27861USft
Elevation: 249.075299USft Description: NS
2719 Backsight: Occupy Point: 336
Backsight Point: 9163 Backsight Azimuth: 260.101763 Backsight Circle: 0.0000
2720 Note: Fixed HR at Backsight:4.75 (4.75 + 0.0 Offset), Prism Const.:0.0mm

2721 Note: BS check 336 - 9163:ZE89.5322,SD433.924,HD err= -0.012184, VD err= 0.006319
2722 Note: BS Circle check : angular err= 0.0000
2723 Note: RD,BD 1:0.0000
2724 Note: RD,BV 1:180.0005
2725 Note: RD,FV 1:180.0000
2726 Note: RD,ZV 1:
2727 Note: MD,SD 1:
2728 Note: RF,OP336,FP,AR180.0000,ZE,SD,HR4.97,--
2729 Note: RD,FD 1:0.0000
2730 Note: RD,ZD 1:
2731 Note: MD,SD 1:
2732 Note: RF,OP336,FP,AR0.0000,ZE,SD,HR4.97,--
2733 Note: Horizontal Angle Error: 0.0000
2734 Note: Zenith Angle Error: 0.0000
2735 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
2736 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0006
2737 Repeat Directional: Foresight Reverse
Set: 1 Angle: 312.2147
2738 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 269.1910
2739 Multiple Distances: Set: 1
Slope Distance: 445.818USft
2740 Repeat Foresight: Occupy Point: 336
Foresight Point: 343 Angle Right: 312.2147 Zenith Angle: 269.1910 Slope Distance: 445.818USft Height of Rod: 4.97USft Description: NS
2741 Repeat Directional: Foresight Direct
Set: 1 Angle: 132.2140
2742 Repeat Directional: Zenith Direct
Set: 1 Zenith: 90.4052
2743 Multiple Distances: Set: 1
Slope Distance: 445.816USft
2744 Repeat Foresight: Occupy Point: 336
Foresight Point: 343 Angle Right: 132.2140 Zenith Angle: 90.4052 Slope Distance: 445.816USft Height of Rod: 4.97USft Description: NS
2745 Note: Horizontal Angle Error: 0.0001
2746 Note: Zenith Angle Error: 0.0002
2747 Note: Slope Distance Error: 0.002
2748 Note: Horizontal Angle Error compares to the average: 0.0000
2749 Note: Zenith Angle Error compares to the average: 0.0000
2750 Note: Slope Distance Error compares to the average: 0.0
2751 Side Shot: Occupy Point: 336
Foresight Point: 343 Angle Right: 132.21405 Zenith Angle: 90.4051 Slope Distance: 445.817USft Description: NS
2752 Note: Foresight Target:My Prism, HR:4.77 (4.77 + 0.0 Offset), Prism Const.:0.0mm
2753 Occupy Pt: Occupy Point: 343
Northing: 1143453.408867USft Easting: 620979.01428USft
Elevation: 243.847876USft Description: NS
2754 Note: HR:4.77 (4.77 + 0.0 Offset)
2755 Line of Sight (HI/HR): Height of Instrument: 5.22USft
Height of Rod: 4.77USft
2756 Backsight: Occupy Point: 343
Backsight Point: 336 Backsight Azimuth: 212.315813 Backsight Circle: 0.0000
2757 Note: Fixed HR at Backsight:4.77 (4.77 + 0.0 Offset), Prism Const.:0.0mm
2758 Note: BS check 343 - 336:ZE89.2312,SD445.834,HD err= 0.022931, VD err= -0.005
2759 Note: BS Circle check : angular err= 0.0000
2760 Side Shot: Occupy Point: 343

Foresight Point: 344 Angle Right: 0.0000 Zenith
Angle: 89.2312 Slope Distance: 445.832USft Description: CHK336
2761 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
2762 Occupy Pt: Occupy Point: 343
Northing: 1143453.408867USft Easting: 620979.01428USft
Elevation: 243.847876USft Description: NS
2763 Note: HR:4.97 (4.97 + 0.0 Offset)
2764 Line of Sight (HI/HR): Height of Instrument: 5.22USft
Height of Rod: 4.97USft
2765 Backsight: Occupy Point: 343
Backsight Point: 336 Backsight Azimuth: 212.315813 Backsight
Circle: 0.0000
2766 Note: Fixed HR at Backsight:4.77 (4.77 + 0.0 Offset),
Prism Const.:0.0mm
2767 Note: BS check 343 - 336:ZE89.2312,SD445.834,HD err=
0.022931, VD err= -0.005
2768 Note: BS Circle check : angular err= 0.0000
2769 Side Shot: Occupy Point: 343
Foresight Point: 345 Angle Right: 215.5851 Zenith
Angle: 90.2053 Slope Distance: 475.642USft Description: B-1124
2770 Note: Date: 03-20-2007 Time: 16:28:31
2771 Occupy Pt: Occupy Point: 343
Northing: 1143453.408867USft Easting: 620979.01428USft
Elevation: 243.847876USft Description: NS
2772 Backsight: Occupy Point: 343
Backsight Point: 336 Backsight Azimuth: 212.315813 Backsight
Circle: 0.0000
2773 Note: Fixed HR at Backsight:4.77 (4.77 + 0.0 Offset),
Prism Const.:0.0mm
2774 Note: BS check 343 - 336:ZE89.2308,SD445.824,HD err=
0.012838, VD err= 0.003538
2775 Note: BS Circle check : angular err= 0.0000
2776 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
2777 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0007
2778 Repeat Directional: Foresight Reverse
Set: 1 Angle: 359.3715
2779 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 268.5119
2780 Multiple Distances: Set: 1
Slope Distance: 124.012USft
2781 Repeat Foresight: Occupy Point: 343
Foresight Point: 346 Angle Right: 359.3715 Zenith
Angle: 268.5119 Slope Distance: 124.012USft Height of Rod: 4.97USft
Description: NS
2782 Repeat Directional: Foresight Direct
Set: 1 Angle: 179.3711
2783 Repeat Directional: Zenith Direct
Set: 1 Zenith: 91.0847
2784 Multiple Distances: Set: 1
Slope Distance: 124.0USft
2785 Repeat Foresight: Occupy Point: 343
Foresight Point: 346 Angle Right: 179.3711 Zenith
Angle: 91.0847 Slope Distance: 124.0USft Height of Rod: 4.97USft
Description: NS
2786 Note: Horizontal Angle Error: 0.0003
2787 Note: Zenith Angle Error: 0.0006
2788 Note: Slope Distance Error: 0.012
2789 Note: Horizontal Angle Error compares to the average:
0.0000
2790 Note: Zenith Angle Error compares to the average:
0.0000
2791 Note: Slope Distance Error compares to the average: 0.0
2792 Side Shot: Occupy Point: 343
Foresight Point: 346 Angle Right: 179.37095 Zenith

Angle: 91.0844 Slope Distance: 124.006USft Description: NS
2793 Note: Foresight Target:My Prism, HR:4.77 (4.77 + 0.0 Offset), Prism Const.:0.0mm
2794 Occupy Pt: Occupy Point: 346
Northing: 1143558.376098USft Easting: 621044.993232USft
Elevation: 241.618701USft Description: NS
2795 Note: HR:4.77 (4.77 + 0.0 Offset)
2796 Line of Sight (HI/HR): Height of Instrument: 5.19USft
Height of Rod: 4.77USft
2797 Backsight: Occupy Point: 346
Backsight Point: 336 Backsight Azimuth: 212.265991 Backsight Circle: 0.0000
2798 Note: Fixed HR at Backsight:4.77 (4.77 + 0.0 Offset), Prism Const.:0.0mm
2799 Note: BS check 346 - 336:ZE89.1735,SD569.832,HD err= 0.024026, VD err= -0.005899
2800 Note: BS Circle check : angular err= 0.0000
2801 Side Shot: Occupy Point: 346
Foresight Point: 347 Angle Right: 0.0000 Zenith Angle: 89.1735 Slope Distance: 569.832USft Description: CHK336
2802 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
2803 Note: HR:4.97 (4.97 + 0.0 Offset)
2804 Line of Sight (HI/HR): Height of Instrument: 5.19USft
Height of Rod: 4.97USft
2805 Side Shot: Occupy Point: 346
Foresight Point: 348 Angle Right: 234.4535 Zenith Angle: 90.0507 Slope Distance: 583.902USft Description: B-1125
2806 Note: Foresight Target:My Prism, HR:4.77 (4.77 + 0.0 Offset), Prism Const.:0.0mm
2807 Note: HR:4.77 (4.77 + 0.0 Offset)
2808 Line of Sight (HI/HR): Height of Instrument: 5.19USft
Height of Rod: 4.77USft
2809 Side Shot: Occupy Point: 346
Foresight Point: 349 Angle Right: 0.0001 Zenith Angle: 89.1733 Slope Distance: 569.822USft Description: CHK336
2810 Note: Date: 03-20-2007 Time: 17:20:10
2811 Note: Foresight Target:My Prism, HR:5.1 (5.1 + 0.0 Offset), Prism Const.:0.0mm
2812 Occupy Pt: Occupy Point: 9143
Northing: 1143895.325459USft Easting: 619692.808126USft
Elevation: 246.892193USft Description: NS
2813 Note: HR:5.1 (5.1 + 0.0 Offset)
2814 Line of Sight (HI/HR): Height of Instrument: 5.13USft
Height of Rod: 5.1USft
2815 Backsight: Occupy Point: 9143
Backsight Point: 9139 Backsight Azimuth: 73.590513 Backsight Circle: 0.0000
2816 Note: Fixed HR at Backsight:5.1 (5.1 + 0.0 Offset), Prism Const.:0.0mm
2817 Note: BS check 9143 - 9139:ZE88.3851,SD723.276,HD err= 0.044296, VD err= -0.035846
2818 Note: BS Circle check : angular err= 0.0000
2819 Occupy Pt: Occupy Point: 9143
Northing: 1143895.325459USft Easting: 619692.808126USft
Elevation: 246.892193USft Description: NS
2820 Backsight: Occupy Point: 9143
Backsight Point: 9139 Backsight Azimuth: 73.590513 Backsight Circle: 0.0000
2821 Note: Fixed HR at Backsight:5.1 (5.1 + 0.0 Offset), Prism Const.:0.0mm
2822 Note: BS check 9143 - 9139:ZE88.3848,SD723.284,HD err= 0.052046, VD err= -0.025141
2823 Note: BS Circle check : angular err= 0.0000
2824 Note: BS check 9143 - 9139:ZE88.3849,SD723.256,HD err= 0.024136, VD err= -0.029307
2825 Note: BS Circle check : angular err= 0.0000

2826 Note: BS check 9143 - 9139:ZE88.3848,SD723.272,HD err= 0.040049, VD err= -0.025424
2827 Note: BS Circle check : angular err= 0.0000
2828 Note: BS check 9143 - 9139:ZE88.3847,SD723.242,HD err= 0.009975, VD err= -0.022627
2829 Note: BS Circle check : angular err= 0.0001
2830 Note: BS check 9143 - 9139:ZE88.3845,SD723.284,HD err= 0.051797, VD err= -0.014624
2831 Note: BS Circle check : angular err= 0.0000
2832 Note: BS check 9143 - 9139:ZE88.3845,SD723.276,HD err= 0.0438, VD err= -0.014813
2833 Note: BS Circle check : angular err= 0.0000
2834 Side Shot: Occupy Point: 9143
Foresight Point: 350 Angle Right: 0.0000 Zenith Angle: 88.3845 Slope Distance: 723.274USft Description: CHK9139
2835 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
2836 Note: HR:4.97 (4.97 + 0.0 Offset)
2837 Line of Sight (HI/HR): Height of Instrument: 5.13USft
Height of Rod: 4.97USft
2838 Off Center Shot: Angle Right: 60.1241
Zenith Angle: 91.0029 Slope Distance: 253.414USft
2839 Off Center Shot: Left/Right Offset: 1.0USft
Description: Left / Right Offset
2840 Side Shot: Occupy Point: 9143
Foresight Point: 351 Angle Right: 60.261507 Zenith Angle: 91.002897 Slope Distance: 253.415973USft Description: B-6005
2841 Side Shot: Occupy Point: 9143
Foresight Point: 352 Angle Right: 157.0605 Zenith Angle: 93.0819 Slope Distance: 282.488USft Description: B-6004
2842 Off Center Shot: Angle Right: 202.0449
Zenith Angle: 93.3834 Slope Distance: 272.182USft
2843 Off Center Shot: Left/Right Offset: 1.0USft
Description: Left / Right Offset
2844 Side Shot: Occupy Point: 9143
Foresight Point: 353 Angle Right: 202.172835 Zenith Angle: 93.383391 Slope Distance: 272.183837USft Description: B-6003
2845 Note: Date: 03-20-2007 Time: 17:35:58
2846 Side Shot: Occupy Point: 9143
Foresight Point: 354 Angle Right: 270.3444 Zenith Angle: 89.4814 Slope Distance: 247.712USft Description: B-6002
2847 Occupy Pt: Occupy Point: 9143
Northing: 1143895.325459USft Easting: 619692.808126USft
Elevation: 246.892193USft Description: NS
2848 Backsight: Occupy Point: 9143
Backsight Point: 9139 Backsight Azimuth: 73.590513 Backsight Circle: 0.0000
2849 Note: Fixed HR at Backsight:5.1 (5.1 + 0.0 Offset), Prism Const.:0.0mm
2850 Note: BS check 9143 - 9139:ZE88.3843,SD723.274,HD err= 0.041634, VD err= -0.007849
2851 Note: BS Circle check : angular err= 0.0000
2852 Note: Foresight Target:My Prism, HR:4.81 (4.81 + 0.0 Offset), Prism Const.:0.0mm
2853 Note: HR:4.81 (4.81 + 0.0 Offset)
2854 Line of Sight (HI/HR): Height of Instrument: 5.13USft
Height of Rod: 4.81USft
2855 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
2856 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0011
2857 Repeat Directional: Foresight Reverse
Set: 1 Angle: 42.0621
2858 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 266.1022
2859 Multiple Distances: Set: 1
Slope Distance: 191.854USft

2860 Repeat Foresight: Occupy Point: 9143
Foresight Point: 355 Angle Right: 42.0621 Zenith
Angle: 266.1022 Slope Distance: 191.854USft Height of Rod: 4.81USft
Description: NS
2861 Repeat Directional: Foresight Direct
Set: 1 Angle: 222.0613
2862 Repeat Directional: Zenith Direct
Set: 1 Zenith: 93.4937
2863 Multiple Distances: Set: 1
Slope Distance: 191.852USft
2864 Repeat Foresight: Occupy Point: 9143
Foresight Point: 355 Angle Right: 222.0613 Zenith
Angle: 93.4937 Slope Distance: 191.852USft Height of Rod: 4.81USft
Description: NS
2865 Note: Horizontal Angle Error: 0.0003
2866 Note: Zenith Angle Error: 0.0001
2867 Note: Slope Distance Error: 0.002
2868 Note: Horizontal Angle Error compares to the average:
0.0000
2869 Note: Zenith Angle Error compares to the average:
0.0000
2870 Note: Slope Distance Error compares to the average: 0.0
2871 Side Shot: Occupy Point: 9143
Foresight Point: 355 Angle Right: 222.06115 Zenith
Angle: 93.49375 Slope Distance: 191.853USft Description: NS
2872 Note: Foresight Target:My Prism, HR:4.95 (4.95 + 0.0
Offset), Prism Const.:0.0mm
2873 Occupy Pt: Occupy Point: 355
Northing: 1143979.504742USft Easting: 619520.885337USft
Elevation: 234.40686USft Description: NS
2874 Note: HR:4.95 (4.95 + 0.0 Offset)
2875 Line of Sight (HI/HR): Height of Instrument: 5.0USft
Height of Rod: 4.95USft
2876 Backsight: Occupy Point: 355
Backsight Point: 9143 Backsight Azimuth: 116.051663 Backsight
Circle: 0.0000
2877 Note: Fixed HR at Backsight:4.95 (4.95 + 0.0 Offset),
Prism Const.:0.0mm
2878 Note: BS check 355 - 9143:ZE86.1708,SD191.83,HD err=
0.001853, VD err= -0.007841
2879 Note: BS Circle check : angular err= 0.0000
2880 Side Shot: Occupy Point: 355
Foresight Point: 356 Angle Right: 0.0000 Zenith
Angle: 86.1707 Slope Distance: 191.828USft Description: CHK9143
2881 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
2882 Note: HR:4.97 (4.97 + 0.0 Offset)
2883 Line of Sight (HI/HR): Height of Instrument: 5.0USft
Height of Rod: 4.97USft
2884 Side Shot: Occupy Point: 355
Foresight Point: 357 Angle Right: 178.3842 Zenith
Angle: 85.4749 Slope Distance: 268.374USft Description: B-1193
2885 Note: Foresight Target:My Prism, HR:4.95 (4.95 + 0.0
Offset), Prism Const.:0.0mm
2886 Note: HR:4.95 (4.95 + 0.0 Offset)
2887 Line of Sight (HI/HR): Height of Instrument: 5.0USft
Height of Rod: 4.95USft
2888 Side Shot: Occupy Point: 355
Foresight Point: 358 Angle Right: 359.5959 Zenith
Angle: 86.1702 Slope Distance: 191.826USft Description: CHK9143
2889 Occupy Pt: Occupy Point: 9139
Northing: 1144094.804475USft Easting: 620387.77632USft
Elevation: 264.029802USft Description: NS
2890 Note: HR:4.95 (4.95 + 0.0 Offset)
2891 Line of Sight (HI/HR): Height of Instrument: 5.18USft
Height of Rod: 4.95USft
2892 Backsight: Occupy Point: 9139

Backsight Point: 9143 Backsight Azimuth: 253.590513 Backsight Circle: 0.0000
2893 Note: Fixed HR at Backsight:4.95 (4.95 + 0.0 Offset), Prism Const.:0.0mm
2894 Note: BS check 9139 - 9143:ZE91.2237,SD723.276,HD err= 0.036947, VD err= -0.012642
2895 Note: BS Circle check : angular err= 0.0000
2896 Note: BS check 9139 - 9143:ZE91.2232,SD723.272,HD err= 0.033369, VD err= 0.004982
2897 Note: BS Circle check : angular err= 0.0000
2898 Side Shot: Occupy Point: 9139
Foresight Point: 359 Angle Right: 0.0000 Zenith Angle: 91.2232 Slope Distance: 723.272USft Description: CHK9143
2899 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
2900 Note: HR:4.97 (4.97 + 0.0 Offset)
2901 Line of Sight (HI/HR): Height of Instrument: 5.18USft Height of Rod: 4.97USft
2902 Note: Date: 03-20-2007 Time: 18:06:22
2903 Side Shot: Occupy Point: 9139
Foresight Point: 360 Angle Right: 182.2006 Zenith Angle: 93.3407 Slope Distance: 17.312USft Description: NS
2904 Note: Foresight Target:My Prism, HR:4.95 (4.95 + 0.0 Offset), Prism Const.:0.0mm
2905 Note: HR:4.95 (4.95 + 0.0 Offset)
2906 Line of Sight (HI/HR): Height of Instrument: 5.18USft Height of Rod: 4.95USft
2907 Side Shot: Occupy Point: 9139
Foresight Point: 361 Angle Right: 359.5959 Zenith Angle: 91.2230 Slope Distance: 723.266USft Description: CHK4193
2908 Store Point: Point Name: 361
Northing: 1143895.314491USft Easting: 619692.782622USft Elevation: 246.90433USft Description: CHK9143
2909 Occupy Pt: Occupy Point: 360
Northing: 1144098.890878USft Easting: 620404.564576USft Elevation: 263.162238USft Description: NS
2910 Note: HR:4.95 (4.95 + 0.0 Offset)
2911 Line of Sight (HI/HR): Height of Instrument: 4.9USft Height of Rod: 4.95USft
2912 Backsight: Occupy Point: 360
Backsight Point: 9143 Backsight Azimuth: 254.022127 Backsight Circle: 0.0000
2913 Note: Fixed HR at Backsight:4.95 (4.95 + 0.0 Offset), Prism Const.:0.0mm
2914 Note: BS check 360 - 9143:ZE91.1512,SD740.492,HD err= 0.020222, VD err= 0.023227
2915 Note: BS Circle check : angular err= 0.0000
2916 Note: BS check 360 - 9143:ZE91.1518,SD740.49,HD err= 0.017751, VD err= 0.001736
2917 Note: BS Circle check : angular err= 0.0000
2918 Side Shot: Occupy Point: 360
Foresight Point: 362 Angle Right: 0.0000 Zenith Angle: 91.1518 Slope Distance: 740.492USft Description: CHK9143
2919 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
2920 Note: HR:4.97 (4.97 + 0.0 Offset)
2921 Line of Sight (HI/HR): Height of Instrument: 4.9USft Height of Rod: 4.97USft
2922 Side Shot: Occupy Point: 360
Foresight Point: 363 Angle Right: 131.4027 Zenith Angle: 111.2828 Slope Distance: 188.176USft Description: B-6011
2923 Note: Data Collector Serial Number: FS29A13023
2924 Note: Activating Total Station: Nikon TOP GUN [Nikon], COM1, 4800 baud, no parity
2925 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
2926 Note: Date: 03-21-2007 Time: 08:22:13

2927 Note: Foresight Target:My Prism, HR:5.16 (5.16 + 0.0 Offset), Prism Const.:0.0mm
2928 Occupy Pt: Occupy Point: 9137 Northing: 1143987.330517USft Easting: 620559.60905USft Elevation: 264.239505USft Description: NS
2929 Note: HR:5.16 (5.16 + 0.0 Offset)
2930 Line of Sight (HI/HR): Height of Instrument: 5.25USft Height of Rod: 5.16USft
2931 Backsight: Occupy Point: 9137 Backsight Point: 9139 Backsight Azimuth: 302.012713 Backsight Circle: 0.0000
2932 Note: Fixed HR at Backsight:5.16 (5.16 + 0.0 Offset), Prism Const.:0.0mm
2933 Note: BS check 9137 - 9139:ZE90.0450,SD202.676,HD err= 0.000841, VD err= 0.014748
2934 Note: BS Circle check : angular err= 0.0000
2935 Side Shot: Occupy Point: 9137 Foresight Point: 364 Angle Right: 0.0000 Zenith Angle: 90.0452 Slope Distance: 202.674USft Description: CHK9139
2936 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
2937 Occupy Pt: Occupy Point: 9137 Northing: 1143987.330517USft Easting: 620559.60905USft Elevation: 264.239505USft Description: NS
2938 Note: HR:4.97 (4.97 + 0.0 Offset)
2939 Line of Sight (HI/HR): Height of Instrument: 5.25USft Height of Rod: 4.97USft
2940 Backsight: Occupy Point: 9137 Backsight Point: 9139 Backsight Azimuth: 302.012713 Backsight Circle: 0.0000
2941 Note: Fixed HR at Backsight:5.16 (5.16 + 0.0 Offset), Prism Const.:0.0mm
2942 Note: BS check 9137 - 9139:ZE90.0448,SD202.672,HD err= -0.003156, VD err= 0.016719
2943 Note: BS Circle check : angular err= 0.0000
2944 Repeat Directional: Backsight Direct Set: 1 Angle: 0.0000
2945 Repeat Directional: Backsight Reverse Set: 1 Angle: 180.0002
2946 Repeat Directional: Foresight Reverse Set: 1 Angle: 271.4913
2947 Repeat Directional: Zenith Reverse Set: 1 Zenith: 268.5317
2948 Multiple Distances: Set: 1 Slope Distance: 161.318USft
2949 Repeat Foresight: Occupy Point: 9137 Foresight Point: 365 Angle Right: 271.4913 Zenith Angle: 268.5317 Slope Distance: 161.318USft Height of Rod: 4.97USft Description: NS
2950 Repeat Directional: Foresight Direct Set: 1 Angle: 91.4911
2951 Repeat Directional: Zenith Direct Set: 1 Zenith: 91.0645
2952 Multiple Distances: Set: 1 Slope Distance: 161.316USft
2953 Repeat Foresight: Occupy Point: 9137 Foresight Point: 365 Angle Right: 91.4911 Zenith Angle: 91.0645 Slope Distance: 161.316USft Height of Rod: 4.97USft Description: NS
2954 Note: Horizontal Angle Error: 0.0000
2955 Note: Zenith Angle Error: 0.0002
2956 Note: Slope Distance Error: 0.002
2957 Note: Horizontal Angle Error compares to the average: 0.0000
2958 Note: Zenith Angle Error compares to the average: 0.0000
2959 Note: Slope Distance Error compares to the average: 0.0

2960 Side Shot: Occupy Point: 9137
Foresight Point: 365 Angle Right: 91.4911 Zenith
Angle: 91.0644 Slope Distance: 161.317USft Description: NS
2961 Note: Foresight Target:My Prism, HR:5.01 (5.01 + 0.0
Offset), Prism Const.:0.0mm
2962 Occupy Pt: Occupy Point: 9139
Northing: 1144094.804475USft Easting: 620387.77632USft
Elevation: 264.029802USft Description: NS
2963 Note: HR:5.01 (5.01 + 0.0 Offset)
2964 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 5.01USft
2965 Backsight: Occupy Point: 9139
Backsight Point: 9137 Backsight Azimuth: 122.012713 Backsight
Circle: 0.0000
2966 Note: Fixed HR at Backsight:5.01 (5.01 + 0.0 Offset),
Prism Const.:0.0mm
2967 Note: BS check 9139 - 9137:ZE90.0125,SD202.68,HD err=
0.005024, VD err= -0.003225
2968 Note: BS Circle check : angular err= 0.0000
2969 Side Shot: Occupy Point: 9139
Foresight Point: 366 Angle Right: 0.0000 Zenith
Angle: 90.0123 Slope Distance: 202.678USft Description: CHK9137
2970 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
2971 Note: HR:4.97 (4.97 + 0.0 Offset)
2972 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 4.97USft
2973 Off Center Shot: Angle Right: 99.5033
Zenith Angle: 93.1122 Slope Distance: 258.258USft
2974 Off Center Shot: Left/Right Offset: -2.0USft
Description: Left / Right Offset
2975 Side Shot: Occupy Point: 9139
Foresight Point: 367 Angle Right: 99.23532 Zenith
Angle: 93.112166 Slope Distance: 258.265744USft Description: B-1113
2976 Note: Date: 03-21-2007 Time: 08:50:29
2977 Note: Foresight Target:My Prism, HR:5.01 (5.01 + 0.0
Offset), Prism Const.:0.0mm
2978 Occupy Pt: Occupy Point: 365
Northing: 1144121.288358USft Easting: 620649.434805USft
Elevation: 261.388226USft Description: NS
2979 Note: HR:5.01 (5.01 + 0.0 Offset)
2980 Line of Sight (HI/HR): Height of Instrument: 5.26USft
Height of Rod: 5.01USft
2981 Backsight: Occupy Point: 365
Backsight Point: 9137 Backsight Azimuth: 213.503813 Backsight
Circle: 0.0000
2982 Note: Fixed HR at Backsight:5.01 (5.01 + 0.0 Offset),
Prism Const.:0.0mm
2983 Note: BS check 365 - 9137:ZE89.0409,SD161.334,HD err=
0.026103, VD err= 0.019655
2984 Note: BS Circle check : angular err= 0.0000
2985 Side Shot: Occupy Point: 365
Foresight Point: 368 Angle Right: 0.0000 Zenith
Angle: 89.0410 Slope Distance: 161.332USft Description: CHK9137
2986 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
2987 Note: HR:4.97 (4.97 + 0.0 Offset)
2988 Line of Sight (HI/HR): Height of Instrument: 5.26USft
Height of Rod: 4.97USft
2989 Side Shot: Occupy Point: 365
Foresight Point: 369 Angle Right: 146.1103 Zenith
Angle: 97.0822 Slope Distance: 297.596USft Description: B-1142
2990 Store Point: Point Name: 369
Northing: 1144416.576945USft Easting: 620649.579581USft
Elevation: 224.691625USft Description: B-1142ALT
2991 Note: Foresight Target:My Prism, HR:5.01 (5.01 + 0.0
Offset), Prism Const.:0.0mm

2992 Note: HR:5.01 (5.01 + 0.0 Offset)
2993 Line of Sight (HI/HR): Height of Instrument: 5.26USft
Height of Rod: 5.01USft
2994 Side Shot: Occupy Point: 365
Foresight Point: 370 Angle Right: 0.0005 Zenith
Angle: 89.0413 Slope Distance: 161.332USft Description: CHK9137
2995 Note: Date: 03-21-2007 Time: 09:05:33
2996 Note: Foresight Target:My Prism, HR:5.05 (5.05 + 0.0
Offset), Prism Const.:0.0mm
2997 Occupy Pt: Occupy Point: 9134
Northing: 1144136.398256USft Easting: 621210.26466USft
Elevation: 271.393846USft Description: NS
2998 Note: HR:5.05 (5.05 + 0.0 Offset)
2999 Line of Sight (HI/HR): Height of Instrument: 5.02USft
Height of Rod: 5.05USft
3000 Backsight: Occupy Point: 9134
Backsight Point: 9137 Backsight Azimuth: 257.054563 Backsight
Circle: 0.0000
3001 Note: Fixed HR at Backsight:5.05 (5.05 + 0.0 Offset),
Prism Const.:0.0mm
3002 Note: Date: 03-21-2007 Time: 09:42:33
3003 Note: BS check 9134 - 9137:ZE90.3641,SD667.554,HD err=
0.002763, VD err= 0.001175
3004 Note: BS Circle check : angular err= 0.0000
3005 Side Shot: Occupy Point: 9134
Foresight Point: 371 Angle Right: 0.0000 Zenith
Angle: 90.3641 Slope Distance: 667.55USft Description: CHK9137
3006 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
3007 Note: HR:4.97 (4.97 + 0.0 Offset)
3008 Line of Sight (HI/HR): Height of Instrument: 5.02USft
Height of Rod: 4.97USft
3009 Side Shot: Occupy Point: 9134
Foresight Point: 372 Angle Right: 314.4550 Zenith
Angle: 91.3647 Slope Distance: 286.282USft Description: B-6010
3010 Occupy Pt: Occupy Point: 9134
Northing: 1144136.398256USft Easting: 621210.26466USft
Elevation: 271.393846USft Description: NS
3011 Backsight: Occupy Point: 9134
Backsight Point: 9137 Backsight Azimuth: 257.054563 Backsight
Circle: 0.0000
3012 Note: Fixed HR at Backsight:5.05 (5.05 + 0.0 Offset),
Prism Const.:0.0mm
3013 Note: BS check 9134 - 9137:ZE90.3637,SD667.554,HD err=
0.002901, VD err= 0.01412
3014 Note: BS Circle check : angular err= 0.0000
3015 Note: BS check 9134 - 9137:ZE90.3637,SD667.552,HD err=
0.000902, VD err= 0.014141
3016 Note: BS Circle check : angular err= 0.0000
3017 Note: BS check 9134 - 9137:ZE90.3635,SD667.55,HD err= -
0.001029, VD err= 0.020635
3018 Note: BS Circle check : angular err= 0.0000
3019 Note: BS check 9134 - 9137:ZE90.3633,SD667.552,HD err=
0.001039, VD err= 0.027086
3020 Note: BS Circle check : angular err= 0.0000
3021 Note: BS check 9134 - 9137:ZE90.3633,SD667.556,HD err=
0.005039, VD err= 0.027043
3022 Note: BS Circle check : angular err= 0.0000
3023 Note: BS check 9134 - 9137:ZE90.3633,SD667.552,HD err=
0.001039, VD err= 0.027086
3024 Note: BS Circle check : angular err= 0.0000
3025 Note: BS check 9134 - 9137:ZE90.3633,SD667.552,HD err=
0.001039, VD err= 0.027086
3026 Note: BS Circle check : angular err= 0.0000
3027 Note: BS check 9134 - 9137:ZE90.3643,SD667.552,HD err=
0.000694, VD err= -0.005276
3028 Note: BS Circle check : angular err= 0.0000

3029 Note: Foresight Target:My Prism, HR:4.95 (4.95 + 0.0 Offset), Prism Const.:0.0mm
3030 Note: HR:4.95 (4.95 + 0.0 Offset)
3031 Line of Sight (HI/HR): Height of Instrument: 5.02USft Height of Rod: 4.95USft
3032 Note: Date: 03-21-2007 Time: 09:57:37
3033 Repeat Directional: Backsight Direct Set: 1 Angle: 0.0000
3034 Repeat Directional: Backsight Reverse Set: 1 Angle: 180.0002
3035 Repeat Directional: Foresight Reverse Set: 1 Angle: 314.0333
3036 Repeat Directional: Zenith Reverse Set: 1 Zenith: 270.1228
3037 Multiple Distances: Set: 1 Slope Distance: 264.202USft
3038 Repeat Foresight: Occupy Point: 9134 Foresight Point: 373 Angle Right: 314.0333 Zenith Angle: 270.1228 Slope Distance: 264.202USft Height of Rod: 4.95USft Description: NS
3039 Repeat Directional: Foresight Direct Set: 1 Angle: 134.0332
3040 Repeat Directional: Zenith Direct Set: 1 Zenith: 89.4735
3041 Multiple Distances: Set: 1 Slope Distance: 264.2USft
3042 Repeat Foresight: Occupy Point: 9134 Foresight Point: 373 Angle Right: 134.0332 Zenith Angle: 89.4735 Slope Distance: 264.2USft Height of Rod: 4.95USft Description: NS
3043 Note: Horizontal Angle Error: 0.0001
3044 Note: Zenith Angle Error: 0.0003
3045 Note: Slope Distance Error: 0.002
3046 Note: Horizontal Angle Error compares to the average: 0.0000
3047 Note: Zenith Angle Error compares to the average: 0.0000
3048 Note: Slope Distance Error compares to the average: 0.0
3049 Side Shot: Occupy Point: 9134 Foresight Point: 373 Angle Right: 134.03315 Zenith Angle: 89.47335 Slope Distance: 264.201USft Description: NS
3050 Note: Foresight Target:My Prism, HR:4.96 (4.96 + 0.0 Offset), Prism Const.:0.0mm
3051 Occupy Pt: Occupy Point: 373 Northing: 1144362.492868USft Easting: 621346.948531USft Elevation: 272.420023USft Description: NS
3052 Note: HR:4.96 (4.96 + 0.0 Offset)
3053 Line of Sight (HI/HR): Height of Instrument: 5.22USft Height of Rod: 4.96USft
3054 Backsight: Occupy Point: 373 Backsight Point: 9134 Backsight Azimuth: 211.091713 Backsight Circle: 0.0000
3055 Note: Fixed HR at Backsight:4.96 (4.96 + 0.0 Offset), Prism Const.:0.0mm
3056 Note: BS check 373 - 9134:ZE90.1642,SD264.202,HD err= -0.000387, VD err= 0.002733
3057 Note: BS Circle check : angular err= 0.0000
3058 Side Shot: Occupy Point: 373 Foresight Point: 374 Angle Right: 0.0000 Zenith Angle: 90.1642 Slope Distance: 264.202USft Description: CHK9134
3059 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
3060 Note: HR:4.97 (4.97 + 0.0 Offset)
3061 Line of Sight (HI/HR): Height of Instrument: 5.22USft Height of Rod: 4.97USft
3062 Side Shot: Occupy Point: 373 Foresight Point: 375 Angle Right: 136.2701 Zenith

Angle: 94.3539 Slope Distance: 63.18USft Description: C-1102
3063 Side Shot: Occupy Point: 373
Foresight Point: 376 Angle Right: 125.1715 Zenith
Angle: 97.3933 Slope Distance: 215.136USft Description: B-6011
3064 Store Point: Point Name: 363
Northing: 1144256.663403USft Easting: 620480.540843USft
Elevation: 194.203602USft Description: B-6012
3065 Note: Foresight Target:My Prism, HR:4.6 (4.6 + 0.0
Offset), Prism Const.:0.0mm
3066 Note: Foresight Target:My Prism, HR:4.96 (4.96 + 0.0
Offset), Prism Const.:0.0mm
3067 Note: Date: 03-21-2007 Time: 10:25:16
3068 Note: HR:4.96 (4.96 + 0.0 Offset)
3069 Line of Sight (HI/HR): Height of Instrument: 5.22USft
Height of Rod: 4.96USft
3070 Side Shot: Occupy Point: 373
Foresight Point: 377 Angle Right: 359.5957 Zenith
Angle: 90.1640 Slope Distance: 264.2USft Description: CHK9134
3071 Note: Foresight Target:My Prism, HR:5.09 (5.09 + 0.0
Offset), Prism Const.:0.0mm
3072 Occupy Pt: Occupy Point: 172
Northing: 1144830.997USft Easting: 621990.458USft
Elevation: 238.886USft Description: NS
3073 Note: HR:5.09 (5.09 + 0.0 Offset)
3074 Line of Sight (HI/HR): Height of Instrument: 5.22USft
Height of Rod: 5.09USft
3075 Backsight: Occupy Point: 172
Backsight Point: 21 Backsight Azimuth: 350.143373 Backsight
Circle: 0.0000
3076 Note: Fixed HR at Backsight:5.09 (5.09 + 0.0 Offset),
Prism Const.:0.0mm
3077 Note: BS check 172 - 21:ZE90.0724,SD371.612,HD err=
0.010038, VD err= 0.033079
3078 Note: BS Circle check : angular err= 0.0000
3079 Note: BS check 172 - 21:ZE90.0729,SD371.608,HD err=
0.006018, VD err= 0.024079
3080 Note: BS Circle check : angular err= 0.0000
3081 Side Shot: Occupy Point: 172
Foresight Point: 378 Angle Right: 0.0000 Zenith
Angle: 90.0730 Slope Distance: 371.604USft Description: CHK21
3082 Note: Date: 03-21-2007 Time: 11:19:01
3083 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
3084 Note: HR:4.97 (4.97 + 0.0 Offset)
3085 Line of Sight (HI/HR): Height of Instrument: 5.22USft
Height of Rod: 4.97USft
3086 Side Shot: Occupy Point: 172
Foresight Point: 379 Angle Right: 266.2702 Zenith
Angle: 88.2439 Slope Distance: 249.06USft Description: B-6009
3087 Side Shot: Occupy Point: 172
Foresight Point: 380 Angle Right: 24.1932 Zenith
Angle: 90.4816 Slope Distance: 186.632USft Description: C-1103
3088 Note: Foresight Target:My Prism, HR:5.09 (5.09 + 0.0
Offset), Prism Const.:0.0mm
3089 Note: HR:5.09 (5.09 + 0.0 Offset)
3090 Line of Sight (HI/HR): Height of Instrument: 5.22USft
Height of Rod: 5.09USft
3091 Side Shot: Occupy Point: 172
Foresight Point: 381 Angle Right: 0.0003 Zenith
Angle: 90.0727 Slope Distance: 371.612USft Description: CHK21
3092 Occupy Pt: Occupy Point: 23
Northing: 1145666.8682USft Easting: 622037.046USft
Elevation: 237.279USft Description: #4RS
3093 Note: HR:5.09 (5.09 + 0.0 Offset)
3094 Line of Sight (HI/HR): Height of Instrument: 5.09USft
Height of Rod: 5.09USft
3095 Backsight: Occupy Point: 23

Backsight Point: 21 Backsight Azimuth: 193.075463 Backsight Circle: 0.0000
3096 Note: Fixed HR at Backsight:5.09 (5.09 + 0.0 Offset), Prism Const.:0.0mm
3097 Note: BS check 23 - 21:ZE89.5330,SD482.27,HD err= 0.01256, VD err= 0.007863
3098 Note: BS Circle check : angular err= 0.0000
3099 Side Shot: Occupy Point: 23
Foresight Point: 382 Angle Right: 0.0000 Zenith Angle: 89.5330 Slope Distance: 482.276USft Description: CHK21
3100 Note: Date: 03-21-2007 Time: 11:44:52
3101 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
3102 Note: HR:4.97 (4.97 + 0.0 Offset)
3103 Line of Sight (HI/HR): Height of Instrument: 5.09USft Height of Rod: 4.97USft
3104 Side Shot: Occupy Point: 23
Foresight Point: 383 Angle Right: 276.0606 Zenith Angle: 89.4614 Slope Distance: 677.108USft Description: B-6008
3105 Note: Foresight Target:My Prism, HR:5.09 (5.09 + 0.0 Offset), Prism Const.:0.0mm
3106 Note: HR:5.09 (5.09 + 0.0 Offset)
3107 Line of Sight (HI/HR): Height of Instrument: 5.09USft Height of Rod: 5.09USft
3108 Side Shot: Occupy Point: 23
Foresight Point: 384 Angle Right: 359.5957 Zenith Angle: 89.5336 Slope Distance: 482.272USft Description: CHK21
3109 Note: Foresight Target:My Prism, HR:6.0 (6.0 + 0.0 Offset), Prism Const.:0.0mm
3110 Occupy Pt: Occupy Point: 103
Northing: 1147554.052416USft Easting: 622478.488412USft Elevation: 222.662545USft Description: NS
3111 Note: HR:6.0 (6.0 + 0.0 Offset)
3112 Line of Sight (HI/HR): Height of Instrument: 5.14USft Height of Rod: 6.0USft
3113 Backsight: Occupy Point: 103
Backsight Point: 105 Backsight Azimuth: 7.493662 Backsight Circle: 0.0000
3114 Note: Fixed HR at Backsight:6.0 (6.0 + 0.0 Offset), Prism Const.:0.0mm
3115 Note: BS check 103 - 105:ZE90.0533,SD382.902,HD err= 362.445603, VD err= 0.074706
3116 Note: BS Circle check : angular err= 0.0000
3117 Occupy Pt: Occupy Point: 103
Northing: 1147554.052416USft Easting: 622478.488412USft Elevation: 222.662545USft Description: NS
3118 Backsight: Occupy Point: 103
Backsight Point: 106 Backsight Azimuth: 240.014512 Backsight Circle: 0.0000
3119 Note: Fixed HR at Backsight:6.0 (6.0 + 0.0 Offset), Prism Const.:0.0mm
3120 Note: BS check 103 - 106:ZE90.0536,SD382.886,HD err= 0.019917, VD err= -0.031266
3121 Note: BS Circle check : angular err= 0.0001
3122 Note: BS check 103 - 106:ZE90.0523,SD382.868,HD err= 0.001955, VD err= -0.007106
3123 Note: BS Circle check : angular err= 0.0001
3124 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
3125 Note: HR:4.97 (4.97 + 0.0 Offset)
3126 Line of Sight (HI/HR): Height of Instrument: 5.14USft Height of Rod: 4.97USft
3127 Side Shot: Occupy Point: 103
Foresight Point: 385 Angle Right: 119.3533 Zenith Angle: 96.0759 Slope Distance: 20.912USft Description: B-1195
3128 Note: Foresight Target:My Prism, HR:6.0 (6.0 + 0.0 Offset), Prism Const.:0.0mm

3129 Note: Date: 03-21-2007 Time: 12:56:53
3130 Note: HR:6.0 (6.0 + 0.0 Offset)
3131 Line of Sight (HI/HR): Height of Instrument: 5.14USft
Height of Rod: 6.0USft
3132 Side Shot: Occupy Point: 103
Foresight Point: 386 Angle Right: 0.0003 Zenith
Angle: 90.0539 Slope Distance: 382.892USft Description: CHK106
3133 Note: Foresight Target:My Prism, HR:5.45 (5.45 + 0.0
Offset), Prism Const.:0.0mm
3134 Occupy Pt: Occupy Point: 106
Northing: 1147362.788633USft Easting: 622146.81958USft
Elevation: 221.2101USft Description: NS
3135 Note: HR:5.45 (5.45 + 0.0 Offset)
3136 Line of Sight (HI/HR): Height of Instrument: 5.22USft
Height of Rod: 5.45USft
3137 Backsight: Occupy Point: 106
Backsight Point: 103 Backsight Azimuth: 60.014512 Backsight
Circle: 0.0000
3138 Note: Fixed HR at Backsight:5.45 (5.45 + 0.0 Offset),
Prism Const.:0.0mm
3139 Note: BS check 106 - 103:ZE89.4441,SD382.88,HD err=
0.010624, VD err= 0.023447
3140 Note: BS Circle check : angular err= 0.0000
3141 Side Shot: Occupy Point: 106
Foresight Point: 387 Angle Right: 0.0000 Zenith
Angle: 89.4442 Slope Distance: 382.882USft Description: CHK103
3142 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
3143 Note: HR:4.97 (4.97 + 0.0 Offset)
3144 Line of Sight (HI/HR): Height of Instrument: 5.22USft
Height of Rod: 4.97USft
3145 Side Shot: Occupy Point: 106
Foresight Point: 388 Angle Right: 179.2823 Zenith
Angle: 91.3015 Slope Distance: 150.126USft Description: B-119
3146 Side Shot: Occupy Point: 106
Foresight Point: 389 Angle Right: 225.1942 Zenith
Angle: 92.2148 Slope Distance: 536.262USft Description: B-1194
3147 Store Point: Point Name: 388
Northing: 1147286.625274USft Easting: 622017.508215USft
Elevation: 217.519346USft Description: B-1196
3148 Side Shot: Occupy Point: 106
Foresight Point: 390 Angle Right: 136.1807 Zenith
Angle: 87.1658 Slope Distance: 509.142USft Description: B-1197
3149 Occupy Pt: Occupy Point: 106
Northing: 1147362.788633USft Easting: 622146.81958USft
Elevation: 221.2101USft Description: NS
3150 Backsight: Occupy Point: 106
Backsight Point: 103 Backsight Azimuth: 60.014512 Backsight
Circle: 0.0000
3151 Note: Fixed HR at Backsight:5.45 (5.45 + 0.0 Offset),
Prism Const.:0.0mm
3152 Note: BS check 106 - 103:ZE89.4436,SD382.886,HD err=
0.016583, VD err= 0.032755
3153 Note: BS Circle check : angular err= 0.0000
3154 Note: BS check 106 - 103:ZE89.4437,SD382.884,HD err=
0.014591, VD err= 0.03089
3155 Note: BS Circle check : angular err= 0.0000
3156 Note: Date: 03-21-2007 Time: 13:21:06
3157 Note: BS check 106 - 103:ZE89.4444,SD382.878,HD err=
0.008649, VD err= 0.01787
3158 Note: BS Circle check : angular err= 0.0000
3159 Occupy Pt: Occupy Point: 106
Northing: 1147362.788633USft Easting: 622146.81958USft
Elevation: 221.2101USft Description: NS
3160 Backsight: Occupy Point: 106
Backsight Point: 103 Backsight Azimuth: 60.014512 Backsight
Circle: 0.0000

3161 Note: Fixed HR at Backsight:5.45 (5.45 + 0.0 Offset), Prism Const.:0.0mm
3162 Note: BS check 106 - 103:ZE89.4448,SD382.884,HD err= 0.014682, VD err= 0.010471
3163 Note: BS Circle check : angular err= 0.0000
3164 Note: Foresight Target:My Prism, HR:5.02 (5.02 + 0.0 Offset), Prism Const.:0.0mm
3165 Note: HR:5.02 (5.02 + 0.0 Offset)
3166 Line of Sight (HI/HR): Height of Instrument: 5.22USft Height of Rod: 5.02USft
3167 Repeat Directional: Backsight Direct Set: 1 Angle: 0.0000
3168 Repeat Directional: Backsight Reverse Set: 1 Angle: 180.0005
3169 Repeat Directional: Foresight Reverse Set: 1 Angle: 300.0242
3170 Repeat Directional: Zenith Reverse Set: 1 Zenith: 272.5302
3171 Multiple Distances: Set: 1 Slope Distance: 630.87USft
3172 Repeat Foresight: Occupy Point: 106 Foresight Point: 391 Angle Right: 300.0242 Zenith Angle: 272.5302 Slope Distance: 630.87USft Height of Rod: 5.02USft Description: NS
3173 Repeat Directional: Foresight Direct Set: 1 Angle: 120.0237
3174 Repeat Directional: Zenith Direct Set: 1 Zenith: 87.0708
3175 Multiple Distances: Set: 1 Slope Distance: 630.866USft
3176 Repeat Foresight: Occupy Point: 106 Foresight Point: 391 Angle Right: 120.0237 Zenith Angle: 87.0708 Slope Distance: 630.866USft Height of Rod: 5.02USft Description: NS
3177 Note: Horizontal Angle Error: 0.0000
3178 Note: Zenith Angle Error: 0.0010
3179 Note: Slope Distance Error: 0.004
3180 Note: Horizontal Angle Error compares to the average: 0.0000
3181 Note: Zenith Angle Error compares to the average: 0.0000
3182 Note: Slope Distance Error compares to the average: 0.0
3183 Side Shot: Occupy Point: 106 Foresight Point: 391 Angle Right: 120.0237 Zenith Angle: 87.0703 Slope Distance: 630.868USft Description: NS
3184 Note: Foresight Target:My Prism, HR:4.84 (4.84 + 0.0 Offset), Prism Const.:0.0mm
3185 Occupy Pt: Occupy Point: 391 Northing: 1146732.719339USft Easting: 622146.018893USft Elevation: 253.135125USft Description: NS
3186 Note: HR:4.84 (4.84 + 0.0 Offset)
3187 Line of Sight (HI/HR): Height of Instrument: 5.06USft Height of Rod: 4.84USft
3188 Backsight: Occupy Point: 391 Backsight Point: 106 Backsight Azimuth: 0.042212 Backsight Circle: 0.0000
3189 Note: Fixed HR at Backsight:4.84 (4.84 + 0.0 Offset), Prism Const.:0.0mm
3190 Note: BS check 391 - 106:ZE92.5541,SD630.896,HD err= 0.00254, VD err= -0.082385
3191 Note: BS Circle check : angular err= 0.0000
3192 Note: BS check 391 - 106:ZE92.5534,SD630.896,HD err= 0.003633, VD err= -0.061002
3193 Note: BS Circle check : angular err= 0.0000
3194 Note: BS check 391 - 106:ZE92.5534,SD630.9,HD err= 0.007628, VD err= -0.061207
3195 Note: BS Circle check : angular err= 0.0000

3196 Note: Foresight Target:My Prism, HR:4.87 (4.87 + 0.0 Offset), Prism Const.:0.0mm
3197 Occupy Pt: Occupy Point: 391 Northing: 1146732.719339USft Easting: 622146.018893USft Elevation: 253.135125USft Description: NS
3198 Note: HR:4.87 (4.87 + 0.0 Offset)
3199 Line of Sight (HI/HR): Height of Instrument: 5.06USft Height of Rod: 4.87USft
3200 Backsight: Occupy Point: 391 Backsight Point: 106 Backsight Azimuth: 0.042212 Backsight Circle: 0.0000
3201 Note: Fixed HR at Backsight:4.87 (4.87 + 0.0 Offset), Prism Const.:0.0mm
3202 Note: BS check 391 - 106:ZE92.5534,SD630.902,HD err= 0.009625, VD err= -0.091309
3203 Note: BS Circle check : angular err= 0.0000
3204 Note: Foresight Target:My Prism, HR:4.84 (4.84 + 0.0 Offset), Prism Const.:0.0mm
3205 Occupy Pt: Occupy Point: 391 Northing: 1146732.719339USft Easting: 622146.018893USft Elevation: 253.135125USft Description: NS
3206 Note: HR:4.84 (4.84 + 0.0 Offset)
3207 Line of Sight (HI/HR): Height of Instrument: 5.06USft Height of Rod: 4.84USft
3208 Backsight: Occupy Point: 391 Backsight Point: 106 Backsight Azimuth: 0.042212 Backsight Circle: 0.0000
3209 Note: Fixed HR at Backsight:4.84 (4.84 + 0.0 Offset), Prism Const.:0.0mm
3210 Note: BS check 391 - 106:ZE92.5532,SD630.9,HD err= 0.00794, VD err= -0.055097
3211 Note: BS Circle check : angular err= 0.0000
3212 Occupy Pt: Occupy Point: 391 Northing: 1146732.719339USft Easting: 622146.018893USft Elevation: 253.135125USft Description: NS
3213 Backsight: Occupy Point: 391 Backsight Point: 106 Backsight Azimuth: 0.042212 Backsight Circle: 0.0000
3214 Note: Fixed HR at Backsight:4.84 (4.84 + 0.0 Offset), Prism Const.:0.0mm
3215 Note: BS check 391 - 106:ZE92.5531,SD630.904,HD err= 0.012091, VD err= -0.052247
3216 Note: BS Circle check : angular err= 0.0000
3217 Note: Date: 03-21-2007 Time: 13:45:34
3218 Remote Elevation: Occupy Point: 391 Foresight Elevation: 221.2101USft Zenith Angle: 92.5531 Slope Distance: 630.902USft Description: Remote elev
3219 Store Point: Point Name: 391 Northing: 1146732.719339USft Easting: 622146.018893USft Elevation: 253.187269USft Description: NS
3220 Occupy Pt: Occupy Point: 391 Northing: 1146732.719339USft Easting: 622146.018893USft Elevation: 253.187269USft Description: NS
3221 Backsight: Occupy Point: 391 Backsight Point: 106 Backsight Azimuth: 0.042212 Backsight Circle: 0.0000
3222 Note: Fixed HR at Backsight:4.84 (4.84 + 0.0 Offset), Prism Const.:0.0mm
3223 Note: BS check 391 - 106:ZE92.5528,SD630.902,HD err= 0.010562, VD err= 0.009164
3224 Note: BS Circle check : angular err= 0.0000
3225 Side Shot: Occupy Point: 391 Foresight Point: 392 Angle Right: 0.0000 Zenith Angle: 92.5528 Slope Distance: 630.9USft Description: CHK106
3226 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
3227 Note: HR:4.97 (4.97 + 0.0 Offset)

3228 Line of Sight (HI/HR): Height of Instrument: 5.06USft
Height of Rod: 4.97USft
3229 Side Shot: Occupy Point: 391
Foresight Point: 393 Angle Right: 84.0558 Zenith
Angle: 90.4409 Slope Distance: 201.184USft Description: C-1111
3230 Occupy Pt: Occupy Point: 391
Northing: 1146732.719339USft Easting: 622146.018893USft
Elevation: 253.187269USft Description: NS
3231 Backsight: Occupy Point: 391
Backsight Point: 106 Backsight Azimuth: 0.042212 Backsight
Circle: 0.0000
3232 Note: Fixed HR at Backsight:4.84 (4.84 + 0.0 Offset),
Prism Const.:0.0mm
3233 Note: BS check 391 - 106:ZE92.5539,SD630.892,HD err= -
0.001142, VD err= -0.023927
3234 Note: BS Circle check : angular err= 0.0000
3235 Note: BS check 391 - 106:ZE92.5539,SD630.894,HD err=
0.000855, VD err= -0.024029
3236 Note: BS Circle check : angular err= 0.0001
3237 Note: BS check 391 - 106:ZE92.5537,SD630.892,HD err= -
0.00083, VD err= -0.017818
3238 Note: BS Circle check : angular err= 0.0001
3239 Note: Foresight Target:My Prism, HR:5.1 (5.1 + 0.0
Offset), Prism Const.:0.0mm
3240 Note: HR:5.1 (5.1 + 0.0 Offset)
3241 Line of Sight (HI/HR): Height of Instrument: 5.06USft
Height of Rod: 5.1USft
3242 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
3243 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0005
3244 Repeat Directional: Foresight Reverse
Set: 1 Angle: 290.1515
3245 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 268.3713
3246 Multiple Distances: Set: 1
Slope Distance: 274.292USft
3247 Repeat Foresight: Occupy Point: 391
Foresight Point: 394 Angle Right: 290.1515 Zenith
Angle: 268.3713 Slope Distance: 274.292USft Height of Rod: 5.1USft
Description: NS
3248 Repeat Directional: Foresight Direct
Set: 1 Angle: 110.1512
3249 Repeat Directional: Zenith Direct
Set: 1 Zenith: 91.2244
3250 Multiple Distances: Set: 1
Slope Distance: 274.288USft
3251 Repeat Foresight: Occupy Point: 391
Foresight Point: 394 Angle Right: 110.1512 Zenith
Angle: 91.2244 Slope Distance: 274.288USft Height of Rod: 5.1USft
Description: NS
3252 Note: Horizontal Angle Error: 0.0002
3253 Note: Zenith Angle Error: 0.0003
3254 Note: Slope Distance Error: 0.004
3255 Note: Horizontal Angle Error compares to the average:
0.0000
3256 Note: Zenith Angle Error compares to the average:
0.0000
3257 Note: Slope Distance Error compares to the average: 0.0
3258 Side Shot: Occupy Point: 391
Foresight Point: 394 Angle Right: 110.1511 Zenith
Angle: 91.22455 Slope Distance: 274.29USft Description: NS
3259 Occupy Pt: Occupy Point: 391
Northing: 1146732.719339USft Easting: 622146.018893USft
Elevation: 253.187269USft Description: NS
3260 Backsight: Occupy Point: 391
Backsight Point: 106 Backsight Azimuth: 0.042212 Backsight

Circle: 0.0000
3261 Note: Fixed HR at Backsight:4.84 (4.84 + 0.0 Offset), Prism Const.:0.0mm
3262 Note: BS check 391 - 106:ZE92.5536,SD630.898,HD err= 0.005318, VD err= -0.015069
3263 Note: BS Circle check : angular err= 0.0000
3264 Occupy Pt: Occupy Point: 391
Northing: 1146732.719339USft Easting: 622146.018893USft
Elevation: 253.187269USft Description: NS
3265 Backsight: Occupy Point: 391
Backsight Point: 106 Backsight Azimuth: 0.042212 Backsight Circle: 0.0000
3266 Note: Fixed HR at Backsight:4.84 (4.84 + 0.0 Offset), Prism Const.:0.0mm
3267 Note: BS check 391 - 106:ZE92.5536,SD630.894,HD err= 0.001324, VD err= -0.014865
3268 Note: BS Circle check : angular err= 0.0000
3269 Note: Foresight Target:My Prism, HR:5.12 (5.12 + 0.0 Offset), Prism Const.:0.0mm
3270 Note: HR:5.12 (5.12 + 0.0 Offset)
3271 Line of Sight (HI/HR): Height of Instrument: 5.06USft
Height of Rod: 5.12USft
3272 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
3273 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0004
3274 Repeat Directional: Foresight Reverse
Set: 1 Angle: 77.0412
3275 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 270.1917
3276 Multiple Distances: Set: 1
Slope Distance: 291.404USft
3277 Repeat Foresight: Occupy Point: 391
Foresight Point: 395 Angle Right: 77.0412 Zenith Angle: 270.1917 Slope Distance: 291.404USft Height of Rod: 5.12USft
Description: NS
3278 Repeat Directional: Foresight Direct
Set: 1 Angle: 257.0405
3279 Repeat Directional: Zenith Direct
Set: 1 Zenith: 89.4050
3280 Multiple Distances: Set: 1
Slope Distance: 291.4USft
3281 Repeat Foresight: Occupy Point: 391
Foresight Point: 395 Angle Right: 257.0405 Zenith Angle: 89.4050 Slope Distance: 291.4USft Height of Rod: 5.12USft
Description: NS
3282 Note: Horizontal Angle Error: 0.0003
3283 Note: Zenith Angle Error: 0.0007
3284 Note: Slope Distance Error: 0.004
3285 Note: Horizontal Angle Error compares to the average: 0.0000
3286 Note: Zenith Angle Error compares to the average: 0.0000
3287 Note: Slope Distance Error compares to the average: 0.0
3288 Side Shot: Occupy Point: 391
Foresight Point: 395 Angle Right: 257.04065 Zenith Angle: 89.40465 Slope Distance: 291.402USft Description: NS
3289 Note: Date: 03-21-2007 Time: 14:00:38
3290 Note: Foresight Target:My Prism, HR:5.08 (5.08 + 0.0 Offset), Prism Const.:0.0mm
3291 Occupy Pt: Occupy Point: 395
Northing: 1146667.869504USft Easting: 621861.929174USft
Elevation: 254.756876USft Description: NS
3292 Note: HR:5.08 (5.08 + 0.0 Offset)
3293 Line of Sight (HI/HR): Height of Instrument: 5.23USft
Height of Rod: 5.08USft
3294 Backsight: Occupy Point: 395

Backsight Point: 391 Backsight Azimuth: 77.082862 Backsight Circle: 0.0000
3295 Note: Fixed HR at Backsight:5.08 (5.08 + 0.0 Offset), Prism Const.:0.0mm
3296 Note: BS check 395 - 391:ZE90.2054,SD291.39,HD err= -0.012828, VD err= -0.051907
3297 Note: BS Circle check : angular err= 0.0000
3298 Occupy Pt: Occupy Point: 395
Northing: 1146667.869504USft Easting: 621861.929174USft
Elevation: 254.756876USft Description: NS
3299 Note: HR:5.08 (5.08 + 0.0 Offset)
3300 Line of Sight (HI/HR): Height of Instrument: 5.2USft
Height of Rod: 5.08USft
3301 Backsight: Occupy Point: 395
Backsight Point: 391 Backsight Azimuth: 77.082862 Backsight Circle: 0.0000
3302 Note: Fixed HR at Backsight:5.08 (5.08 + 0.0 Offset), Prism Const.:0.0mm
3303 Note: BS check 395 - 391:ZE90.2055,SD291.38,HD err= -0.022837, VD err= -0.083259
3304 Note: BS Circle check : angular err= 0.0000
3305 Note: BS check 395 - 391:ZE90.2046,SD291.392,HD err= -0.01076, VD err= -0.070617
3306 Note: BS Circle check : angular err= 0.0000
3307 Note: Foresight Target:My Prism, HR:5.03 (5.03 + 0.0 Offset), Prism Const.:0.0mm
3308 Occupy Pt: Occupy Point: 395
Northing: 1146667.869504USft Easting: 621861.929174USft
Elevation: 254.756876USft Description: NS
3309 Note: HR:5.03 (5.03 + 0.0 Offset)
3310 Line of Sight (HI/HR): Height of Instrument: 5.2USft
Height of Rod: 5.03USft
3311 Backsight: Occupy Point: 395
Backsight Point: 391 Backsight Azimuth: 77.082862 Backsight Circle: 0.0000
3312 Note: Fixed HR at Backsight:5.03 (5.03 + 0.0 Offset), Prism Const.:0.0mm
3313 Note: BS check 395 - 391:ZE90.2044,SD291.39,HD err= -0.012743, VD err= -0.01778
3314 Note: BS Circle check : angular err= 0.0000
3315 Side Shot: Occupy Point: 395
Foresight Point: 396 Angle Right: 0.0000 Zenith Angle: 90.2044 Slope Distance: 291.388USft Description: CHK391
3316 Note: Foresight Target:My Prism, HR:4.88 (4.88 + 0.0 Offset), Prism Const.:0.0mm
3317 Note: HR:4.88 (4.88 + 0.0 Offset)
3318 Line of Sight (HI/HR): Height of Instrument: 5.2USft
Height of Rod: 4.88USft
3319 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
3320 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0005
3321 Repeat Directional: Foresight Reverse
Set: 1 Angle: 349.3916
3322 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 267.4226
3323 Multiple Distances: Set: 1
Slope Distance: 206.418USft
3324 Repeat Foresight: Occupy Point: 395
Foresight Point: 397 Angle Right: 349.3916 Zenith Angle: 267.4226 Slope Distance: 206.418USft Height of Rod: 4.88USft
Description: NS
3325 Repeat Directional: Foresight Direct
Set: 1 Angle: 169.3916
3326 Repeat Directional: Zenith Direct
Set: 1 Zenith: 92.1727
3327 Multiple Distances: Set: 1

Slope Distance: 206.42USft
3328 Repeat Foresight: Occupy Point: 395
Foresight Point: 397 Angle Right: 169.3916 Zenith
Angle: 92.1727 Slope Distance: 206.42USft Height of Rod: 4.88USft
Description: NS
3329 Note: Horizontal Angle Error: 0.0005
3330 Note: Zenith Angle Error: 0.0007
3331 Note: Slope Distance Error: 0.002
3332 Note: Horizontal Angle Error compares to the average:
0.0000
3333 Note: Zenith Angle Error compares to the average:
0.0000
3334 Note: Slope Distance Error compares to the average: 0.0
3335 Side Shot: Occupy Point: 395
Foresight Point: 397 Angle Right: 169.39135 Zenith
Angle: 92.17305 Slope Distance: 206.419USft Description: NS
3336 Note: Date: 03-21-2007 Time: 14:21:05
3337 Occupy Pt: Occupy Point: 395
Northing: 1146667.869504USft Easting: 621861.929174USft
Elevation: 254.756876USft Description: NS
3338 Backsight: Occupy Point: 395
Backsight Point: 391 Backsight Azimuth: 77.082862 Backsight
Circle: 0.0000
3339 Note: Fixed HR at Backsight:5.03 (5.03 + 0.0 Offset),
Prism Const.:0.0mm
3340 Note: BS check 395 - 391:ZE90.2047,SD291.386,HD err= -
0.016768, VD err= -0.021994
3341 Note: BS Circle check : angular err= 0.0000
3342 Note: BS check 395 - 391:ZE90.2042,SD291.39,HD err= -
0.012726, VD err= -0.014955
3343 Note: BS Circle check : angular err= 0.0000
3344 Note: Foresight Target:My Prism, HR:5.19 (5.19 + 0.0
Offset), Prism Const.:0.0mm
3345 Note: HR:5.19 (5.19 + 0.0 Offset)
3346 Line of Sight (HI/HR): Height of Instrument: 5.2USft
Height of Rod: 5.19USft
3347 Repeat Directional: Backsight Direct
Set: 1 Angle: 359.5959
3348 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0006
3349 Repeat Directional: Foresight Reverse
Set: 1 Angle: 292.4728
3350 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 268.3449
3351 Multiple Distances: Set: 1
Slope Distance: 245.292USft
3352 Repeat Foresight: Occupy Point: 395
Foresight Point: 398 Angle Right: 292.4728 Zenith
Angle: 268.3449 Slope Distance: 245.292USft Height of Rod: 5.19USft
Description: NS
3353 Repeat Directional: Foresight Direct
Set: 1 Angle: 112.4720
3354 Repeat Directional: Zenith Direct
Set: 1 Zenith: 91.2515
3355 Multiple Distances: Set: 1
Slope Distance: 245.29USft
3356 Repeat Foresight: Occupy Point: 395
Foresight Point: 398 Angle Right: 112.4720 Zenith
Angle: 91.2515 Slope Distance: 245.29USft Height of Rod: 5.19USft
Description: NS
3357 Note: Horizontal Angle Error: 0.0001
3358 Note: Zenith Angle Error: 0.0004
3359 Note: Slope Distance Error: 0.002
3360 Note: Horizontal Angle Error compares to the average:
0.0000
3361 Note: Zenith Angle Error compares to the average:
0.0000

3362 Note: Slope Distance Error compares to the average: 0.0
3363 Side Shot: Occupy Point: 395
Foresight Point: 398 Angle Right: 112.47215 Zenith
Angle: 91.2513 Slope Distance: 245.291USft Description: NS
3364 Note: Foresight Target:My Prism, HR:5.04 (5.04 + 0.0
Offset), Prism Const.:0.0mm
3365 Occupy Pt: Occupy Point: 397
Northing: 1146586.601019USft Easting: 621672.360978USft
Elevation: 246.822409USft Description: NS
3366 Note: HR:5.04 (5.04 + 0.0 Offset)
3367 Line of Sight (HI/HR): Height of Instrument: 5.01USft
Height of Rod: 5.04USft
3368 Backsight: Occupy Point: 397
Backsight Point: 395 Backsight Azimuth: 66.474212 Backsight
Circle: 0.0000
3369 Note: Fixed HR at Backsight:5.04 (5.04 + 0.0 Offset),
Prism Const.:0.0mm
3370 Note: BS check 397 - 395:ZE87.4733,SD206.398,HD err= -
0.009062, VD err= -0.014302
3371 Note: BS Circle check : angular err= 0.0000
3372 Side Shot: Occupy Point: 397
Foresight Point: 399 Angle Right: 0.0000 Zenith
Angle: 87.4733 Slope Distance: 206.4USft Description: CHK395
3373 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
3374 Note: HR:4.97 (4.97 + 0.0 Offset)
3375 Line of Sight (HI/HR): Height of Instrument: 5.01USft
Height of Rod: 4.97USft
3376 Side Shot: Occupy Point: 397
Foresight Point: 400 Angle Right: 182.4410 Zenith
Angle: 95.1645 Slope Distance: 111.466USft Description: B-5004
3377 Side Shot: Occupy Point: 397
Foresight Point: 401 Angle Right: 139.1357 Zenith
Angle: 94.5133 Slope Distance: 223.37USft Description: B-5003
3378 Note: Date: 03-21-2007 Time: 14:41:50
3379 Note: Foresight Target:My Prism, HR:5.06 (5.06 + 0.0
Offset), Prism Const.:0.0mm
3380 Note: HR:5.06 (5.06 + 0.0 Offset)
3381 Line of Sight (HI/HR): Height of Instrument: 5.01USft
Height of Rod: 5.06USft
3382 Side Shot: Occupy Point: 397
Foresight Point: 402 Angle Right: 359.5959 Zenith
Angle: 87.4734 Slope Distance: 206.396USft Description: CHK395
3383 Note: Foresight Target:My Prism, HR:5.04 (5.04 + 0.0
Offset), Prism Const.:0.0mm
3384 Occupy Pt: Occupy Point: 398
Northing: 1146426.32783USft Easting: 621819.64051USft
Elevation: 248.687097USft Description: NS
3385 Note: HR:5.04 (5.04 + 0.0 Offset)
3386 Line of Sight (HI/HR): Height of Instrument: 5.17USft
Height of Rod: 5.04USft
3387 Backsight: Occupy Point: 398
Backsight Point: 395 Backsight Azimuth: 9.555012 Backsight
Circle: 0.0000
3388 Note: Fixed HR at Backsight:5.04 (5.04 + 0.0 Offset),
Prism Const.:0.0mm
3389 Note: BS check 398 - 395:ZE88.3649,SD245.276,HD err= -
0.011442, VD err= -0.005402
3390 Note: BS Circle check : angular err= 0.0000
3391 Side Shot: Occupy Point: 398
Foresight Point: 403 Angle Right: 0.0000 Zenith
Angle: 88.3649 Slope Distance: 245.28USft Description: CHK395
3392 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
3393 Note: HR:4.97 (4.97 + 0.0 Offset)
3394 Line of Sight (HI/HR): Height of Instrument: 5.17USft
Height of Rod: 4.97USft

3395 Store Point: Point Name: 404
Northing: 1146592.87236USft Easting: 621862.892906USft
Elevation: 255.895877USft Description: CHK9103
3396 Cut Sheet: Elevation: 255.895877USft
Design Grade: 256.034741
3397 Design Point/Location: Point Name: 9103
Northing: 1146592.723232USft Easting: 621862.908365USft
Elevation: 256.034741USft Description: #4RF/TR-7
3398 Stakeout Deltas: Delta Northing: -0.149128USft
Delta Easting: 0.015459USft Delta Elevation: 0.138864USft
3399 Stakeout: Occupy Point: 398
Foresight Point: 404 Angle Right: 4.3740 Zenith
Angle: 87.4003 Slope Distance: 172.212USft Description: CHK9103
3400 Side Shot: Occupy Point: 398
Foresight Point: 405 Angle Right: 177.3056 Zenith
Angle: 94.4854 Slope Distance: 87.61USft Description: B-5002
3401 Side Shot: Occupy Point: 398
Foresight Point: 406 Angle Right: 172.4814 Zenith
Angle: 96.4954 Slope Distance: 251.346USft Description: B-5001
3402 Note: Date: 03-21-2007 Time: 15:16:11
3403 Note: Foresight Target:My Prism, HR:5.04 (5.04 + 0.0
Offset), Prism Const.:0.0mm
3404 Note: HR:5.04 (5.04 + 0.0 Offset)
3405 Line of Sight (HI/HR): Height of Instrument: 5.17USft
Height of Rod: 5.04USft
3406 Side Shot: Occupy Point: 398
Foresight Point: 407 Angle Right: 359.5953 Zenith
Angle: 88.3648 Slope Distance: 245.28USft Description: CHK359
3407 Note: Foresight Target:My Prism, HR:5.18 (5.18 + 0.0
Offset), Prism Const.:0.0mm
3408 Occupy Pt: Occupy Point: 9143
Northing: 1143895.325459USft Easting: 619692.808126USft
Elevation: 246.892193USft Description: NS
3409 Note: HR:5.18 (5.18 + 0.0 Offset)
3410 Line of Sight (HI/HR): Height of Instrument: 5.15USft
Height of Rod: 5.18USft
3411 Backsight: Occupy Point: 9143
Backsight Point: 9139 Backsight Azimuth: 73.590513 Backsight
Circle: 0.0000
3412 Note: Fixed HR at Backsight:5.18 (5.18 + 0.0 Offset),
Prism Const.:0.0mm
3413 Note: BS check 9143 - 9139:ZE88.3837,SD723.272,HD err=
0.039137, VD err= -0.046863
3414 Note: BS Circle check : angular err= 0.0000
3415 Note: BS check 9143 - 9139:ZE88.3832,SD723.282,HD err=
0.048719, VD err= -0.029098
3416 Note: BS Circle check : angular err= 0.0000
3417 Side Shot: Occupy Point: 9143
Foresight Point: 408 Angle Right: 0.0000 Zenith
Angle: 88.3832 Slope Distance: 723.282USft Description: CHK9139
3418 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
3419 Note: HR:4.97 (4.97 + 0.0 Offset)
3420 Line of Sight (HI/HR): Height of Instrument: 5.15USft
Height of Rod: 4.97USft
3421 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
3422 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0007
3423 Repeat Directional: Foresight Reverse
Set: 1 Angle: 241.5518
3424 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 269.0812
3425 Multiple Distances: Set: 1
Slope Distance: 297.508USft
3426 Repeat Foresight: Occupy Point: 9143
Foresight Point: 409 Angle Right: 241.5518 Zenith

Angle: 269.0812 Slope Distance: 297.508USft Height of Rod: 4.97USft
Description: NS
3427 Repeat Directional: Foresight Direct
Set: 1 Angle: 61.5513
3428 Repeat Directional: Zenith Direct
Set: 1 Zenith: 90.5146
3429 Multiple Distances: Set: 1
Slope Distance: 297.502USft
3430 Repeat Foresight: Occupy Point: 9143
Foresight Point: 409 Angle Right: 61.5513 Zenith
Angle: 90.5146 Slope Distance: 297.502USft Height of Rod: 4.97USft
Description: NS
3431 Note: Horizontal Angle Error: 0.0002
3432 Note: Zenith Angle Error: 0.0002
3433 Note: Slope Distance Error: 0.006
3434 Note: Horizontal Angle Error compares to the average:
0.0000
3435 Note: Zenith Angle Error compares to the average:
0.0000
3436 Note: Slope Distance Error compares to the average: 0.0
3437 Side Shot: Occupy Point: 9143
Foresight Point: 409 Angle Right: 61.5512 Zenith
Angle: 90.5147 Slope Distance: 297.505USft Description: NS
3438 Note: Date: 03-21-2007 Time: 15:47:46
3439 Occupy Pt: Occupy Point: 9143
Northing: 1143895.325459USft Easting: 619692.808126USft
Elevation: 246.892193USft Description: NS
3440 Backsight: Occupy Point: 9143
Backsight Point: 9139 Backsight Azimuth: 73.590513 Backsight
Circle: 0.0000
3441 Note: Fixed HR at Backsight:5.18 (5.18 + 0.0 Offset),
Prism Const.:0.0mm
3442 Note: BS check 9143 - 9139:ZE88.3833,SD723.274,HD err=
0.040804, VD err= -0.032794
3443 Note: BS Circle check : angular err= 0.0000
3444 Occupy Pt: Occupy Point: 9143
Northing: 1143895.325459USft Easting: 619692.808126USft
Elevation: 246.892193USft Description: NS
3445 Backsight: Occupy Point: 9143
Backsight Point: 9139 Backsight Azimuth: 73.590513 Backsight
Circle: 0.0000
3446 Note: Fixed HR at Backsight:5.18 (5.18 + 0.0 Offset),
Prism Const.:0.0mm
3447 Note: BS check 9143 - 9139:ZE88.3835,SD723.274,HD err=
0.040971, VD err= -0.039805
3448 Note: BS Circle check : angular err= 0.0000
3449 Note: BS check 9143 - 9139:ZE88.3833,SD723.278,HD err=
0.044803, VD err= -0.032699
3450 Note: BS Circle check : angular err= 0.0000
3451 Occupy Pt: Occupy Point: 9143
Northing: 1143895.325459USft Easting: 619692.808126USft
Elevation: 246.892193USft Description: NS
3452 Backsight: Occupy Point: 9143
Backsight Point: 9139 Backsight Azimuth: 73.590513 Backsight
Circle: 0.0000
3453 Note: Fixed HR at Backsight:5.18 (5.18 + 0.0 Offset),
Prism Const.:0.0mm
3454 Note: BS check 9143 - 9139:ZE88.3831,SD723.276,HD err=
0.042638, VD err= -0.025735
3455 Note: BS Circle check : angular err= 0.0000
3456 Note: Foresight Target:My Prism, HR:5.15 (5.15 + 0.0
Offset), Prism Const.:0.0mm
3457 Note: HR:5.15 (5.15 + 0.0 Offset)
3458 Line of Sight (HI/HR): Height of Instrument: 5.15USft
Height of Rod: 5.15USft
3459 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000

3460 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0007
3461 Repeat Directional: Foresight Reverse
Set: 1 Angle: 76.2215
3462 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 271.0507
3463 Multiple Distances: Set: 1
Slope Distance: 373.752USft
3464 Repeat Foresight: Occupy Point: 9143
Foresight Point: 410 Angle Right: 76.2215 Zenith
Angle: 271.0507 Slope Distance: 373.752USft Height of Rod: 5.15USft
Description: NS
3465 Repeat Directional: Foresight Direct
Set: 1 Angle: 256.2213
3466 Repeat Directional: Zenith Direct
Set: 1 Zenith: 88.5456
3467 Multiple Distances: Set: 1
Slope Distance: 373.758USft
3468 Repeat Foresight: Occupy Point: 9143
Foresight Point: 410 Angle Right: 256.2213 Zenith
Angle: 88.5456 Slope Distance: 373.758USft Height of Rod: 5.15USft
Description: NS
3469 Note: Horizontal Angle Error: 0.0005
3470 Note: Zenith Angle Error: 0.0003
3471 Note: Slope Distance Error: 0.006
3472 Note: Horizontal Angle Error compares to the average:
0.0000
3473 Note: Zenith Angle Error compares to the average:
0.0000
3474 Note: Slope Distance Error compares to the average: 0.0
3475 Side Shot: Occupy Point: 9143
Foresight Point: 410 Angle Right: 256.22105 Zenith
Angle: 88.54545 Slope Distance: 373.755USft Description: NS
3476 Note: Foresight Target:My Prism, HR:5.17 (5.17 + 0.0
Offset), Prism Const.:0.0mm
3477 Occupy Pt: Occupy Point: 410
Northing: 1144220.09809USft Easting: 619507.969107USft
Elevation: 253.968596USft Description: NS
3478 Note: HR:5.17 (5.17 + 0.0 Offset)
3479 Line of Sight (HI/HR): Height of Instrument: 5.13USft
Height of Rod: 5.17USft
3480 Backsight: Occupy Point: 410
Backsight Point: 9143 Backsight Azimuth: 150.211563 Backsight
Circle: 0.0000
3481 Note: Fixed HR at Backsight:5.17 (5.17 + 0.0 Offset),
Prism Const.:0.0mm
3482 Note: BS check 410 - 9143:ZE91.0446,SD373.766,HD err=
0.011665, VD err= -0.004879
3483 Note: BS Circle check : angular err= 0.0000
3484 Side Shot: Occupy Point: 410
Foresight Point: 411 Angle Right: 0.0000 Zenith
Angle: 91.0447 Slope Distance: 373.768USft Description: CHK9143
3485 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
3486 Note: HR:4.97 (4.97 + 0.0 Offset)
3487 Line of Sight (HI/HR): Height of Instrument: 5.13USft
Height of Rod: 4.97USft
3488 Side Shot: Occupy Point: 410
Foresight Point: 412 Angle Right: 197.4255 Zenith
Angle: 85.4551 Slope Distance: 83.528USft Description: B-1191
3489 Note: Date: 03-21-2007 Time: 16:09:10
3490 Occupy Pt: Occupy Point: 410
Northing: 1144220.09809USft Easting: 619507.969107USft
Elevation: 253.968596USft Description: NS
3491 Backsight: Occupy Point: 410
Backsight Point: 9143 Backsight Azimuth: 150.211563 Backsight
Circle: 0.0000

3492 Note: Fixed HR at Backsight:5.17 (5.17 + 0.0 Offset), Prism Const.:0.0mm
3493 Note: BS check 410 - 9143:ZE91.0446,SD373.766,HD err= 0.011665, VD err= -0.004879
3494 Note: BS Circle check : angular err= 0.0000
3495 Note: Foresight Target:My Prism, HR:4.93 (4.93 + 0.0 Offset), Prism Const.:0.0mm
3496 Note: HR:4.93 (4.93 + 0.0 Offset)
3497 Line of Sight (HI/HR): Height of Instrument: 5.13USft Height of Rod: 4.93USft
3498 Repeat Directional: Backsight Direct Set: 1 Angle: 0.0000
3499 Repeat Directional: Backsight Reverse Set: 1 Angle: 180.0009
3500 Repeat Directional: Foresight Reverse Set: 1 Angle: 312.5457
3501 Repeat Directional: Zenith Reverse Set: 1 Zenith: 273.1239
3502 Multiple Distances: Set: 1 Slope Distance: 349.02USft
3503 Repeat Foresight: Occupy Point: 410 Foresight Point: 413 Angle Right: 312.5457 Zenith Angle: 273.1239 Slope Distance: 349.02USft Height of Rod: 4.93USft Description: NS
3504 Repeat Directional: Foresight Direct Set: 1 Angle: 132.5450
3505 Repeat Directional: Zenith Direct Set: 1 Zenith: 86.4724
3506 Multiple Distances: Set: 1 Slope Distance: 349.03USft
3507 Repeat Foresight: Occupy Point: 410 Foresight Point: 413 Angle Right: 132.5450 Zenith Angle: 86.4724 Slope Distance: 349.03USft Height of Rod: 4.93USft Description: NS
3508 Note: Horizontal Angle Error: 0.0002
3509 Note: Zenith Angle Error: 0.0003
3510 Note: Slope Distance Error: 0.01
3511 Note: Horizontal Angle Error compares to the average: 0.0000
3512 Note: Zenith Angle Error compares to the average: 0.0000
3513 Note: Slope Distance Error compares to the average: 0.0
3514 Side Shot: Occupy Point: 410 Foresight Point: 413 Angle Right: 132.5449 Zenith Angle: 86.47225 Slope Distance: 349.025USft Description: NS
3515 Note: Date: 03-21-2007 Time: 16:26:54
3516 Note: Data Collector Serial Number: FS29A13023
3517 Note: Activating Total Station: Nikon TOP GUN [Nikon], COM1, 4800 baud, no parity
3518 Note: Foresight Target:My Prism, HR:4.93 (4.93 + 0.0 Offset), Prism Const.:0.0mm
3519 Note: Date: 03-22-2007 Time: 08:08:16
3520 Note: Date: 03-22-2007 Time: 08:08:35
3521 Note: Foresight Target:My Prism, HR:5.15 (5.15 + 0.0 Offset), Prism Const.:0.0mm
3522 Occupy Pt: Occupy Point: 413 Northing: 1144300.075487USft Easting: 619168.793633USft Elevation: 273.715053USft Description: NS
3523 Note: HR:5.15 (5.15 + 0.0 Offset)
3524 Line of Sight (HI/HR): Height of Instrument: 5.11USft Height of Rod: 5.15USft
3525 Backsight: Occupy Point: 413 Backsight Point: 410 Backsight Azimuth: 103.160463 Backsight Circle: 0.0000
3526 Note: Fixed HR at Backsight:5.15 (5.15 + 0.0 Offset), Prism Const.:0.0mm
3527 Note: BS check 413 - 410:ZE93.1418,SD349.036,HD err=

0.001417, VD err= -0.01041
3528 Note: BS Circle check : angular err= 0.0000
3529 Side Shot: Occupy Point: 413
Foresight Point: 9197 Angle Right: 0.0000 Zenith
Angle: 93.1419 Slope Distance: 349.034USft Description: CHK410
3530 Store Point: Point Name: 414
Northing: 1144220.098245USft Easting: 619507.96845USft
Elevation: 253.95661USft Description: CHK410
3531 Deleted Point: Point Name: 9197
3532 Occupy Pt: Occupy Point: 413
Northing: 1144300.075487USft Easting: 619168.793633USft
Elevation: 273.715053USft Description: NS
3533 Backsight: Occupy Point: 413
Backsight Point: 410 Backsight Azimuth: 103.160463 Backsight
Circle: 0.0000
3534 Note: Fixed HR at Backsight:5.15 (5.15 + 0.0 Offset),
Prism Const.:0.0mm
3535 Note: BS check 413 - 410:ZE93.1418,SD349.032,HD err= -
0.002576, VD err= -0.010184
3536 Note: BS Circle check : angular err= 0.0000
3537 Note: Foresight Target:My Prism, HR:5.13 (5.13 + 0.0
Offset), Prism Const.:0.0mm
3538 Note: HR:5.13 (5.13 + 0.0 Offset)
3539 Line of Sight (HI/HR): Height of Instrument: 5.11USft
Height of Rod: 5.13USft
3540 Note: Date: 03-22-2007 Time: 08:49:54
3541 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
3542 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0001
3543 Repeat Directional: Foresight Reverse
Set: 1 Angle: 356.4707
3544 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 270.0048
3545 Multiple Distances: Set: 1
Slope Distance: 318.102USft
3546 Repeat Foresight: Occupy Point: 413
Foresight Point: 415 Angle Right: 356.4707 Zenith
Angle: 270.0048 Slope Distance: 318.102USft Height of Rod: 5.13USft
Description: NS
3547 Repeat Directional: Foresight Direct
Set: 1 Angle: 176.4702
3548 Repeat Directional: Zenith Direct
Set: 1 Zenith: 89.5915
3549 Multiple Distances: Set: 1
Slope Distance: 318.106USft
3550 Repeat Foresight: Occupy Point: 413
Foresight Point: 415 Angle Right: 176.4702 Zenith
Angle: 89.5915 Slope Distance: 318.106USft Height of Rod: 5.13USft
Description: NS
3551 Note: Horizontal Angle Error: 0.0004
3552 Note: Zenith Angle Error: 0.0003
3553 Note: Slope Distance Error: 0.004
3554 Note: Horizontal Angle Error compares to the average:
0.0000
3555 Note: Zenith Angle Error compares to the average:
0.0000
3556 Note: Slope Distance Error compares to the average: 0.0
3557 Side Shot: Occupy Point: 413
Foresight Point: 415 Angle Right: 176.4704 Zenith
Angle: 89.59135 Slope Distance: 318.104USft Description: NS
3558 Note: Foresight Target:My Prism, HR:5.03 (5.03 + 0.0
Offset), Prism Const.:0.0mm
3559 Occupy Pt: Occupy Point: 415
Northing: 1144355.600129USft Easting: 618855.573001USft
Elevation: 273.766765USft Description: NS
3560 Note: HR:5.03 (5.03 + 0.0 Offset)

3561 Line of Sight (HI/HR): Height of Instrument: 5.28USft
Height of Rod: 5.03USft
3562 Backsight: Occupy Point: 415
Backsight Point: 413 Backsight Azimuth: 100.030863 Backsight
Circle: 0.0000
3563 Note: Fixed HR at Backsight:5.03 (5.03 + 0.0 Offset),
Prism Const.:0.0mm
3564 Note: BS check 415 - 413:ZE90.0306,SD318.104,HD err= -
0.000121, VD err= 0.014862
3565 Note: BS Circle check : angular err= 0.0000
3566 Occupy Pt: Occupy Point: 415
Northing: 1144355.600129USft Easting: 618855.573001USft
Elevation: 273.766765USft Description: NS
3567 Note: HR:5.03 (5.03 + 0.0 Offset)
3568 Line of Sight (HI/HR): Height of Instrument: 5.29USft
Height of Rod: 5.03USft
3569 Backsight: Occupy Point: 415
Backsight Point: 413 Backsight Azimuth: 100.030863 Backsight
Circle: 0.0000
3570 Note: Fixed HR at Backsight:5.03 (5.03 + 0.0 Offset),
Prism Const.:0.0mm
3571 Note: BS check 415 - 413:ZE90.0306,SD318.104,HD err= -
0.000121, VD err= 0.024862
3572 Note: BS Circle check : angular err= 0.0000
3573 Occupy Pt: Occupy Point: 415
Northing: 1144355.600129USft Easting: 618855.573001USft
Elevation: 273.766765USft Description: NS
3574 Note: HR:5.03 (5.03 + 0.0 Offset)
3575 Line of Sight (HI/HR): Height of Instrument: 5.28USft
Height of Rod: 5.03USft
3576 Backsight: Occupy Point: 415
Backsight Point: 413 Backsight Azimuth: 100.030863 Backsight
Circle: 0.0000
3577 Note: Fixed HR at Backsight:5.03 (5.03 + 0.0 Offset),
Prism Const.:0.0mm
3578 Note: BS check 415 - 413:ZE90.0304,SD318.104,HD err= -
0.000118, VD err= 0.017946
3579 Note: BS Circle check : angular err= 0.0000
3580 Note: Foresight Target:My Prism, HR:5.04 (5.04 + 0.0
Offset), Prism Const.:0.0mm
3581 Occupy Pt: Occupy Point: 415
Northing: 1144355.600129USft Easting: 618855.573001USft
Elevation: 273.766765USft Description: NS
3582 Note: HR:5.04 (5.04 + 0.0 Offset)
3583 Line of Sight (HI/HR): Height of Instrument: 5.28USft
Height of Rod: 5.04USft
3584 Backsight: Occupy Point: 415
Backsight Point: 413 Backsight Azimuth: 100.030863 Backsight
Circle: 0.0000
3585 Note: Fixed HR at Backsight:5.04 (5.04 + 0.0 Offset),
Prism Const.:0.0mm
3586 Note: BS check 415 - 413:ZE90.0306,SD318.106,HD err=
0.001879, VD err= 0.00486
3587 Note: BS Circle check : angular err= 0.0000
3588 Side Shot: Occupy Point: 415
Foresight Point: 416 Angle Right: 0.0000 Zenith
Angle: 90.0306 Slope Distance: 318.102USft Description: CHK413
3589 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
3590 Note: HR:4.97 (4.97 + 0.0 Offset)
3591 Line of Sight (HI/HR): Height of Instrument: 5.28USft
Height of Rod: 4.97USft
3592 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
3593 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0001
3594 Repeat Directional: Foresight Reverse

Set: 1 Angle: 248.3019
3595 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 266.2828
3596 Multiple Distances: Set: 1
Slope Distance: 88.498USft
3597 Repeat Foresight: Occupy Point: 415
Foresight Point: 417 Angle Right: 248.3019 Zenith
Angle: 266.2828 Slope Distance: 88.498USft Height of Rod: 4.97USft
Description: NS
3598 Repeat Directional: Foresight Direct
Set: 1 Angle: 68.3021
3599 Repeat Directional: Zenith Direct
Set: 1 Zenith: 93.3142
3600 Multiple Distances: Set: 1
Slope Distance: 88.498USft
3601 Repeat Foresight: Occupy Point: 415
Foresight Point: 417 Angle Right: 68.3021 Zenith
Angle: 93.3142 Slope Distance: 88.498USft Height of Rod: 4.97USft
Description: NS
3602 Note: Horizontal Angle Error: 0.0003
3603 Note: Zenith Angle Error: 0.0010
3604 Note: Slope Distance Error: 0.0
3605 Note: Horizontal Angle Error compares to the average:
0.0000
3606 Note: Zenith Angle Error compares to the average:
0.0000
3607 Note: Slope Distance Error compares to the average: 0.0
3608 Side Shot: Occupy Point: 415
Foresight Point: 417 Angle Right: 68.30195 Zenith
Angle: 93.3137 Slope Distance: 88.498USft Description: NS
3609 Note: Date: 03-22-2007 Time: 09:10:38
3610 Occupy Pt: Occupy Point: 415
Northing: 1144355.600129USft Easting: 618855.573001USft
Elevation: 273.766765USft Description: NS
3611 Backsight: Occupy Point: 415
Backsight Point: 413 Backsight Azimuth: 100.030863 Backsight
Circle: 0.0000
3612 Note: Fixed HR at Backsight:5.04 (5.04 + 0.0 Offset),
Prism Const.:0.0mm
3613 Note: BS check 415 - 413:ZE90.0309,SD318.104,HD err= -
0.000125, VD err= 0.000235
3614 Note: BS Circle check : angular err= 0.0000
3615 Note: Foresight Target:My Prism, HR:4.77 (4.77 + 0.0
Offset), Prism Const.:0.0mm
3616 Note: HR:4.77 (4.77 + 0.0 Offset)
3617 Line of Sight (HI/HR): Height of Instrument: 5.28USft
Height of Rod: 4.77USft
3618 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
3619 Repeat Directional: Backsight Reverse
Set: 1 Angle: 179.5957
3620 Repeat Directional: Foresight Reverse
Set: 1 Angle: 114.0627
3621 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 271.3549
3622 Multiple Distances: Set: 1
Slope Distance: 190.726USft
3623 Repeat Foresight: Occupy Point: 415
Foresight Point: 418 Angle Right: 114.0627 Zenith
Angle: 271.3549 Slope Distance: 190.726USft Height of Rod: 4.77USft
Description: NS
3624 Repeat Directional: Foresight Direct
Set: 1 Angle: 294.0624
3625 Repeat Directional: Zenith Direct
Set: 1 Zenith: 88.2412
3626 Multiple Distances: Set: 1
Slope Distance: 190.73USft

3627 Repeat Foresight: Occupy Point: 415
Foresight Point: 418 Angle Right: 294.0624 Zenith
Angle: 88.2412 Slope Distance: 190.73USft Height of Rod: 4.77USft
Description: NS
3628 Note: Horizontal Angle Error: 0.0006
3629 Note: Zenith Angle Error: 0.0001
3630 Note: Slope Distance Error: 0.004
3631 Note: Horizontal Angle Error compares to the average:
0.0000
3632 Note: Zenith Angle Error compares to the average:
0.0000
3633 Note: Slope Distance Error compares to the average: 0.0
3634 Side Shot: Occupy Point: 415
Foresight Point: 418 Angle Right: 294.0627 Zenith
Angle: 88.24115 Slope Distance: 190.728USft Description: NS
3635 Note: Foresight Target:My Prism, HR:5.44 (5.44 + 0.0
Offset), Prism Const.:0.0mm
3636 Occupy Pt: Occupy Point: 417
Northing: 1144269.025279USft Easting: 618873.095899USft
Elevation: 268.632552USft Description: NS
3637 Note: HR:5.44 (5.44 + 0.0 Offset)
3638 Line of Sight (HI/HR): Height of Instrument: 5.2USft
Height of Rod: 5.44USft
3639 Backsight: Occupy Point: 417
Backsight Point: 415 Backsight Azimuth: 348.332813 Backsight
Circle: 0.0000
3640 Note: Fixed HR at Backsight:5.44 (5.44 + 0.0 Offset),
Prism Const.:0.0mm
3641 Note: BS check 417 - 415:ZE86.3132,SD88.49,HD err= -
0.003034, VD err= -0.011424
3642 Note: BS Circle check : angular err= 0.0000
3643 Side Shot: Occupy Point: 417
Foresight Point: 419 Angle Right: 0.0000 Zenith
Angle: 86.3132 Slope Distance: 88.49USft Description: CHK415
3644 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
3645 Note: HR:4.97 (4.97 + 0.0 Offset)
3646 Line of Sight (HI/HR): Height of Instrument: 5.2USft
Height of Rod: 4.97USft
3647 Note: Date: 03-22-2007 Time: 09:29:45
3648 Note: Foresight Target:My Prism, HR:5.44 (5.44 + 0.0
Offset), Prism Const.:0.0mm
3649 Occupy Pt: Occupy Point: 418
Northing: 1144513.361263USft Easting: 618962.626013USft
Elevation: 279.591574USft Description: NS
3650 Note: HR:5.44 (5.44 + 0.0 Offset)
3651 Line of Sight (HI/HR): Height of Instrument: 5.08USft
Height of Rod: 5.44USft
3652 Backsight: Occupy Point: 418
Backsight Point: 415 Backsight Azimuth: 214.093563 Backsight
Circle: 0.0000
3653 Note: Fixed HR at Backsight:5.44 (5.44 + 0.0 Offset),
Prism Const.:0.0mm
3654 Note: BS check 418 - 415:ZE91.3822,SD190.722,HD err= -
0.010006, VD err= 0.008291
3655 Note: BS Circle check : angular err= 0.0000
3656 Side Shot: Occupy Point: 418
Foresight Point: 420 Angle Right: 0.0000 Zenith
Angle: 91.3821 Slope Distance: 190.722USft Description: CHK415
3657 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
3658 Note: HR:4.97 (4.97 + 0.0 Offset)
3659 Line of Sight (HI/HR): Height of Instrument: 5.08USft
Height of Rod: 4.97USft
3660 Off Center Shot: Angle Right: 293.4234
Zenith Angle: 89.4505 Slope Distance: 63.976USft
3661 Off Center Shot: Left/Right Offset: -1.0USft

Description: Left / Right Offset
3662 Side Shot: Occupy Point: 418
Foresight Point: 421 Angle Right: 292.485014 Zenith
Angle: 89.450511 Slope Distance: 63.983815USft Description: B-1189
3663 Side Shot: Occupy Point: 418
Foresight Point: 422 Angle Right: 109.5554 Zenith
Angle: 90.3044 Slope Distance: 245.102USft Description: B-1186
3664 Note: Date: 03-22-2007 Time: 09:56:44
3665 Occupy Pt: Occupy Point: 418
Northing: 1144513.361263USft Easting: 618962.626013USft
Elevation: 279.591574USft Description: NS
3666 Backsight: Occupy Point: 418
Backsight Point: 415 Backsight Azimuth: 214.093563 Backsight
Circle: 0.0000
3667 Note: Fixed HR at Backsight:5.44 (5.44 + 0.0 Offset),
Prism Const.:0.0mm
3668 Note: BS check 418 - 415:ZE91.3824,SD190.722,HD err= -
0.010058, VD err= 0.006442
3669 Note: BS Circle check : angular err= 0.0000
3670 Note: Foresight Target:My Prism, HR:4.92 (4.92 + 0.0
Offset), Prism Const.:0.0mm
3671 Note: HR:4.92 (4.92 + 0.0 Offset)
3672 Line of Sight (HI/HR): Height of Instrument: 5.08USft
Height of Rod: 4.92USft
3673 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
3674 Repeat Directional: Backsight Reverse
Set: 1 Angle: 179.5958
3675 Repeat Directional: Foresight Reverse
Set: 1 Angle: 18.2852
3676 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 269.4318
3677 Multiple Distances: Set: 1
Slope Distance: 292.958USft
3678 Repeat Foresight: Occupy Point: 418
Foresight Point: 423 Angle Right: 18.2852 Zenith
Angle: 269.4318 Slope Distance: 292.958USft Height of Rod: 4.92USft
Description: NS
3679 Repeat Directional: Foresight Direct
Set: 1 Angle: 198.2851
3680 Repeat Directional: Zenith Direct
Set: 1 Zenith: 90.1638
3681 Multiple Distances: Set: 1
Slope Distance: 292.954USft
3682 Repeat Foresight: Occupy Point: 418
Foresight Point: 423 Angle Right: 198.2851 Zenith
Angle: 90.1638 Slope Distance: 292.954USft Height of Rod: 4.92USft
Description: NS
3683 Note: Horizontal Angle Error: 0.0003
3684 Note: Zenith Angle Error: 0.0004
3685 Note: Slope Distance Error: 0.004
3686 Note: Horizontal Angle Error compares to the average:
0.0000
3687 Note: Zenith Angle Error compares to the average:
0.0000
3688 Note: Slope Distance Error compares to the average: 0.0
3689 Side Shot: Occupy Point: 418
Foresight Point: 423 Angle Right: 198.28525 Zenith
Angle: 90.1640 Slope Distance: 292.956USft Description: NS
3690 Note: Foresight Target:My Prism, HR:4.98 (4.98 + 0.0
Offset), Prism Const.:0.0mm
3691 Occupy Pt: Occupy Point: 423
Northing: 1144691.12639USft Easting: 619195.47953USft
Elevation: 278.331289USft Description: NS
3692 Note: HR:4.98 (4.98 + 0.0 Offset)
3693 Line of Sight (HI/HR): Height of Instrument: 5.11USft
Height of Rod: 4.98USft

3694 Backsight: Occupy Point: 423
Backsight Point: 418 Backsight Azimuth: 232.382813 Backsight Circle: 0.0000
3695 Note: Fixed HR at Backsight:4.98 (4.98 + 0.0 Offset), Prism Const.:0.0mm
3696 Note: BS check 423 - 418:ZE89.4644,SD292.956,HD err= 0.001261, VD err= 0.000263
3697 Note: BS Circle check : angular err= 0.0000
3698 Side Shot: Occupy Point: 423
Foresight Point: 424 Angle Right: 0.0000 Zenith Angle: 89.4644 Slope Distance: 292.958USft Description: CHK418
3699 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
3700 Note: HR:4.97 (4.97 + 0.0 Offset)
3701 Line of Sight (HI/HR): Height of Instrument: 5.11USft
Height of Rod: 4.97USft
3702 Side Shot: Occupy Point: 423
Foresight Point: 425 Angle Right: 200.4756 Zenith Angle: 90.4043 Slope Distance: 66.906USft Description: B-1187
3703 Occupy Pt: Occupy Point: 423
Northing: 1144691.12639USft Easting: 619195.47953USft
Elevation: 278.331289USft Description: NS
3704 Backsight: Occupy Point: 423
Backsight Point: 418 Backsight Azimuth: 232.382813 Backsight Circle: 0.0000
3705 Note: Fixed HR at Backsight:4.98 (4.98 + 0.0 Offset), Prism Const.:0.0mm
3706 Note: BS check 423 - 418:ZE89.4646,SD292.95,HD err= -0.004728, VD err= -0.0026
3707 Note: BS Circle check : angular err= 0.0000
3708 Occupy Pt: Occupy Point: 423
Northing: 1144691.12639USft Easting: 619195.47953USft
Elevation: 278.331289USft Description: NS
3709 Backsight: Occupy Point: 423
Backsight Point: 418 Backsight Azimuth: 232.382813 Backsight Circle: 0.0000
3710 Note: Fixed HR at Backsight:4.98 (4.98 + 0.0 Offset), Prism Const.:0.0mm
3711 Note: BS check 423 - 418:ZE89.4649,SD292.952,HD err= -0.002711, VD err= -0.006853
3712 Note: BS Circle check : angular err= 0.0000
3713 Note: Foresight Target:My Prism, HR:5.02 (5.02 + 0.0 Offset), Prism Const.:0.0mm
3714 Note: HR:5.02 (5.02 + 0.0 Offset)
3715 Line of Sight (HI/HR): Height of Instrument: 5.11USft
Height of Rod: 5.02USft
3716 Note: Date: 03-22-2007 Time: 10:33:27
3717 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
3718 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0001
3719 Repeat Directional: Foresight Reverse
Set: 1 Angle: 323.2735
3720 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 269.4557
3721 Multiple Distances: Set: 1
Slope Distance: 237.628USft
3722 Repeat Foresight: Occupy Point: 423
Foresight Point: 426 Angle Right: 323.2735 Zenith Angle: 269.4557 Slope Distance: 237.628USft Height of Rod: 5.02USft
Description: NS
3723 Repeat Directional: Foresight Direct
Set: 1 Angle: 143.2734
3724 Repeat Directional: Zenith Direct
Set: 1 Zenith: 90.1400
3725 Multiple Distances: Set: 1
Slope Distance: 237.628USft

3726 Repeat Foresight: Occupy Point: 423
Foresight Point: 426 Angle Right: 143.2734 Zenith
Angle: 90.1400 Slope Distance: 237.628USft Height of Rod: 5.02USft
Description: NS
3727 Note: Horizontal Angle Error: 0.0000
3728 Note: Zenith Angle Error: 0.0003
3729 Note: Slope Distance Error: 0.0
3730 Note: Horizontal Angle Error compares to the average:
0.0000
3731 Note: Zenith Angle Error compares to the average:
0.0000
3732 Note: Slope Distance Error compares to the average: 0.0
3733 Side Shot: Occupy Point: 423
Foresight Point: 426 Angle Right: 143.2734 Zenith
Angle: 90.14015 Slope Distance: 237.628USft Description: NS
3734 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
3735 Occupy Pt: Occupy Point: 426
Northing: 1144919.431839USft Easting: 619261.379064USft
Elevation: 277.451839USft Description: NS
3736 Note: HR:4.97 (4.97 + 0.0 Offset)
3737 Line of Sight (HI/HR): Height of Instrument: 4.96USft
Height of Rod: 4.97USft
3738 Backsight: Occupy Point: 426
Backsight Point: 423 Backsight Azimuth: 196.060213 Backsight
Circle: 0.0000
3739 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset),
Prism Const.:0.0mm
3740 Note: BS check 426 - 423:ZE89.4709,SD237.636,HD err=
0.008317, VD err= -0.001189
3741 Note: BS Circle check : angular err= 0.0000
3742 Side Shot: Occupy Point: 426
Foresight Point: 427 Angle Right: 0.0000 Zenith
Angle: 89.4706 Slope Distance: 237.64USft Description: CHK423
3743 Occupy Pt: Occupy Point: 426
Northing: 1144919.431839USft Easting: 619261.379064USft
Elevation: 277.451839USft Description: NS
3744 Backsight: Occupy Point: 426
Backsight Point: 423 Backsight Azimuth: 196.060213 Backsight
Circle: 0.0000
3745 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset),
Prism Const.:0.0mm
3746 Note: BS check 426 - 423:ZE89.4705,SD237.63,HD err=
0.0023, VD err= 0.003397
3747 Note: BS Circle check : angular err= 0.0000
3748 Note: Foresight Target:My Prism, HR:5.33 (5.33 + 0.0
Offset), Prism Const.:0.0mm
3749 Note: HR:5.33 (5.33 + 0.0 Offset)
3750 Line of Sight (HI/HR): Height of Instrument: 4.96USft
Height of Rod: 5.33USft
3751 Note: Foresight Target:My Prism, HR:5.36 (5.36 + 0.0
Offset), Prism Const.:0.0mm
3752 Occupy Pt: Occupy Point: 426
Northing: 1144919.431839USft Easting: 619261.379064USft
Elevation: 277.451839USft Description: NS
3753 Note: HR:5.36 (5.36 + 0.0 Offset)
3754 Line of Sight (HI/HR): Height of Instrument: 5.25USft
Height of Rod: 5.36USft
3755 Backsight: Occupy Point: 426
Backsight Point: 423 Backsight Azimuth: 196.060213 Backsight
Circle: 0.0000
3756 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset),
Prism Const.:0.0mm
3757 Note: BS check 426 - 423:ZE89.5116,SD237.634,HD err=
0.007211, VD err= 0.00424
3758 Note: BS Circle check : angular err= 0.0000
3759 Note: Date: 03-22-2007 Time: 11:20:07

3760 Note: RD,BD 1:0.0000
3761 Note: RD,BV 1:180.0004
3762 Note: RD,FV 1:180.0000
3763 Note: RD,ZV 1:
3764 Note: MD,SD 1:
3765 Note: RF,OP426,FP,AR180.0000,ZE,SD,HR5.36,--
3766 Note: RD,FD 1:0.0000
3767 Note: RD,ZD 1:
3768 Note: MD,SD 1:
3769 Note: RF,OP426,FP,AR0.0000,ZE,SD,HR5.36,--
3770 Note: Horizontal Angle Error: 0.0000
3771 Note: Zenith Angle Error: 0.0000
3772 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
3773 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0003
3774 Repeat Directional: Foresight Reverse
Set: 1 Angle: 75.1541
3775 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 266.5957
3776 Multiple Distances: Set: 1
Slope Distance: 228.014USft
3777 Repeat Foresight: Occupy Point: 426
Foresight Point: 428 Angle Right: 75.1541 Zenith
Angle: 266.5957 Slope Distance: 228.014USft Height of Rod: 5.36USft
Description: NS
3778 Repeat Directional: Foresight Direct
Set: 1 Angle: 255.1536
3779 Repeat Directional: Zenith Direct
Set: 1 Zenith: 92.5958
3780 Multiple Distances: Set: 1
Slope Distance: 228.014USft
3781 Repeat Foresight: Occupy Point: 426
Foresight Point: 428 Angle Right: 255.1536 Zenith
Angle: 92.5958 Slope Distance: 228.014USft Height of Rod: 5.36USft
Description: NS
3782 Note: Horizontal Angle Error: 0.0002
3783 Note: Zenith Angle Error: 0.0005
3784 Note: Slope Distance Error: 0.0
3785 Note: Horizontal Angle Error compares to the average:
0.0000
3786 Note: Zenith Angle Error compares to the average:
0.0000
3787 Note: Slope Distance Error compares to the average: 0.0
3788 Side Shot: Occupy Point: 426
Foresight Point: 428 Angle Right: 255.1537 Zenith
Angle: 93.00005 Slope Distance: 228.014USft Description: NS
3789 Note: Foresight Target:My Prism, HR:5.08 (5.08 + 0.0
Offset), Prism Const.:0.0mm
3790 Occupy Pt: Occupy Point: 428
Northing: 1144914.024062USft Easting: 619489.016325USft
Elevation: 265.407956USft Description: NS
3791 Note: HR:5.08 (5.08 + 0.0 Offset)
3792 Line of Sight (HI/HR): Height of Instrument: 5.21USft
Height of Rod: 5.08USft
3793 Backsight: Occupy Point: 428
Backsight Point: 426 Backsight Azimuth: 271.213913 Backsight
Circle: 0.0000
3794 Note: Fixed HR at Backsight:5.08 (5.08 + 0.0 Offset),
Prism Const.:0.0mm
3795 Note: BS check 428 - 426:ZE87.0006,SD228.002,HD err= -
0.011608, VD err= 0.012197
3796 Note: BS Circle check : angular err= 0.0000
3797 Note: BS check 428 - 426:ZE87.0003,SD227.998,HD err= -
0.015776, VD err= 0.015299
3798 Note: BS Circle check : angular err= 0.0000
3799 Note: BS check 428 - 426:ZE87.0003,SD228.0,HD err= -

0.013778, VD err= 0.015404
3800 Note: BS Circle check : angular err= 0.0000
3801 Note: Foresight Target:My Prism, HR:5.07 (5.07 + 0.0 Offset), Prism Const.:0.0mm
3802 Occupy Pt: Occupy Point: 428 Northing: 1144914.024062USft Easting: 619489.016325USft Elevation: 265.407956USft Description: NS
3803 Note: HR:5.07 (5.07 + 0.0 Offset)
3804 Line of Sight (HI/HR): Height of Instrument: 5.21USft Height of Rod: 5.07USft
3805 Backsight: Occupy Point: 428 Backsight Point: 426 Backsight Azimuth: 271.213913 Backsight Circle: 0.0000
3806 Note: Fixed HR at Backsight:5.07 (5.07 + 0.0 Offset), Prism Const.:0.0mm
3807 Note: BS check 428 - 426:ZE87.0004,SD228.002,HD err= -0.011723, VD err= 0.024405
3808 Note: BS Circle check : angular err= 0.0000
3809 Note: Foresight Target:My Prism, HR:5.09 (5.09 + 0.0 Offset), Prism Const.:0.0mm
3810 Occupy Pt: Occupy Point: 428 Northing: 1144914.024062USft Easting: 619489.016325USft Elevation: 265.407956USft Description: NS
3811 Note: HR:5.09 (5.09 + 0.0 Offset)
3812 Line of Sight (HI/HR): Height of Instrument: 5.21USft Height of Rod: 5.09USft
3813 Backsight: Occupy Point: 428 Backsight Point: 426 Backsight Azimuth: 271.213913 Backsight Circle: 0.0000
3814 Note: Fixed HR at Backsight:5.09 (5.09 + 0.0 Offset), Prism Const.:0.0mm
3815 Note: BS check 428 - 426:ZE87.0004,SD228.002,HD err= -0.011723, VD err= 0.004405
3816 Note: BS Circle check : angular err= 0.0000
3817 Side Shot: Occupy Point: 428 Foresight Point: 429 Angle Right: 0.0000 Zenith Angle: 87.0004 Slope Distance: 228.0USft Description: CHK426
3818 Note: Foresight Target:My Prism, HR:5.28 (5.28 + 0.0 Offset), Prism Const.:0.0mm
3819 Note: HR:5.28 (5.28 + 0.0 Offset)
3820 Line of Sight (HI/HR): Height of Instrument: 5.21USft Height of Rod: 5.28USft
3821 Repeat Directional: Backsight Direct Set: 1 Angle: 0.0000
3822 Repeat Directional: Backsight Reverse Set: 1 Angle: 180.0004
3823 Repeat Directional: Foresight Reverse Set: 1 Angle: 352.0022
3824 Repeat Directional: Zenith Reverse Set: 1 Zenith: 261.5533
3825 Multiple Distances: Set: 1 Slope Distance: 294.854USft
3826 Repeat Foresight: Occupy Point: 428 Foresight Point: 430 Angle Right: 352.0022 Zenith Angle: 261.5533 Slope Distance: 294.854USft Height of Rod: 5.28USft Description: NS
3827 Repeat Directional: Foresight Direct Set: 1 Angle: 172.0024
3828 Repeat Directional: Zenith Direct Set: 1 Zenith: 98.0429
3829 Multiple Distances: Set: 1 Slope Distance: 294.866USft
3830 Repeat Foresight: Occupy Point: 428 Foresight Point: 430 Angle Right: 172.0024 Zenith Angle: 98.0429 Slope Distance: 294.866USft Height of Rod: 5.28USft Description: NS
3831 Note: Horizontal Angle Error: 0.0006

3832 Note: Zenith Angle Error: 0.0002
3833 Note: Slope Distance Error: 0.012
3834 Note: Horizontal Angle Error compares to the average: 0.0000
3835 Note: Zenith Angle Error compares to the average: 0.0000
3836 Note: Slope Distance Error compares to the average: 0.0
3837 Side Shot: Occupy Point: 428 Foresight Point: 430 Angle Right: 172.0021 Zenith Angle: 98.0428 Slope Distance: 294.86USft Description: NS
3838 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
3839 Occupy Pt: Occupy Point: 430 Northing: 1144947.746985USft Easting: 619778.998919USft Elevation: 223.922027USft Description: NS
3840 Note: HR:4.97 (4.97 + 0.0 Offset)
3841 Line of Sight (HI/HR): Height of Instrument: 5.25USft Height of Rod: 4.97USft
3842 Backsight: Occupy Point: 430 Backsight Point: 428 Backsight Azimuth: 263.220013 Backsight Circle: 0.0000
3843 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
3844 Note: BS check 430 - 428:ZE81.5752,SD294.82,HD err= -0.011564, VD err= 0.00625
3845 Note: BS Circle check : angular err= 0.0000
3846 Side Shot: Occupy Point: 430 Foresight Point: 431 Angle Right: 0.0000 Zenith Angle: 81.5752 Slope Distance: 294.82USft Description: CHK428
3847 Note: Date: 03-22-2007 Time: 11:45:00
3848 Occupy Pt: Occupy Point: 430 Northing: 1144947.746985USft Easting: 619778.998919USft Elevation: 223.922027USft Description: NS
3849 Backsight: Occupy Point: 430 Backsight Point: 428 Backsight Azimuth: 263.220013 Backsight Circle: 0.0000
3850 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
3851 Note: BS check 430 - 428:ZE81.5751,SD294.822,HD err= -0.009783, VD err= 0.007945
3852 Note: BS Circle check : angular err= 0.0000
3853 Note: Foresight Target:My Prism, HR:5.07 (5.07 + 0.0 Offset), Prism Const.:0.0mm
3854 Note: HR:5.07 (5.07 + 0.0 Offset)
3855 Line of Sight (HI/HR): Height of Instrument: 5.25USft Height of Rod: 5.07USft
3856 Repeat Directional: Backsight Direct Set: 1 Angle: 0.0000
3857 Repeat Directional: Backsight Reverse Set: 1 Angle: 180.0003
3858 Repeat Directional: Foresight Reverse Set: 1 Angle: 62.1609
3859 Repeat Directional: Zenith Reverse Set: 1 Zenith: 274.0841
3860 Multiple Distances: Set: 1 Slope Distance: 537.35USft
3861 Repeat Foresight: Occupy Point: 430 Foresight Point: 432 Angle Right: 62.1609 Zenith Angle: 274.0841 Slope Distance: 537.35USft Height of Rod: 5.07USft Description: NS
3862 Repeat Directional: Foresight Direct Set: 1 Angle: 242.1611
3863 Repeat Directional: Zenith Direct Set: 1 Zenith: 85.5114
3864 Multiple Distances: Set: 1 Slope Distance: 537.36USft
3865 Repeat Foresight: Occupy Point: 430

Foresight Point: 432 Angle Right: 242.1611 Zenith
Angle: 85.5114 Slope Distance: 537.36USft Height of Rod: 5.07USft
Description: NS
3866 Note: Horizontal Angle Error: 0.0005
3867 Note: Zenith Angle Error: 0.0005
3868 Note: Slope Distance Error: 0.01
3869 Note: Horizontal Angle Error compares to the average:
0.0000
3870 Note: Zenith Angle Error compares to the average:
0.0000
3871 Note: Slope Distance Error compares to the average: 0.0
3872 Side Shot: Occupy Point: 430
Foresight Point: 432 Angle Right: 242.16085 Zenith
Angle: 85.51165 Slope Distance: 537.355USft Description: NS
3873 Note: Foresight Target:My Prism, HR:5.18 (5.18 + 0.0
Offset), Prism Const.:0.0mm
3874 Occupy Pt: Occupy Point: 432
Northing: 1144505.339351USft Easting: 620081.516684USft
Elevation: 262.946379USft Description: NS
3875 Note: HR:5.18 (5.18 + 0.0 Offset)
3876 Line of Sight (HI/HR): Height of Instrument: 5.33USft
Height of Rod: 5.18USft
3877 Backsight: Occupy Point: 432
Backsight Point: 430 Backsight Azimuth: 325.380863 Backsight
Circle: 0.0000
3878 Note: Fixed HR at Backsight:5.18 (5.18 + 0.0 Offset),
Prism Const.:0.0mm
3879 Note: BS check 432 - 430:ZE94.1048,SD537.364,HD err= -
0.014568, VD err= 0.005856
3880 Note: BS Circle check : angular err= 0.0000
3881 Side Shot: Occupy Point: 432
Foresight Point: 433 Angle Right: 0.0000 Zenith
Angle: 94.1047 Slope Distance: 537.37USft Description: CHK430
3882 Note: Date: 03-22-2007 Time: 12:08:20
3883 Note: Foresight Target:My Prism, HR:5.07 (5.07 + 0.0
Offset), Prism Const.:0.0mm
3884 Note: HR:5.07 (5.07 + 0.0 Offset)
3885 Line of Sight (HI/HR): Height of Instrument: 5.33USft
Height of Rod: 5.07USft
3886 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
3887 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0005
3888 Repeat Directional: Foresight Reverse
Set: 1 Angle: 14.5034
3889 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 270.5331
3890 Multiple Distances: Set: 1
Slope Distance: 236.416USft
3891 Repeat Foresight: Occupy Point: 432
Foresight Point: 434 Angle Right: 14.5034 Zenith
Angle: 270.5331 Slope Distance: 236.416USft Height of Rod: 5.07USft
Description: NS
3892 Repeat Directional: Foresight Direct
Set: 1 Angle: 194.5030
3893 Repeat Directional: Zenith Direct
Set: 1 Zenith: 89.0627
3894 Multiple Distances: Set: 1
Slope Distance: 236.416USft
3895 Repeat Foresight: Occupy Point: 432
Foresight Point: 434 Angle Right: 194.5030 Zenith
Angle: 89.0627 Slope Distance: 236.416USft Height of Rod: 5.07USft
Description: NS
3896 Note: Horizontal Angle Error: 0.0001
3897 Note: Zenith Angle Error: 0.0002
3898 Note: Slope Distance Error: 0.0
3899 Note: Horizontal Angle Error compares to the average:

0.0000
3900 Note: Zenith Angle Error compares to the average: 0.0000
3901 Note: Slope Distance Error compares to the average: 0.0
3902 Side Shot: Occupy Point: 432
Foresight Point: 434 Angle Right: 194.50295 Zenith Angle: 89.0628 Slope Distance: 236.416USft Description: NS
3903 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
3904 Note: HR:4.97 (4.97 + 0.0 Offset)
3905 Line of Sight (HI/HR): Height of Instrument: 5.33USft
Height of Rod: 4.97USft
3906 Side Shot: Occupy Point: 432
Foresight Point: 435 Angle Right: 179.1545 Zenith Angle: 89.1316 Slope Distance: 180.772USft Description: C-1101ALT
3907 Note: Foresight Target:My Prism, HR:5.12 (5.12 + 0.0 Offset), Prism Const.:0.0mm
3908 Occupy Pt: Occupy Point: 434
Northing: 1144282.542178USft Easting: 620160.512838USft
Elevation: 266.887752USft Description: NS
3909 Note: HR:5.12 (5.12 + 0.0 Offset)
3910 Line of Sight (HI/HR): Height of Instrument: 5.08USft
Height of Rod: 5.12USft
3911 Backsight: Occupy Point: 434
Backsight Point: 432 Backsight Azimuth: 340.283813 Backsight Circle: 0.0000
3912 Note: Fixed HR at Backsight:5.12 (5.12 + 0.0 Offset), Prism Const.:0.0mm
3913 Note: BS check 434 - 432:ZE90.5636,SD236.436,HD err= 0.016619, VD err= 0.008801
3914 Note: BS Circle check : angular err= 0.0000
3915 Note: Foresight Target:My Prism, HR:5.13 (5.13 + 0.0 Offset), Prism Const.:0.0mm
3916 Occupy Pt: Occupy Point: 434
Northing: 1144282.542178USft Easting: 620160.512838USft
Elevation: 266.887752USft Description: NS
3917 Note: HR:5.13 (5.13 + 0.0 Offset)
3918 Line of Sight (HI/HR): Height of Instrument: 5.08USft
Height of Rod: 5.13USft
3919 Backsight: Occupy Point: 434
Backsight Point: 432 Backsight Azimuth: 340.283813 Backsight Circle: 0.0000
3920 Note: Fixed HR at Backsight:5.13 (5.13 + 0.0 Offset), Prism Const.:0.0mm
3921 Note: BS check 434 - 432:ZE90.5636,SD236.432,HD err= 0.01262, VD err= -0.001133
3922 Note: BS Circle check : angular err= 0.0000
3923 Side Shot: Occupy Point: 434
Foresight Point: 436 Angle Right: 0.0000 Zenith Angle: 90.5636 Slope Distance: 236.43USft Description: CHK432
3924 Note: Foresight Target:My Prism, HR:5.34 (5.34 + 0.0 Offset), Prism Const.:0.0mm
3925 Note: HR:5.34 (5.34 + 0.0 Offset)
3926 Line of Sight (HI/HR): Height of Instrument: 5.08USft
Height of Rod: 5.34USft
3927 Store Point: Point Name: 437
Northing: 1144094.692929USft Easting: 620387.796339USft
Elevation: 264.034492USft Description: CHK9139
3928 Cut Sheet: Elevation: 264.034492USft
Design Grade: 264.029802
3929 Design Point/Location: Point Name: 9139
Northing: 1144094.804475USft Easting: 620387.77632USft
Elevation: 264.029802USft Description: NS
3930 Stakeout Deltas: Delta Northing: 0.111546USft
Delta Easting: -0.020019USft Delta Elevation: -0.00469USft
3931 Stakeout: Occupy Point: 434
Foresight Point: 437 Angle Right: 149.0547 Zenith

Angle: 90.3014 Slope Distance: 294.876USft Description: CHK9139
3932 Note: Date: 03-22-2007 Time: 12:27:39
3933 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
3934 Occupy Pt: Occupy Point: 11
Northing: 1142637.0645USft Easting: 621899.1089USft
Elevation: 218.904USft Description: #4RS
3935 Note: HR:4.97 (4.97 + 0.0 Offset)
3936 Line of Sight (HI/HR): Height of Instrument: 5.33USft
Height of Rod: 4.97USft
3937 Backsight: Occupy Point: 11
Backsight Point: 298 Backsight Azimuth: 226.22441 Backsight Circle: 0.0000
3938 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
3939 Note: BS check 11 - 298:ZE90.2158,SD464.656,HD err= -0.027848, VD err= 0.003833
3940 Note: BS Circle check : angular err= 0.0000
3941 Side Shot: Occupy Point: 11
Foresight Point: 438 Angle Right: 0.0000 Zenith Angle: 90.2159 Slope Distance: 464.656USft Description: CHK298
3942 Side Shot: Occupy Point: 11
Foresight Point: 439 Angle Right: 354.2446 Zenith Angle: 90.3138 Slope Distance: 40.354USft Description: C-3002
3943 Side Shot: Occupy Point: 11
Foresight Point: 440 Angle Right: 34.5306 Zenith Angle: 90.1733 Slope Distance: 174.594USft Description: C-3001
3944 Store Point: Point Name: 441
Northing: 1142316.49368USft Easting: 621562.721059USft
Elevation: 216.299267USft Description: CHK298
3945 Cut Sheet: Elevation: 216.299267USft
Design Grade: 216.291107
3946 Design Point/Location: Point Name: 298
Northing: 1142316.492173USft Easting: 621562.722744USft
Elevation: 216.291107USft Description: NS
3947 Stakeout Deltas: Delta Northing: -0.001506USft
Delta Easting: 0.001685USft Delta Elevation: -0.00816USft
3948 Stakeout: Occupy Point: 11
Foresight Point: 441 Angle Right: 0.0001 Zenith Angle: 90.2156 Slope Distance: 464.684USft Description: CHK298
3949 Occupy Pt: Occupy Point: 180
Northing: 1144184.012USft Easting: 621523.241USft
Elevation: 276.493USft Description: NS
3950 Note: HR:4.97 (4.97 + 0.0 Offset)
3951 Line of Sight (HI/HR): Height of Instrument: 5.11USft
Height of Rod: 4.97USft
3952 Backsight: Occupy Point: 180
Backsight Point: 178 Backsight Azimuth: 60.211553 Backsight Circle: 0.0000
3953 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
3954 Occupy Pt: Occupy Point: 180
Northing: 1144184.012USft Easting: 621523.241USft
Elevation: 276.493USft Description: NS
3955 Backsight: Occupy Point: 180
Backsight Point: 9129 Backsight Azimuth: 60.210544 Backsight Circle: 0.0000
3956 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
3957 Note: BS check 180 - 9129:ZE89.0142,SD343.954,HD err= 0.041351, VD err= 0.040434
3958 Note: BS Circle check : angular err= 0.0000
3959 Occupy Pt: Occupy Point: 180
Northing: 1144184.012USft Easting: 621523.241USft
Elevation: 276.493USft Description: NS
3960 Backsight: Occupy Point: 180
Backsight Point: 178 Backsight Azimuth: 60.211553 Backsight

Circle: 0.0000
3961 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
3962 Note: BS check 180 - 178:ZE89.0143,SD343.956,HD err= 0.016651, VD err= 0.019128
3963 Note: BS Circle check : angular err= 0.0000
3964 Note: BS check 180 - 178:ZE89.0145,SD343.942,HD err= 0.002709, VD err= 0.015556
3965 Note: BS Circle check : angular err= 0.0001
3966 Occupy Pt: Occupy Point: 180
Northing: 1144184.012USft Easting: 621523.241USft
Elevation: 276.493USft Description: NS
3967 Backsight: Occupy Point: 180
Backsight Point: 178 Backsight Azimuth: 60.211553 Backsight Circle: 0.0000
3968 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
3969 Note: BS check 180 - 178:ZE89.0147,SD343.972,HD err= 0.032761, VD err= 0.01273
3970 Note: BS Circle check : angular err= 0.0000
3971 Note: BS check 180 - 178:ZE89.0147,SD343.974,HD err= 0.034761, VD err= 0.012764
3972 Note: BS Circle check : angular err= 0.0000
3973 Note: BS check 180 - 178:ZE89.0148,SD343.954,HD err= 0.014792, VD err= 0.010758
3974 Note: BS Circle check : angular err= 0.0000
3975 Side Shot: Occupy Point: 180
Foresight Point: 442 Angle Right: 0.0000 Zenith Angle: 89.0148 Slope Distance: 343.96USft Description: CHK178
3976 Note: Date: 03-22-2007 Time: 13:45:43
3977 Off Center Shot: Angle Right: 100.1651
Zenith Angle: 92.2034 Slope Distance: 311.81USft
3978 Off Center Shot: Left/Right Offset: -2.0USft
Description: Left / Right Offset
3979 Side Shot: Occupy Point: 180
Foresight Point: 443 Angle Right: 99.54469 Zenith Angle: 92.203383 Slope Distance: 311.816414USft Description: B-1117
3980 Store Point: Point Name: 444
Northing: 1144354.119359USft Easting: 621822.128929USft
Elevation: 282.450756USft Description: CHK178
3981 Cut Sheet: Elevation: 282.450756USft
Design Grade: 282.445
3982 Design Point/Location: Point Name: 178
Northing: 1144354.112USft Easting: 621822.116USft
Elevation: 282.445USft Description: NS
3983 Stakeout Deltas: Delta Northing: -0.007359USft
Delta Easting: -0.012929USft Delta Elevation: -0.005756USft
3984 Stakeout: Occupy Point: 180
Foresight Point: 444 Angle Right: 0.0000 Zenith Angle: 89.0151 Slope Distance: 343.954USft Description: CHK178
3985 Note: Foresight Target:My Prism, HR:5.27 (5.27 + 0.0 Offset), Prism Const.:0.0mm
3986 Occupy Pt: Occupy Point: 409
Northing: 1143681.686342USft Easting: 619899.804434USft
Elevation: 242.590997USft Description: NS
3987 Note: HR:5.27 (5.27 + 0.0 Offset)
3988 Line of Sight (HI/HR): Height of Instrument: 5.32USft
Height of Rod: 5.27USft
3989 Backsight: Occupy Point: 409
Backsight Point: 9143 Backsight Azimuth: 315.541713 Backsight Circle: 0.0000
3990 Note: Fixed HR at Backsight:5.27 (5.27 + 0.0 Offset), Prism Const.:0.0mm
3991 Note: BS check 409 - 9143:ZE89.1118,SD297.482,HD err= -0.019098, VD err= -0.037131
3992 Note: BS Circle check : angular err= 0.0000
3993 Note: Foresight Target:My Prism, HR:5.26 (5.26 + 0.0

Offset), Prism Const.:0.0mm
3994 Occupy Pt: Occupy Point: 409
Northing: 1143681.686342USft Easting: 619899.804434USft
Elevation: 242.590997USft Description: NS
3995 Note: HR:5.26 (5.26 + 0.0 Offset)
3996 Line of Sight (HI/HR): Height of Instrument: 5.32USft
Height of Rod: 5.26USft
3997 Backsight: Occupy Point: 409
Backsight Point: 9143 Backsight Azimuth: 315.541713 Backsight
Circle: 0.0000
3998 Note: Fixed HR at Backsight:5.26 (5.26 + 0.0 Offset),
Prism Const.:0.0mm
3999 Note: BS check 409 - 9143:ZE89.1120,SD297.494,HD err= -
0.007058, VD err= -0.029845
4000 Note: BS Circle check : angular err= 0.0000
4001 Occupy Pt: Occupy Point: 409
Northing: 1143681.686342USft Easting: 619899.804434USft
Elevation: 242.590997USft Description: NS
4002 Note: HR:5.26 (5.26 + 0.0 Offset)
4003 Line of Sight (HI/HR): Height of Instrument: 5.33USft
Height of Rod: 5.26USft
4004 Backsight: Occupy Point: 409
Backsight Point: 9143 Backsight Azimuth: 315.541713 Backsight
Circle: 0.0000
4005 Note: Fixed HR at Backsight:5.26 (5.26 + 0.0 Offset),
Prism Const.:0.0mm
4006 Note: BS check 409 - 9143:ZE89.1120,SD297.47,HD err= -
0.031056, VD err= -0.020185
4007 Note: BS Circle check : angular err= 0.0000
4008 Side Shot: Occupy Point: 409
Foresight Point: 445 Angle Right: 0.0000 Zenith
Angle: 89.1120 Slope Distance: 297.476USft Description: CHK9143
4009 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
4010 Note: HR:4.97 (4.97 + 0.0 Offset)
4011 Line of Sight (HI/HR): Height of Instrument: 5.33USft
Height of Rod: 4.97USft
4012 Side Shot: Occupy Point: 409
Foresight Point: 446 Angle Right: 152.3756 Zenith
Angle: 90.1639 Slope Distance: 333.79USft Description: B-1121
4013 Note: Foresight Target:My Prism, HR:5.26 (5.26 + 0.0
Offset), Prism Const.:0.0mm
4014 Note: HR:5.26 (5.26 + 0.0 Offset)
4015 Line of Sight (HI/HR): Height of Instrument: 5.33USft
Height of Rod: 5.26USft
4016 Side Shot: Occupy Point: 409
Foresight Point: 447 Angle Right: 0.0002 Zenith
Angle: 89.1120 Slope Distance: 297.482USft Description: CHK9143
4017 Occupy Pt: Occupy Point: 417
Northing: 1144269.025279USft Easting: 618873.095899USft
Elevation: 268.632552USft Description: NS
4018 Note: HR:5.26 (5.26 + 0.0 Offset)
4019 Line of Sight (HI/HR): Height of Instrument: 5.19USft
Height of Rod: 5.26USft
4020 Backsight: Occupy Point: 417
Backsight Point: 415 Backsight Azimuth: 348.332813 Backsight
Circle: 0.0000
4021 Note: Fixed HR at Backsight:5.26 (5.26 + 0.0 Offset),
Prism Const.:0.0mm
4022 Note: BS check 417 - 415:ZE86.3820,SD88.478,HD err= -
0.004578, VD err= -0.016853
4023 Note: BS Circle check : angular err= 0.0000
4024 Side Shot: Occupy Point: 417
Foresight Point: 448 Angle Right: 0.0000 Zenith
Angle: 86.3818 Slope Distance: 88.478USft Description: CHK415
4025 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm

4026 Note: HR:4.97 (4.97 + 0.0 Offset)
4027 Line of Sight (HI/HR): Height of Instrument: 5.19USft
Height of Rod: 4.97USft
4028 Side Shot: Occupy Point: 417
Foresight Point: 449 Angle Right: 223.2440 Zenith
Angle: 112.5351 Slope Distance: 66.01USft Description: B-1192
4029 Note: Foresight Target:My Prism, HR:5.27 (5.27 + 0.0
Offset), Prism Const.:0.0mm
4030 Note: HR:5.27 (5.27 + 0.0 Offset)
4031 Line of Sight (HI/HR): Height of Instrument: 5.19USft
Height of Rod: 5.27USft
4032 Note: Foresight Target:My Prism, HR:5.26 (5.26 + 0.0
Offset), Prism Const.:0.0mm
4033 Note: HR:5.26 (5.26 + 0.0 Offset)
4034 Line of Sight (HI/HR): Height of Instrument: 5.19USft
Height of Rod: 5.26USft
4035 Side Shot: Occupy Point: 417
Foresight Point: 450 Angle Right: 0.0001 Zenith
Angle: 86.3815 Slope Distance: 88.486USft Description: CHK415
4036 Note: Date: 03-22-2007 Time: 14:38:50
4037 Note: Foresight Target:My Prism, HR:5.13 (5.13 + 0.0
Offset), Prism Const.:0.0mm
4038 Occupy Pt: Occupy Point: 85
Northing: 1147644.595972USft Easting: 623507.073409USft
Elevation: 206.028USft Description: #4RS
4039 Note: HR:5.13 (5.13 + 0.0 Offset)
4040 Line of Sight (HI/HR): Height of Instrument: 5.16USft
Height of Rod: 5.13USft
4041 Backsight: Occupy Point: 85
Backsight Point: 87 Backsight Azimuth: 191.462062 Backsight
Circle: 0.0000
4042 Note: Fixed HR at Backsight:5.13 (5.13 + 0.0 Offset),
Prism Const.:0.0mm
4043 Note: BS check 85 - 87:ZE85.0727,SD436.734,HD err=
0.023644, VD err= -0.011065
4044 Note: BS Circle check : angular err= 0.0000
4045 Side Shot: Occupy Point: 85
Foresight Point: 451 Angle Right: 0.0000 Zenith
Angle: 85.0728 Slope Distance: 436.74USft Description: CHK87
4046 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
4047 Note: HR:4.97 (4.97 + 0.0 Offset)
4048 Line of Sight (HI/HR): Height of Instrument: 5.16USft
Height of Rod: 4.97USft
4049 Side Shot: Occupy Point: 85
Foresight Point: 452 Angle Right: 126.2220 Zenith
Angle: 93.5412 Slope Distance: 59.02USft Description: B-1168
4050 Note: Foresight Target:My Prism, HR:4.58 (4.58 + 0.0
Offset), Prism Const.:0.0mm
4051 Note: HR:4.58 (4.58 + 0.0 Offset)
4052 Line of Sight (HI/HR): Height of Instrument: 5.16USft
Height of Rod: 4.58USft
4053 Side Shot: Occupy Point: 85
Foresight Point: 453 Angle Right: 281.0520 Zenith
Angle: 90.2223 Slope Distance: 493.242USft Description: B-1166
4054 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
4055 Note: HR:4.97 (4.97 + 0.0 Offset)
4056 Line of Sight (HI/HR): Height of Instrument: 5.16USft
Height of Rod: 4.97USft
4057 Off Center Shot: Angle Right: 261.4656
Zenith Angle: 91.1411 Slope Distance: 246.748USft
4058 Off Center Shot: Left/Right Offset: 1.0USft
Description: Left / Right Offset
4059 Side Shot: Occupy Point: 85
Foresight Point: 454 Angle Right: 262.005212 Zenith
Angle: 91.141096 Slope Distance: 246.750026USft Description: C-1108

4060 Note: Date: 03-22-2007 Time: 14:58:12
4061 Note: Foresight Target:My Prism, HR:5.13 (5.13 + 0.0 Offset), Prism Const.:0.0mm
4062 Note: HR:5.13 (5.13 + 0.0 Offset)
4063 Line of Sight (HI/HR): Height of Instrument: 5.16USft Height of Rod: 5.13USft
4064 Side Shot: Occupy Point: 85 Foresight Point: 455 Angle Right: 0.0001 Zenith Angle: 85.0725 Slope Distance: 436.742USft Description: CHK87
4065 Note: Data Collector Serial Number: FS29A13023
4066 Note: Activating Total Station: Nikon TOP GUN [Nikon], COM1, 4800 baud, no parity
4067 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
4068 Note: Date: 03-27-2007 Time: 13:07:33
4069 Occupy Pt: Occupy Point: 197 Northing: 1145546.989539USft Easting: 624715.496972USft Elevation: 140.158579USft Description: NS
4070 Note: HR:4.97 (4.97 + 0.0 Offset)
4071 Line of Sight (HI/HR): Height of Instrument: 5.22USft Height of Rod: 4.97USft
4072 Backsight: Occupy Point: 197 Backsight Point: 200 Backsight Azimuth: 86.562612 Backsight Circle: 0.0000
4073 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
4074 Note: BS check 197 - 200:ZE92.2244,SD727.332,HD err= 0.018009, VD err= 0.013956
4075 Note: BS Circle check : angular err= 0.0000
4076 Side Shot: Occupy Point: 197 Foresight Point: 456 Angle Right: 0.0000 Zenith Angle: 92.2245 Slope Distance: 727.3USft Description: CHK200
4077 Side Shot: Occupy Point: 197 Foresight Point: 457 Angle Right: 24.5046 Zenith Angle: 93.5311 Slope Distance: 35.174USft Description: C-1106ALT
4078 Side Shot: Occupy Point: 197 Foresight Point: 458 Angle Right: 359.5959 Zenith Angle: 92.2243 Slope Distance: 727.328USft Description: CHK200
4079 Note: Date: 03-27-2007 Time: 13:31:41
4080 Note: HR:4.97 (4.97 + 0.0 Offset)
4081 Line of Sight (HI/HR): Height of Instrument: 5.14USft Height of Rod: 4.97USft
4082 Remote Elevation: Occupy Point: 70 Foresight Elevation: 225.046USft Zenith Angle: 90.3124 Slope Distance: 485.744USft Description: Remote elev
4083 Store Point: Point Name: 70 Northing: 1145923.840754USft Easting: 622542.258441USft Elevation: 229.31267USft Description: NS
4084 Occupy Pt: Occupy Point: 70 Northing: 1145923.840754USft Easting: 622542.258441USft Elevation: 229.31267USft Description: NS
4085 Backsight: Occupy Point: 70 Backsight Point: 25 Backsight Azimuth: 87.432141 Backsight Circle: 0.0000
4086 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
4087 Note: BS check 70 - 25:ZE90.3125,SD485.76,HD err= -0.015767, VD err= -0.002501
4088 Note: BS Circle check : angular err= 0.0000
4089 Side Shot: Occupy Point: 70 Foresight Point: 459 Angle Right: 0.0000 Zenith Angle: 90.3126 Slope Distance: 485.758USft Description: CHK25
4090 Side Shot: Occupy Point: 70 Foresight Point: 460 Angle Right: 59.5023 Zenith Angle: 89.5336 Slope Distance: 381.61USft Description: C-1104
4091 Side Shot: Occupy Point: 70 Foresight Point: 461 Angle Right: 0.0001 Zenith

Angle: 90.3126 Slope Distance: 485.766USft Description: CHK25
4092 Note: Foresight Target:My Prism, HR:4.91 (4.91 + 0.0 Offset), Prism Const.:0.0mm
4093 Occupy Pt: Occupy Point: 194
Northing: 1145469.620154USft Easting: 624087.485354USft
Elevation: 185.226676USft Description: NS
4094 Note: HR:4.91 (4.91 + 0.0 Offset)
4095 Line of Sight (HI/HR): Height of Instrument: 5.32USft
Height of Rod: 4.91USft
4096 Backsight: Occupy Point: 194
Backsight Point: 31 Backsight Azimuth: 359.143062 Backsight Circle: 0.0000
4097 Note: Fixed HR at Backsight:4.91 (4.91 + 0.0 Offset), Prism Const.:0.0mm
4098 Note: BS check 194 - 31:ZE86.2533,SD786.502,HD err= 0.00071, VD err= 0.007086
4099 Note: BS Circle check : angular err= 0.0000
4100 Side Shot: Occupy Point: 194
Foresight Point: 462 Angle Right: 0.0000 Zenith Angle: 86.2533 Slope Distance: 786.504USft Description: CHK31
4101 Note: Date: 03-27-2007 Time: 14:05:35
4102 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
4103 Note: HR:4.97 (4.97 + 0.0 Offset)
4104 Line of Sight (HI/HR): Height of Instrument: 5.32USft
Height of Rod: 4.97USft
4105 Repeat Directional: Backsight Direct
Set: 1 Angle: 359.5959
4106 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0005
4107 Repeat Directional: Foresight Reverse
Set: 1 Angle: 95.1129
4108 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 274.3902
4109 Multiple Distances: Set: 1
Slope Distance: 87.056USft
4110 Repeat Foresight: Occupy Point: 194
Foresight Point: 463 Angle Right: 95.1129 Zenith Angle: 274.3902 Slope Distance: 87.056USft Height of Rod: 4.97USft Description: NS
4111 Repeat Directional: Foresight Direct
Set: 1 Angle: 275.1125
4112 Repeat Directional: Zenith Direct
Set: 1 Zenith: 85.2048
4113 Multiple Distances: Set: 1
Slope Distance: 87.068USft
4114 Repeat Foresight: Occupy Point: 194
Foresight Point: 463 Angle Right: 275.1125 Zenith Angle: 85.2048 Slope Distance: 87.068USft Height of Rod: 4.97USft Description: NS
4115 Note: Horizontal Angle Error: 0.0002
4116 Note: Zenith Angle Error: 0.0010
4117 Note: Slope Distance Error: 0.012
4118 Note: Horizontal Angle Error compares to the average: 0.0000
4119 Note: Zenith Angle Error compares to the average: 0.0000
4120 Note: Slope Distance Error compares to the average: 0.0
4121 Side Shot: Occupy Point: 194
Foresight Point: 463 Angle Right: 275.1125 Zenith Angle: 85.2053 Slope Distance: 87.062USft Description: NS
4122 Occupy Pt: Occupy Point: 463
Northing: 1145476.325959USft Easting: 624000.96965USft
Elevation: 192.637628USft Description: NS
4123 Note: HR:4.97 (4.97 + 0.0 Offset)
4124 Line of Sight (HI/HR): Height of Instrument: 5.18USft
Height of Rod: 4.97USft

4125 Backsight: Occupy Point: 463
Backsight Point: 31 Backsight Azimuth: 5.351433 Backsight Circle: 0.0000
4126 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
4127 Note: BS check 463 - 31:ZE86.5624,SD782.986,HD err= -0.042243, VD err= -0.015794
4128 Note: BS Circle check : angular err= 0.0000
4129 Note: BS check 463 - 31:ZE86.5624,SD783.0,HD err= -0.028263, VD err= -0.015047
4130 Note: BS Circle check : angular err= 0.0000
4131 Side Shot: Occupy Point: 463
Foresight Point: 464 Angle Right: 0.0000 Zenith Angle: 86.5622 Slope Distance: 783.006USft Description: CHK31
4132 Side Shot: Occupy Point: 463
Foresight Point: 465 Angle Right: 265.5038 Zenith Angle: 88.2041 Slope Distance: 267.486USft Description: C-1105
4133 Note: Foresight Target:My Prism, HR:5.15 (5.15 + 0.0 Offset), Prism Const.:0.0mm
4134 Occupy Pt: Occupy Point: 47
Northing: 1146777.088277USft Easting: 624448.979567USft
Elevation: 225.215USft Description: PT8006
4135 Note: HR:5.15 (5.15 + 0.0 Offset)
4136 Line of Sight (HI/HR): Height of Instrument: 5.24USft
Height of Rod: 5.15USft
4137 Backsight: Occupy Point: 47
Backsight Point: 49 Backsight Azimuth: 49.445562 Backsight Circle: 0.0000
4138 Note: Fixed HR at Backsight:5.15 (5.15 + 0.0 Offset), Prism Const.:0.0mm
4139 Note: BS check 47 - 49:ZE90.0811,SD281.352,HD err= 0.00182, VD err= 0.01326
4140 Note: BS Circle check : angular err= 0.0000
4141 Note: BS check 47 - 49:ZE90.0811,SD281.344,HD err= -0.00618, VD err= 0.013279
4142 Note: BS Circle check : angular err= 0.0000
4143 Side Shot: Occupy Point: 47
Foresight Point: 466 Angle Right: 0.0001 Zenith Angle: 90.0811 Slope Distance: 281.35USft Description: CHK49
4144 Occupy Pt: Occupy Point: 47
Northing: 1146777.088277USft Easting: 624448.979567USft
Elevation: 225.215USft Description: PT8006
4145 Backsight: Occupy Point: 47
Backsight Point: 49 Backsight Azimuth: 49.445562 Backsight Circle: 0.0000
4146 Note: Fixed HR at Backsight:5.15 (5.15 + 0.0 Offset), Prism Const.:0.0mm
4147 Note: BS check 47 - 49:ZE90.0808,SD281.35,HD err= -0.00017, VD err= 0.017357
4148 Note: BS Circle check : angular err= 0.0000
4149 Note: Foresight Target:My Prism, HR:5.5 (5.5 + 0.0 Offset), Prism Const.:0.0mm
4150 Note: HR:5.5 (5.5 + 0.0 Offset)
4151 Line of Sight (HI/HR): Height of Instrument: 5.24USft
Height of Rod: 5.5USft
4152 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
4153 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0005
4154 Repeat Directional: Foresight Reverse
Set: 1 Angle: 137.2707
4155 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 268.4540
4156 Multiple Distances: Set: 1
Slope Distance: 218.652USft
4157 Repeat Foresight: Occupy Point: 47
Foresight Point: 467 Angle Right: 137.2707 Zenith

Angle: 268.4540 Slope Distance: 218.652USft Height of Rod: 5.5USft
Description: NS
4158 Repeat Directional: Foresight Direct
Set: 1 Angle: 317.2701
4159 Repeat Directional: Zenith Direct
Set: 1 Zenith: 91.1415
4160 Multiple Distances: Set: 1
Slope Distance: 218.682USft
4161 Repeat Foresight: Occupy Point: 47
Foresight Point: 467 Angle Right: 317.2701 Zenith
Angle: 91.1415 Slope Distance: 218.682USft Height of Rod: 5.5USft
Description: NS
4162 Note: Horizontal Angle Error: 0.0001
4163 Note: Zenith Angle Error: 0.0005
4164 Note: Slope Distance Error: 0.03
4165 Note: Horizontal Angle Error compares to the average:
0.0000
4166 Note: Zenith Angle Error compares to the average:
0.0000
4167 Note: Slope Distance Error compares to the average: 0.0
4168 Side Shot: Occupy Point: 47
Foresight Point: 467 Angle Right: 317.27015 Zenith
Angle: 91.14175 Slope Distance: 218.667USft Description: NS
4169 Note: Foresight Target:My Prism, HR:5.15 (5.15 + 0.0
Offset), Prism Const.:0.0mm
4170 Occupy Pt: Occupy Point: 467
Northing: 1146993.980749USft Easting: 624476.37638USft
Elevation: 220.229849USft Description: NS
4171 Note: HR:5.15 (5.15 + 0.0 Offset)
4172 Line of Sight (HI/HR): Height of Instrument: 5.16USft
Height of Rod: 5.15USft
4173 Backsight: Occupy Point: 467
Backsight Point: 49 Backsight Azimuth: 100.364538 Backsight
Circle: 0.0000
4174 Note: Fixed HR at Backsight:5.15 (5.15 + 0.0 Offset),
Prism Const.:0.0mm
4175 Note: Date: 03-27-2007 Time: 14:48:41
4176 Note: BS check 467 - 49:ZE88.4045,SD190.616,HD err= -
0.029104, VD err= 0.01171
4177 Note: BS Circle check : angular err= 0.0000
4178 Side Shot: Occupy Point: 467
Foresight Point: 468 Angle Right: 0.0001 Zenith
Angle: 88.4045 Slope Distance: 190.618USft Description: CHK49
4179 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
4180 Note: HR:4.97 (4.97 + 0.0 Offset)
4181 Line of Sight (HI/HR): Height of Instrument: 5.16USft
Height of Rod: 4.97USft
4182 Side Shot: Occupy Point: 467
Foresight Point: 469 Angle Right: 210.3523 Zenith
Angle: 91.2010 Slope Distance: 364.342USft Description: C-1107
4183 Note: Foresight Target:My Prism, HR:5.15 (5.15 + 0.0
Offset), Prism Const.:0.0mm
4184 Note: HR:5.15 (5.15 + 0.0 Offset)
4185 Line of Sight (HI/HR): Height of Instrument: 5.16USft
Height of Rod: 5.15USft
4186 Side Shot: Occupy Point: 467
Foresight Point: 470 Angle Right: 0.0004 Zenith
Angle: 88.4047 Slope Distance: 190.618USft Description: CHK49
4187 Note: Date: 03-27-2007 Time: 15:13:57
4188 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
4189 Occupy Pt: Occupy Point: 101
Northing: 1147728.540024USft Easting: 622995.769792USft
Elevation: 198.421424USft Description: NS
4190 Note: HR:4.97 (4.97 + 0.0 Offset)
4191 Line of Sight (HI/HR): Height of Instrument: 5.11USft

Height of Rod: 4.97USft
4192 Backsight: Occupy Point: 101
Backsight Point: 87 Backsight Azimuth: 140.211612 Backsight Circle: 0.0000
4193 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
4194 Note: BS check 101 - 87:ZE86.0909,SD663.716,HD err= -0.009793, VD err= -0.092511
4195 Note: BS Circle check : angular err= 0.0000
4196 Note: BS check 101 - 87:ZE86.0909,SD663.73,HD err= 0.004175, VD err= -0.091572
4197 Note: BS Circle check : angular err= 0.0000
4198 Occupy Pt: Occupy Point: 101
Northing: 1147728.540024USft Easting: 622995.769792USft
Elevation: 198.421424USft Description: NS
4199 Backsight: Occupy Point: 101
Backsight Point: 87 Backsight Azimuth: 140.211612 Backsight Circle: 0.0000
4200 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
4201 Note: BS check 101 - 87:ZE86.0907,SD663.744,HD err= 0.017712, VD err= -0.084211
4202 Note: BS Circle check : angular err= 0.0000
4203 Note: BS check 101 - 87:ZE86.0842,SD663.738,HD err= 0.006322, VD err= -0.004348
4204 Note: BS Circle check : angular err= 0.0000
4205 Side Shot: Occupy Point: 101
Foresight Point: 471 Angle Right: 0.0000 Zenith Angle: 86.0845 Slope Distance: 663.742USft Description: CHK87
4206 Note: Foresight Target:My Prism, HR:8.5 (8.5 + 0.0 Offset), Prism Const.:0.0mm
4207 Note: HR:8.5 (8.5 + 0.0 Offset)
4208 Line of Sight (HI/HR): Height of Instrument: 5.11USft
Height of Rod: 8.5USft
4209 Side Shot: Occupy Point: 101
Foresight Point: 472 Angle Right: 340.4732 Zenith Angle: 85.5352 Slope Distance: 206.306USft Description: C-1109
4210 Note: Date: 03-27-2007 Time: 15:35:38
4211 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
4212 Note: HR:4.97 (4.97 + 0.0 Offset)
4213 Line of Sight (HI/HR): Height of Instrument: 5.11USft
Height of Rod: 4.97USft
4214 Side Shot: Occupy Point: 101
Foresight Point: 473 Angle Right: 0.0000 Zenith Angle: 86.0902 Slope Distance: 663.74USft Description: CHK87
4215 Occupy Pt: Occupy Point: 70
Northing: 1145923.840754USft Easting: 622542.258441USft
Elevation: 229.31267USft Description: NS
4216 Note: HR:4.97 (4.97 + 0.0 Offset)
4217 Line of Sight (HI/HR): Height of Instrument: 5.25USft
Height of Rod: 4.97USft
4218 Backsight: Occupy Point: 70
Backsight Point: 23 Backsight Azimuth: 243.022463 Backsight Circle: 0.0000
4219 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
4220 Note: BS check 70 - 23:ZE89.1324,SD566.856,HD err= -0.006897, VD err= -0.00261
4221 Note: BS Circle check : angular err= 0.0000
4222 Side Shot: Occupy Point: 70
Foresight Point: 474 Angle Right: 0.0000 Zenith Angle: 89.1322 Slope Distance: 566.856USft Description: CHK23
4223 Side Shot: Occupy Point: 70
Foresight Point: 475 Angle Right: 87.1914 Zenith Angle: 90.2029 Slope Distance: 635.358USft Description: B-1174
4224 Store Point: Point Name: 476

Northing: 1145943.145233USft Easting: 623027.629234USft
Elevation: 225.026182USft Description: CHK25
4225 Cut Sheet: Elevation: 225.026182USft
Design Grade: 225.046
4226 Design Point/Location: Point Name: 25
Northing: 1145943.143416USft Easting: 623027.630253USft
Elevation: 225.046USft Description: #4RS
4227 Stakeout Deltas: Delta Northing: -0.001817USft
Delta Easting: 0.001019USft Delta Elevation: 0.019818USft
4228 Stakeout: Occupy Point: 70
Foresight Point: 476 Angle Right: 204.4056 Zenith
Angle: 90.3219 Slope Distance: 485.776USft Description: CHK25
4229 Note: Date: 03-27-2007 Time: 16:54:33
4230 Note: Data Collector Serial Number: FS29A13023
4231 Note: Activating Total Station: Nikon TOP GUN [Nikon],
COM1, 4800 baud, no parity
4232 Note: Foresight Target:My Prism, HR:5.14 (5.14 + 0.0
Offset), Prism Const.:0.0mm
4233 Note: Foresight Target:My Prism, HR:4.82 (4.82 + 0.0
Offset), Prism Const.:0.0mm
4234 Occupy Pt: Occupy Point: 103
Northing: 1147554.052416USft Easting: 622478.488412USft
Elevation: 222.662545USft Description: NS
4235 Note: HR:4.82 (4.82 + 0.0 Offset)
4236 Line of Sight (HI/HR): Height of Instrument: 5.18USft
Height of Rod: 4.82USft
4237 Backsight: Occupy Point: 103
Backsight Point: 106 Backsight Azimuth: 240.014512 Backsight
Circle: 0.0000
4238 Note: Fixed HR at Backsight:4.82 (4.82 + 0.0 Offset),
Prism Const.:0.0mm
4239 Note: BS check 103 - 106:ZE90.1626,SD382.836,HD err= -
0.033949, VD err= -0.017605
4240 Note: BS Circle check : angular err= 0.0000
4241 Note: BS check 103 - 106:ZE90.1626,SD382.834,HD err= -
0.035949, VD err= -0.017595
4242 Note: BS Circle check : angular err= 0.0000
4243 Side Shot: Occupy Point: 103
Foresight Point: 477 Angle Right: 0.0000 Zenith
Angle: 90.1626 Slope Distance: 382.834USft Description: CHK106
4244 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
4245 Occupy Pt: Occupy Point: 103
Northing: 1147554.052416USft Easting: 622478.488412USft
Elevation: 222.662545USft Description: NS
4246 Note: HR:4.97 (4.97 + 0.0 Offset)
4247 Line of Sight (HI/HR): Height of Instrument: 5.18USft
Height of Rod: 4.97USft
4248 Backsight: Occupy Point: 103
Backsight Point: 106 Backsight Azimuth: 240.014512 Backsight
Circle: 0.0000
4249 Note: Fixed HR at Backsight:4.82 (4.82 + 0.0 Offset),
Prism Const.:0.0mm
4250 Note: BS check 103 - 106:ZE90.1628,SD382.834,HD err= -
0.035967, VD err= -0.021307
4251 Note: BS Circle check : angular err= 0.0000
4252 Note: Date: 04-02-2007 Time: 08:43:23
4253 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
4254 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0000
4255 Repeat Directional: Foresight Reverse
Set: 1 Angle: 41.4145
4256 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 268.5422
4257 Multiple Distances: Set: 1
Slope Distance: 377.08USft

4258 Repeat Foresight: Occupy Point: 103
Foresight Point: 478 Angle Right: 41.4145 Zenith
Angle: 268.5422 Slope Distance: 377.08USft Height of Rod: 4.97USft
Description: NS
4259 Repeat Directional: Foresight Direct
Set: 1 Angle: 221.4144
4260 Repeat Directional: Zenith Direct
Set: 1 Zenith: 91.0550
4261 Multiple Distances: Set: 1
Slope Distance: 377.126USft
4262 Repeat Foresight: Occupy Point: 103
Foresight Point: 478 Angle Right: 221.4144 Zenith
Angle: 91.0550 Slope Distance: 377.126USft Height of Rod: 4.97USft
Description: NS
4263 Note: Horizontal Angle Error: 0.0001
4264 Note: Zenith Angle Error: 0.0012
4265 Note: Slope Distance Error: 0.046
4266 Note: Horizontal Angle Error compares to the average:
0.0000
4267 Note: Zenith Angle Error compares to the average:
0.0000
4268 Note: Slope Distance Error compares to the average: 0.0
4269 Side Shot: Occupy Point: 103
Foresight Point: 478 Angle Right: 221.41445 Zenith
Angle: 91.0544 Slope Distance: 377.103USft Description: NS
4270 Occupy Pt: Occupy Point: 103
Northing: 1147554.052416USft Easting: 622478.488412USft
Elevation: 222.662545USft Description: NS
4271 Backsight: Occupy Point: 103
Backsight Point: 106 Backsight Azimuth: 240.014512 Backsight
Circle: 0.0000
4272 Note: Fixed HR at Backsight:4.82 (4.82 + 0.0 Offset),
Prism Const.:0.0mm
4273 Note: BS check 103 - 106:ZE90.1630,SD382.834,HD err= -
0.035985, VD err= -0.025019
4274 Note: BS Circle check : angular err= 0.0000
4275 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
4276 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0003
4277 Repeat Directional: Foresight Reverse
Set: 1 Angle: 104.5410
4278 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 273.1813
4279 Multiple Distances: Set: 1
Slope Distance: 303.406USft
4280 Repeat Foresight: Occupy Point: 103
Foresight Point: 479 Angle Right: 104.5410 Zenith
Angle: 273.1813 Slope Distance: 303.406USft Height of Rod: 4.97USft
Description: NS
4281 Repeat Directional: Foresight Direct
Set: 1 Angle: 284.5410
4282 Repeat Directional: Zenith Direct
Set: 1 Zenith: 86.4151
4283 Multiple Distances: Set: 1
Slope Distance: 303.408USft
4284 Repeat Foresight: Occupy Point: 103
Foresight Point: 479 Angle Right: 284.5410 Zenith
Angle: 86.4151 Slope Distance: 303.408USft Height of Rod: 4.97USft
Description: NS
4285 Note: Horizontal Angle Error: 0.0003
4286 Note: Zenith Angle Error: 0.0004
4287 Note: Slope Distance Error: 0.002
4288 Note: Horizontal Angle Error compares to the average:
0.0000
4289 Note: Zenith Angle Error compares to the average:
0.0000

4290 Note: Slope Distance Error compares to the average: 0.0
4291 Side Shot: Occupy Point: 103
Foresight Point: 479 Angle Right: 284.54085 Zenith
Angle: 86.4149 Slope Distance: 303.407USft Description: NS
4292 Note: Foresight Target:My Prism, HR:4.93 (4.93 + 0.0
Offset), Prism Const.:0.0mm
4293 Occupy Pt: Occupy Point: 479
Northing: 1147261.564473USft Easting: 622557.234897USft
Elevation: 240.354027USft Description: NS
4294 Note: HR:4.93 (4.93 + 0.0 Offset)
4295 Line of Sight (HI/HR): Height of Instrument: 5.21USft
Height of Rod: 4.93USft
4296 Backsight: Occupy Point: 479
Backsight Point: 103 Backsight Azimuth: 344.555362 Backsight
Circle: 0.0000
4297 Note: Fixed HR at Backsight:4.93 (4.93 + 0.0 Offset),
Prism Const.:0.0mm
4298 Note: BS check 479 - 103:ZE93.2357,SD303.412,HD err= -
0.024759, VD err= -0.018378
4299 Note: BS Circle check : angular err= 0.0000
4300 Side Shot: Occupy Point: 479
Foresight Point: 480 Angle Right: 0.0000 Zenith
Angle: 93.2357 Slope Distance: 303.414USft Description: CHK103
4301 Note: Foresight Target:My Prism, HR:8.5 (8.5 + 0.0
Offset), Prism Const.:0.0mm
4302 Note: HR:8.5 (8.5 + 0.0 Offset)
4303 Line of Sight (HI/HR): Height of Instrument: 5.21USft
Height of Rod: 8.5USft
4304 Side Shot: Occupy Point: 479
Foresight Point: 481 Angle Right: 123.5653 Zenith
Angle: 88.2524 Slope Distance: 193.572USft Description: C-1110
4305 Note: Date: 04-02-2007 Time: 09:12:32
4306 Side Shot: Occupy Point: 479
Foresight Point: 482 Angle Right: 198.5254 Zenith
Angle: 87.2651 Slope Distance: 279.02USft Description: B-1172
4307 Note: Foresight Target:My Prism, HR:4.93 (4.93 + 0.0
Offset), Prism Const.:0.0mm
4308 Note: HR:4.93 (4.93 + 0.0 Offset)
4309 Line of Sight (HI/HR): Height of Instrument: 5.21USft
Height of Rod: 4.93USft
4310 Side Shot: Occupy Point: 479
Foresight Point: 483 Angle Right: 0.0004 Zenith
Angle: 93.2358 Slope Distance: 303.416USft Description: CHK103
4311 Occupy Pt: Occupy Point: 478
Northing: 1147477.434292USft Easting: 622847.655514USft
Elevation: 215.662378USft Description: NS
4312 Note: HR:4.93 (4.93 + 0.0 Offset)
4313 Line of Sight (HI/HR): Height of Instrument: 5.27USft
Height of Rod: 4.93USft
4314 Backsight: Occupy Point: 478
Backsight Point: 103 Backsight Azimuth: 281.432962 Backsight
Circle: 0.0000
4315 Note: Fixed HR at Backsight:4.93 (4.93 + 0.0 Offset),
Prism Const.:0.0mm
4316 Note: BS check 478 - 103:ZE88.5914,SD377.042,HD err= -
0.050967, VD err= 0.004196
4317 Note: BS Circle check : angular err= 0.0000
4318 Side Shot: Occupy Point: 478
Foresight Point: 484 Angle Right: 0.0000 Zenith
Angle: 88.5914 Slope Distance: 377.042USft Description: CHK103
4319 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
4320 Note: HR:4.97 (4.97 + 0.0 Offset)
4321 Line of Sight (HI/HR): Height of Instrument: 5.27USft
Height of Rod: 4.97USft
4322 Side Shot: Occupy Point: 478
Foresight Point: 485 Angle Right: 195.0450 Zenith

Angle: 86.2808 Slope Distance: 119.052USft Description: B-1170
4323 Note: Data Collector Serial Number: FS29A13023
4324 Note: Activating Total Station: Nikon TOP GUN [Nikon], COM1, 4800 baud, no parity
4325 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
4326 Note: Foresight Target:My Prism, HR:5.05 (5.05 + 0.0 Offset), Prism Const.:0.0mm
4327 Occupy Pt: Occupy Point: 9147
Northing: 1143427.873958USft Easting: 619312.835435USft
Elevation: 233.516223USft Description: NS
4328 Note: HR:5.05 (5.05 + 0.0 Offset)
4329 Line of Sight (HI/HR): Height of Instrument: 5.28USft
Height of Rod: 5.05USft
4330 Backsight: Occupy Point: 9147
Backsight Point: 9157 Backsight Azimuth: 137.482963 Backsight Circle: 0.0000
4331 Note: Fixed HR at Backsight:5.05 (5.05 + 0.0 Offset), Prism Const.:0.0mm
4332 Note: BS check 9147 - 9157:ZE88.0724,SD409.924,HD err= 0.018422, VD err= 0.016215
4333 Note: BS Circle check : angular err= 0.0000
4334 Side Shot: Occupy Point: 9147
Foresight Point: 486 Angle Right: 0.0000 Zenith Angle: 88.0722 Slope Distance: 409.924USft Description: CHK9157
4335 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
4336 Note: HR:4.97 (4.97 + 0.0 Offset)
4337 Line of Sight (HI/HR): Height of Instrument: 5.28USft
Height of Rod: 4.97USft
4338 Side Shot: Occupy Point: 9147
Foresight Point: 487 Angle Right: 41.0541 Zenith Angle: 92.4131 Slope Distance: 261.948USft Description: B-6015
4339 Note: Foresight Target:My Prism, HR:13.7 (13.7 + 0.0 Offset), Prism Const.:0.0mm
4340 Note: HR:13.7 (13.7 + 0.0 Offset)
4341 Line of Sight (HI/HR): Height of Instrument: 5.28USft
Height of Rod: 13.7USft
4342 Side Shot: Occupy Point: 9147
Foresight Point: 488 Angle Right: 151.2350 Zenith Angle: 94.1026 Slope Distance: 127.444USft Description: B-1138
4343 Note: Foresight Target:My Prism, HR:5.05 (5.05 + 0.0 Offset), Prism Const.:0.0mm
4344 Note: HR:5.05 (5.05 + 0.0 Offset)
4345 Line of Sight (HI/HR): Height of Instrument: 5.28USft
Height of Rod: 5.05USft
4346 Side Shot: Occupy Point: 9147
Foresight Point: 489 Angle Right: 0.0001 Zenith Angle: 88.0717 Slope Distance: 409.926USft Description: CHK9157
4347 Note: Date: 04-02-2007 Time: 10:03:48
4348 Note: Date: 04-02-2007 Time: 10:56:49
4349 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
4350 Occupy Pt: Occupy Point: 9176
Northing: 1142939.602904USft Easting: 618625.537442USft
Elevation: 213.446007USft Description: NS
4351 Note: HR:4.97 (4.97 + 0.0 Offset)
4352 Line of Sight (HI/HR): Height of Instrument: 5.16USft
Height of Rod: 4.97USft
4353 Backsight: Occupy Point: 9176
Backsight Point: 9179 Backsight Azimuth: 248.092713 Backsight Circle: 0.0000
4354 Note: Backsight HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
4355 Note: BS check 9176 - 9179:ZE90.5919,SD256.358,HD err= 0.003, VD err= -0.020052
4356 Note: BS Circle check : angular err= 0.0000

4357 Side Shot: Occupy Point: 9176
Foresight Point: 490 Angle Right: 0.0000 Zenith
Angle: 90.5919 Slope Distance: 256.354USft Description: CHK9179
4358 Side Shot: Occupy Point: 9176
Foresight Point: 491 Angle Right: 15.1014 Zenith
Angle: 91.5819 Slope Distance: 260.906USft Description: B-6018
4359 Side Shot: Occupy Point: 9176
Foresight Point: 492 Angle Right: 55.2611 Zenith
Angle: 90.3200 Slope Distance: 413.084USft Description: B-6014
4360 Note: Foresight Target:My Prism, HR:5.14 (5.14 + 0.0
Offset), Prism Const.:0.0mm
4361 Occupy Pt: Occupy Point: 9183
Northing: 1142975.592517USft Easting: 617472.929711USft
Elevation: 244.454298USft Description: NS
4362 Note: HR:5.14 (5.14 + 0.0 Offset)
4363 Line of Sight (HI/HR): Height of Instrument: 5.24USft
Height of Rod: 5.14USft
4364 Backsight: Occupy Point: 9183
Backsight Point: 9181 Backsight Azimuth: 98.331113 Backsight
Circle: 0.0000
4365 Note: Fixed HR at Backsight:5.14 (5.14 + 0.0 Offset),
Prism Const.:0.0mm
4366 Note: BS check 9183 - 9181:ZE91.0050,SD499.818,HD err=
0.014929, VD err= -0.010851
4367 Note: BS Circle check : angular err= 0.0000
4368 Side Shot: Occupy Point: 9183
Foresight Point: 493 Angle Right: 0.0000 Zenith
Angle: 91.0048 Slope Distance: 499.822USft Description: CHK9181
4369 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
4370 Note: HR:4.97 (4.97 + 0.0 Offset)
4371 Line of Sight (HI/HR): Height of Instrument: 5.24USft
Height of Rod: 4.97USft
4372 Side Shot: Occupy Point: 9183
Foresight Point: 494 Angle Right: 210.3704 Zenith
Angle: 88.4809 Slope Distance: 307.13USft Description: B-6013
4373 Note: Foresight Target:My Prism, HR:5.14 (5.14 + 0.0
Offset), Prism Const.:0.0mm
4374 Note: HR:5.14 (5.14 + 0.0 Offset)
4375 Line of Sight (HI/HR): Height of Instrument: 5.24USft
Height of Rod: 5.14USft
4376 Side Shot: Occupy Point: 9183
Foresight Point: 495 Angle Right: 359.5959 Zenith
Angle: 91.0047 Slope Distance: 499.822USft Description: CHK9181
4377 Note: Foresight Target:My Prism, HR:5.05 (5.05 + 0.0
Offset), Prism Const.:0.0mm
4378 Occupy Pt: Occupy Point: 200
Northing: 1145585.773873USft Easting: 625441.148416USft
Elevation: 110.204879USft Description: NS
4379 Note: HR:5.05 (5.05 + 0.0 Offset)
4380 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 5.05USft
4381 Backsight: Occupy Point: 200
Backsight Point: 197 Backsight Azimuth: 266.562612 Backsight
Circle: 0.0000
4382 Note: Fixed HR at Backsight:5.05 (5.05 + 0.0 Offset),
Prism Const.:0.0mm
4383 Note: BS check 200 - 197:ZE87.3940,SD727.326,HD err=
0.032914, VD err= -0.021544
4384 Note: BS Circle check : angular err= 0.0000
4385 Note: BS check 200 - 197:ZE87.3941,SD727.316,HD err=
0.023066, VD err= -0.025475
4386 Note: BS Circle check : angular err= 0.0000
4387 Occupy Pt: Occupy Point: 200
Northing: 1145585.773873USft Easting: 625441.148416USft
Elevation: 110.204879USft Description: NS
4388 Note: HR:5.05 (5.05 + 0.0 Offset)

4389 Line of Sight (HI/HR): Height of Instrument: 5.29USft
Height of Rod: 5.05USft
4390 Backsight: Occupy Point: 200
Backsight Point: 197 Backsight Azimuth: 266.562612 Backsight
Circle: 0.0000
4391 Note: Fixed HR at Backsight:5.05 (5.05 + 0.0 Offset),
Prism Const.:0.0mm
4392 Note: BS check 200 - 197:ZE87.3941,SD727.314,HD err=
0.021068, VD err= -0.035557
4393 Note: BS Circle check : angular err= 0.0000
4394 Occupy Pt: Occupy Point: 200
Northing: 1145585.773873USft Easting: 625441.148416USft
Elevation: 110.204879USft Description: NS
4395 Note: HR:5.05 (5.05 + 0.0 Offset)
4396 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 5.05USft
4397 Backsight: Occupy Point: 200
Backsight Point: 197 Backsight Azimuth: 266.562612 Backsight
Circle: 0.0000
4398 Note: Fixed HR at Backsight:5.05 (5.05 + 0.0 Offset),
Prism Const.:0.0mm
4399 Note: BS check 200 - 197:ZE87.3941,SD727.316,HD err=
0.023066, VD err= -0.025475
4400 Note: BS Circle check : angular err= 0.0000
4401 Side Shot: Occupy Point: 200
Foresight Point: 496 Angle Right: 0.0000 Zenith
Angle: 87.3941 Slope Distance: 727.32USft Description: CHK197
4402 Note: Date: 04-02-2007 Time: 12:30:21
4403 Note: Foresight Target:My Prism, HR:5.25 (5.25 + 0.0
Offset), Prism Const.:0.0mm
4404 Note: HR:5.25 (5.25 + 0.0 Offset)
4405 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 5.25USft
4406 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0001
4407 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0006
4408 Repeat Directional: Foresight Reverse
Set: 1 Angle: 181.5914
4409 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 272.2122
4410 Multiple Distances: Set: 1
Slope Distance: 753.072USft
4411 Repeat Foresight: Occupy Point: 200
Foresight Point: 497 Angle Right: 181.5914 Zenith
Angle: 272.2122 Slope Distance: 753.072USft Height of Rod: 5.25USft
Description: NS
4412 Repeat Directional: Foresight Direct
Set: 1 Angle: 1.5908
4413 Repeat Directional: Zenith Direct
Set: 1 Zenith: 87.3836
4414 Multiple Distances: Set: 1
Slope Distance: 753.086USft
4415 Repeat Foresight: Occupy Point: 200
Foresight Point: 497 Angle Right: 1.5908 Zenith
Angle: 87.3836 Slope Distance: 753.086USft Height of Rod: 5.25USft
Description: NS
4416 Note: Horizontal Angle Error: 0.0001
4417 Note: Zenith Angle Error: 0.0002
4418 Note: Slope Distance Error: 0.014
4419 Note: Horizontal Angle Error compares to the average:
0.0000
4420 Note: Zenith Angle Error compares to the average:
0.0000
4421 Note: Slope Distance Error compares to the average: 0.0
4422 Side Shot: Occupy Point: 200
Foresight Point: 497 Angle Right: 1.59075 Zenith

Angle: 87.3837 Slope Distance: 753.079USft Description: NS
4423 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
4424 Note: HR:4.97 (4.97 + 0.0 Offset)
4425 Line of Sight (HI/HR): Height of Instrument: 5.3USft Height of Rod: 4.97USft
4426 Store Point: Point Name: 498 Northing: 1145494.538601USft Easting: 626284.06167USft Elevation: 94.609212USft Description: CHK203
4427 Cut Sheet: Elevation: 94.609212USft Design Grade: 94.586207
4428 Design Point/Location: Point Name: 203 Northing: 1145494.512061USft Easting: 626284.058583USft Elevation: 94.586207USft Description: NS
4429 Stakeout Deltas: Delta Northing: -0.02654USft Delta Easting: -0.003087USft Delta Elevation: -0.023005USft
4430 Stakeout: Occupy Point: 200 Foresight Point: 498 Angle Right: 189.1413 Zenith Angle: 91.0434 Slope Distance: 847.986USft Description: CHK203
4431 Note: Foresight Target:My Prism, HR:5.45 (5.45 + 0.0 Offset), Prism Const.:0.0mm
4432 Occupy Pt: Occupy Point: 497 Northing: 1145571.670363USft Easting: 624688.838396USft Elevation: 141.217836USft Description: NS
4433 Note: HR:5.45 (5.45 + 0.0 Offset)
4434 Line of Sight (HI/HR): Height of Instrument: 5.22USft Height of Rod: 5.45USft
4435 Backsight: Occupy Point: 497 Backsight Point: 200 Backsight Azimuth: 88.553362 Backsight Circle: 0.0000
4436 Note: Fixed HR at Backsight:5.45 (5.45 + 0.0 Offset), Prism Const.:0.0mm
4437 Note: BS check 497 - 200:ZE92.2102,SD753.09,HD err= 0.014139, VD err= -0.103844
4438 Note: BS Circle check : angular err= 0.0000
4439 Occupy Pt: Occupy Point: 497 Northing: 1145571.670363USft Easting: 624688.838396USft Elevation: 141.217836USft Description: NS
4440 Note: HR:5.45 (5.45 + 0.0 Offset)
4441 Line of Sight (HI/HR): Height of Instrument: 5.27USft Height of Rod: 5.45USft
4442 Backsight: Occupy Point: 497 Backsight Point: 200 Backsight Azimuth: 88.553362 Backsight Circle: 0.0000
4443 Note: Fixed HR at Backsight:5.45 (5.45 + 0.0 Offset), Prism Const.:0.0mm
4444 Note: BS check 497 - 200:ZE92.2059,SD753.088,HD err= 0.01259, VD err= -0.042818
4445 Note: BS Circle check : angular err= 0.0000
4446 Occupy Pt: Occupy Point: 497 Northing: 1145571.670363USft Easting: 624688.838396USft Elevation: 141.217836USft Description: NS
4447 Backsight: Occupy Point: 497 Backsight Point: 200 Backsight Azimuth: 88.553362 Backsight Circle: 0.0000
4448 Note: Fixed HR at Backsight:5.45 (5.45 + 0.0 Offset), Prism Const.:0.0mm
4449 Note: BS check 497 - 200:ZE92.2102,SD753.096,HD err= 0.020134, VD err= -0.05409
4450 Note: BS Circle check : angular err= 0.0000
4451 Note: BS check 497 - 200:ZE92.2102,SD753.092,HD err= 0.016138, VD err= -0.053926
4452 Note: BS Circle check : angular err= 0.0000
4453 Note: BS check 497 - 200:ZE92.2101,SD753.092,HD err= 0.016287, VD err= -0.050278
4454 Note: BS Circle check : angular err= 0.0000
4455 Note: Date: 04-02-2007 Time: 12:47:55

4456 Note: Foresight Target:My Prism, HR:5.43 (5.43 + 0.0 Offset), Prism Const.:0.0mm
4457 Occupy Pt: Occupy Point: 497
Northing: 1145571.670363USft Easting: 624688.838396USft
Elevation: 141.217836USft Description: NS
4458 Note: HR:5.43 (5.43 + 0.0 Offset)
4459 Line of Sight (HI/HR): Height of Instrument: 5.27USft
Height of Rod: 5.43USft
4460 Backsight: Occupy Point: 497
Backsight Point: 200 Backsight Azimuth: 88.553362 Backsight Circle: 0.0000
4461 Note: Fixed HR at Backsight:5.43 (5.43 + 0.0 Offset), Prism Const.:0.0mm
4462 Note: BS check 497 - 200:ZE92.2050,SD753.098,HD err= 0.023928, VD err= 0.009604
4463 Note: BS Circle check : angular err= 0.0000
4464 Note: BS check 497 - 200:ZE92.2049,SD753.102,HD err= 0.028074, VD err= 0.013089
4465 Note: BS Circle check : angular err= 0.0000
4466 Note: BS check 497 - 200:ZE92.2051,SD753.094,HD err= 0.019782, VD err= 0.00612
4467 Note: BS Circle check : angular err= 0.0000
4468 Side Shot: Occupy Point: 497
Foresight Point: 499 Angle Right: 0.0000 Zenith Angle: 92.2050 Slope Distance: 753.1USft Description: CHK200
4469 Note: Foresight Target:My Prism, HR:4.83 (4.83 + 0.0 Offset), Prism Const.:0.0mm
4470 Note: HR:4.83 (4.83 + 0.0 Offset)
4471 Line of Sight (HI/HR): Height of Instrument: 5.27USft
Height of Rod: 4.83USft
4472 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
4473 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0008
4474 Repeat Directional: Foresight Reverse
Set: 1 Angle: 319.0512
4475 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 275.1937
4476 Multiple Distances: Set: 1
Slope Distance: 645.888USft
4477 Repeat Foresight: Occupy Point: 497
Foresight Point: 500 Angle Right: 319.0512 Zenith Angle: 275.1937 Slope Distance: 645.888USft Height of Rod: 4.83USft
Description: NS
4478 Repeat Directional: Foresight Direct
Set: 1 Angle: 139.0501
4479 Repeat Directional: Zenith Direct
Set: 1 Zenith: 84.4013
4480 Multiple Distances: Set: 1
Slope Distance: 645.904USft
4481 Repeat Foresight: Occupy Point: 497
Foresight Point: 500 Angle Right: 139.0501 Zenith Angle: 84.4013 Slope Distance: 645.904USft Height of Rod: 4.83USft
Description: NS
4482 Note: Horizontal Angle Error: 0.0003
4483 Note: Zenith Angle Error: 0.0010
4484 Note: Slope Distance Error: 0.016
4485 Note: Horizontal Angle Error compares to the average: 0.0000
4486 Note: Zenith Angle Error compares to the average: 0.0000
4487 Note: Slope Distance Error compares to the average: 0.0
4488 Side Shot: Occupy Point: 497
Foresight Point: 500 Angle Right: 139.05025 Zenith Angle: 84.4018 Slope Distance: 645.896USft Description: NS
4489 Note: Foresight Target:My Prism, HR:5.19 (5.19 + 0.0 Offset), Prism Const.:0.0mm

4490 Occupy Pt: Occupy Point: 500
Northing: 1145141.432808USft Easting: 624210.842883USft
Elevation: 201.637659USft Description: NS
4491 Note: HR:5.19 (5.19 + 0.0 Offset)
4492 Line of Sight (HI/HR): Height of Instrument: 5.14USft
Height of Rod: 5.19USft
4493 Backsight: Occupy Point: 500
Backsight Point: 497 Backsight Azimuth: 48.003612 Backsight
Circle: 0.0000
4494 Note: Fixed HR at Backsight:5.19 (5.19 + 0.0 Offset),
Prism Const.:0.0mm
4495 Note: BS check 500 - 497:ZE95.2144,SD645.954,HD err=
0.022157, VD err= 0.004211
4496 Note: BS Circle check : angular err= 0.0000
4497 Side Shot: Occupy Point: 500
Foresight Point: 501 Angle Right: 0.0000 Zenith
Angle: 95.2143 Slope Distance: 645.948USft Description: CHK497
4498 Note: Foresight Target:My Prism, HR:5.17 (5.17 + 0.0
Offset), Prism Const.:0.0mm
4499 Note: HR:5.17 (5.17 + 0.0 Offset)
4500 Line of Sight (HI/HR): Height of Instrument: 5.14USft
Height of Rod: 5.17USft
4501 Store Point: Point Name: 502
Northing: 1144987.626431USft Easting: 624027.79943USft
Elevation: 218.352852USft Description: CHK33
4502 Cut Sheet: Elevation: 218.352852USft
Design Grade: 219.2487
4503 Design Point/Location: Point Name: 33
Northing: 1144987.6873USft Easting: 624027.8281USft
Elevation: 219.2487USft Description: PT19
4504 Stakeout Deltas: Delta Northing: 0.060869USft
Delta Easting: 0.02867USft Delta Elevation: 0.895848USft
4505 Stakeout: Occupy Point: 500
Foresight Point: 502 Angle Right: 181.5702 Zenith
Angle: 85.5937 Slope Distance: 239.67USft Description: CHK33
4506 Note: Data Collector Serial Number: FS29A13023
4507 Note: Activating Total Station: Nikon TOP GUN [Nikon],
COM1, 4800 baud, no parity
4508 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
4509 Note: Date: 04-02-2007 Time: 13:28:44
4510 Note: Data Collector Serial Number: FS29A13023
4511 Note: Activating Total Station: Nikon TOP GUN [Nikon],
COM1, 4800 baud, no parity
4512 Note: Foresight Target:My Prism, HR:5.09 (5.09 + 0.0
Offset), Prism Const.:0.0mm
4513 Note: Date: 04-03-2007 Time: 13:17:38
4514 Note: Data Collector Serial Number: FS29A13023
4515 Note: Activating Total Station: Nikon TOP GUN [Nikon],
COM1, 4800 baud, no parity
4516 Note: Date: 04-16-2007 Time: 09:08:46
4517 Note: Foresight Target:My Prism, HR:0.0 (0.0 + 0.0
Offset), Prism Const.:0.0mm
4518 Note: Foresight Target:My Prism, HR:5.26 (5.26 + 0.0
Offset), Prism Const.:0.0mm
4519 Occupy Pt: Occupy Point: 304
Northing: 1141699.058473USft Easting: 620338.090901USft
Elevation: 219.962187USft Description: NS
4520 Note: HR:5.26 (5.26 + 0.0 Offset)
4521 Line of Sight (HI/HR): Height of Instrument: 5.43USft
Height of Rod: 5.26USft
4522 Backsight: Occupy Point: 304
Backsight Point: 234 Backsight Azimuth: 80.291421 Backsight
Circle: 0.0000
4523 Note: Fixed HR at Backsight:5.26 (5.26 + 0.0 Offset),
Prism Const.:0.0mm
4524 Note: BS check 304 - 234:ZE89.4333,SD351.374,HD err=

0.010295, VD err= 0.009575
4525 Note: BS Circle check : angular err= 0.0000
4526 Side Shot: Occupy Point: 304
Foresight Point: 503 Angle Right: 0.0000 Zenith
Angle: 89.4333 Slope Distance: 351.372USft Description: CHK234
4527 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
4528 Note: HR:4.97 (4.97 + 0.0 Offset)
4529 Line of Sight (HI/HR): Height of Instrument: 5.43USft
Height of Rod: 4.97USft
4530 Side Shot: Occupy Point: 304
Foresight Point: 504 Angle Right: 319.1427 Zenith
Angle: 90.0609 Slope Distance: 456.18USft Description: ER-4003S
4531 Side Shot: Occupy Point: 304
Foresight Point: 505 Angle Right: 323.0020 Zenith
Angle: 89.5422 Slope Distance: 157.144USft Description: ER-4003CL
4532 Side Shot: Occupy Point: 304
Foresight Point: 506 Angle Right: 276.5119 Zenith
Angle: 89.4900 Slope Distance: 97.474USft Description: ER-4002
4533 Note: Date: 04-16-2007 Time: 12:31:59
4534 Side Shot: Occupy Point: 304
Foresight Point: 507 Angle Right: 130.4502 Zenith
Angle: 90.5855 Slope Distance: 144.214USft Description: ER-4003
4535 Side Shot: Occupy Point: 304
Foresight Point: 508 Angle Right: 98.5603 Zenith
Angle: 90.0543 Slope Distance: 352.312USft Description: ER-4002CL
4536 Store Point: Point Name: 504
Northing: 1142049.899573USft Easting: 620629.655729USft
Elevation: 219.606099USft Description: ER-4003
4537 Side Shot: Occupy Point: 304
Foresight Point: 509 Angle Right: 98.3958 Zenith
Angle: 90.0225 Slope Distance: 801.974USft Description: ER-4002
4538 Side Shot: Occupy Point: 304
Foresight Point: 510 Angle Right: 165.1655 Zenith
Angle: 90.4005 Slope Distance: 373.28USft Description: B-6024
4539 Note: Foresight Target:My Prism, HR:5.26 (5.26 + 0.0
Offset), Prism Const.:0.0mm
4540 Note: HR:5.26 (5.26 + 0.0 Offset)
4541 Line of Sight (HI/HR): Height of Instrument: 5.43USft
Height of Rod: 5.26USft
4542 Side Shot: Occupy Point: 304
Foresight Point: 511 Angle Right: 359.5958 Zenith
Angle: 89.4333 Slope Distance: 351.368USft Description: CHK234
4543 Occupy Pt: Occupy Point: 303
Northing: 1141606.172081USft Easting: 620784.531217USft
Elevation: 222.712308USft Description: NS
4544 Note: HR:5.26 (5.26 + 0.0 Offset)
4545 Line of Sight (HI/HR): Height of Instrument: 5.32USft
Height of Rod: 5.26USft
4546 Backsight: Occupy Point: 303
Backsight Point: 234 Backsight Azimuth: 326.300221 Backsight
Circle: 0.0000
4547 Note: Fixed HR at Backsight:5.26 (5.26 + 0.0 Offset),
Prism Const.:0.0mm
4548 Note: BS Circle check : angular err= 0.0000
4549 Note: BS check 303 - 234:ZE90.1808,SD181.022,HD err= -
0.004483, VD err= 0.013494
4550 Note: BS Circle check : angular err= 0.0000
4551 Note: BS check 303 - 234:ZE90.1812,SD181.022,HD err= -
0.004502, VD err= 0.009983
4552 Note: BS Circle check : angular err= 0.0000
4553 Side Shot: Occupy Point: 303
Foresight Point: 512 Angle Right: 0.0000 Zenith
Angle: 90.1812 Slope Distance: 181.024USft Description: CHK234
4554 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
4555 Note: HR:4.97 (4.97 + 0.0 Offset)

4556 Line of Sight (HI/HR): Height of Instrument: 5.32USft
Height of Rod: 4.97USft
4557 Side Shot: Occupy Point: 303
Foresight Point: 513 Angle Right: 211.4829 Zenith
Angle: 90.1918 Slope Distance: 473.148USft Description: ER-4001
4558 Side Shot: Occupy Point: 303
Foresight Point: 514 Angle Right: 183.3507 Zenith
Angle: 89.0622 Slope Distance: 26.372USft Description: ER-4001
4559 Note: Date: 04-16-2007 Time: 12:53:12
4560 Occupy Pt: Occupy Point: 303
Northing: 1141606.172081USft Easting: 620784.531217USft
Elevation: 222.712308USft Description: NS
4561 Backsight: Occupy Point: 303
Backsight Point: 234 Backsight Azimuth: 326.300221 Backsight
Circle: 0.0000
4562 Note: Fixed HR at Backsight:5.26 (5.26 + 0.0 Offset),
Prism Const.:0.0mm
4563 Note: BS check 303 - 234:ZE90.1813,SD181.022,HD err= -
0.004506, VD err= 0.009106
4564 Note: BS Circle check : angular err= 0.0000
4565 Side Shot: Occupy Point: 303
Foresight Point: 515 Angle Right: 212.3711 Zenith
Angle: 90.2847 Slope Distance: 922.996USft Description: ER-4001
4566 Note: Date: 04-16-2007 Time: 13:24:50
4567 Note: Foresight Target:My Prism, HR:5.26 (5.26 + 0.0
Offset), Prism Const.:0.0mm
4568 Note: HR:5.26 (5.26 + 0.0 Offset)
4569 Line of Sight (HI/HR): Height of Instrument: 5.32USft
Height of Rod: 5.26USft
4570 Side Shot: Occupy Point: 303
Foresight Point: 516 Angle Right: 359.5958 Zenith
Angle: 90.1812 Slope Distance: 181.022USft Description: CHK234
4571 Note: Foresight Target:My Prism, HR:5.3 (5.3 + 0.0
Offset), Prism Const.:0.0mm
4572 Occupy Pt: Occupy Point: 139
Northing: 1141590.457USft Easting: 621869.605USft
Elevation: 222.95USft Description: NS
4573 Note: HR:5.3 (5.3 + 0.0 Offset)
4574 Line of Sight (HI/HR): Height of Instrument: 5.33USft
Height of Rod: 5.3USft
4575 Backsight: Occupy Point: 139
Backsight Point: 9 Backsight Azimuth: 11.401267 Backsight
Circle: 0.0000
4576 Note: Fixed HR at Backsight:5.3 (5.3 + 0.0 Offset),
Prism Const.:0.0mm
4577 Note: BS check 139 - 9:ZE90.3044,SD452.874,HD err= -
0.030881, VD err= -0.001623
4578 Note: BS Circle check : angular err= 0.0000
4579 Side Shot: Occupy Point: 139
Foresight Point: 517 Angle Right: 0.0001 Zenith
Angle: 90.3045 Slope Distance: 452.878USft Description: CHK9
4580 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
4581 Note: HR:4.97 (4.97 + 0.0 Offset)
4582 Line of Sight (HI/HR): Height of Instrument: 5.33USft
Height of Rod: 4.97USft
4583 Side Shot: Occupy Point: 139
Foresight Point: 518 Angle Right: 189.3229 Zenith
Angle: 90.2437 Slope Distance: 397.05USft Description: ER-3002
4584 Off Center Shot: Angle Right: 145.4005
Zenith Angle: 90.2719 Slope Distance: 414.414USft
4585 Off Center Shot: Left/Right Offset: 4.0USft
Description: Left / Right Offset
4586 Side Shot: Occupy Point: 139
Foresight Point: 519 Angle Right: 146.131591 Zenith
Angle: 90.271892 Slope Distance: 414.433304USft Description: ER-3002
4587 Note: Date: 04-16-2007 Time: 14:18:39

4588 Side Shot: Occupy Point: 139
Foresight Point: 520 Angle Right: 149.3313 Zenith
Angle: 89.5811 Slope Distance: 196.524USft Description: ER-3001
4589 Note: Foresight Target:My Prism, HR:8.5 (8.5 + 0.0
Offset), Prism Const.:0.0mm
4590 Note: HR:8.5 (8.5 + 0.0 Offset)
4591 Line of Sight (HI/HR): Height of Instrument: 5.33USft
Height of Rod: 8.5USft
4592 Side Shot: Occupy Point: 139
Foresight Point: 521 Angle Right: 160.3604 Zenith
Angle: 90.0221 Slope Distance: 490.406USft Description: ER-3001
4593 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
4594 Note: HR:4.97 (4.97 + 0.0 Offset)
4595 Line of Sight (HI/HR): Height of Instrument: 5.33USft
Height of Rod: 4.97USft
4596 Side Shot: Occupy Point: 139
Foresight Point: 522 Angle Right: 16.0756 Zenith
Angle: 90.4950 Slope Distance: 129.366USft Description: ER-3001
4597 Note: Foresight Target:My Prism, HR:5.3 (5.3 + 0.0
Offset), Prism Const.:0.0mm
4598 Note: HR:5.3 (5.3 + 0.0 Offset)
4599 Line of Sight (HI/HR): Height of Instrument: 5.33USft
Height of Rod: 5.3USft
4600 Side Shot: Occupy Point: 139
Foresight Point: 523 Angle Right: 0.0002 Zenith
Angle: 90.3029 Slope Distance: 452.832USft Description: CHK9
4601 Occupy Pt: Occupy Point: 318
Northing: 1141664.533836USft Easting: 622103.725266USft
Elevation: 223.090582USft Description: NS
4602 Note: HR:5.3 (5.3 + 0.0 Offset)
4603 Line of Sight (HI/HR): Height of Instrument: 5.22USft
Height of Rod: 5.3USft
4604 Backsight: Occupy Point: 318
Backsight Point: 9 Backsight Azimuth: 338.542271 Backsight
Circle: 0.0000
4605 Note: Fixed HR at Backsight:5.3 (5.3 + 0.0 Offset),
Prism Const.:0.0mm
4606 Note: BS check 318 - 9:ZE90.3515,SD395.848,HD err= -
0.154233, VD err= 0.018704
4607 Note: BS Circle check : angular err= 0.0000
4608 Note: Date: 04-16-2007 Time: 14:41:46
4609 Note: BS check 318 - 9:ZE90.3511,SD395.846,HD err= -
0.156154, VD err= 0.0264
4610 Note: BS Circle check : angular err= 0.0000
4611 Side Shot: Occupy Point: 318
Foresight Point: 524 Angle Right: 0.0001 Zenith
Angle: 90.3510 Slope Distance: 395.836USft Description: CHK9
4612 Note: Data Collector Serial Number: FS29A13023
4613 Note: Activating Total Station: Nikon TOP GUN [Nikon],
COM1, 4800 baud, no parity
4614 Note: Foresight Target:My Prism, HR:5.09 (5.09 + 0.0
Offset), Prism Const.:0.0mm
4615 Note: Date: 04-16-2007 Time: 14:46:27
4616 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
4617 Occupy Pt: Occupy Point: 318
Northing: 1141664.533836USft Easting: 622103.725266USft
Elevation: 223.090582USft Description: NS
4618 Note: HR:4.97 (4.97 + 0.0 Offset)
4619 Line of Sight (HI/HR): Height of Instrument: 5.22USft
Height of Rod: 4.97USft
4620 Backsight: Occupy Point: 318
Backsight Point: 9 Backsight Azimuth: 338.542271 Backsight
Circle: 0.0000
4621 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset),
Prism Const.:0.0mm

4622 Note: BS check 318 - 9:ZE90.3838,SD396.002,HD err= -0.004429, VD err= -0.042587
4623 Note: BS Circle check : angular err= 0.0000
4624 Note: BS check 318 - 9:ZE90.3842,SD395.994,HD err= -0.012515, VD err= -0.050176
4625 Note: BS Circle check : angular err= 0.0000
4626 Note: BS check 318 - 9:ZE90.3831,SD396.032,HD err= 0.02572, VD err= -0.029485
4627 Note: BS Circle check : angular err= 0.0001
4628 Note: BS check 318 - 9:ZE90.3831,SD395.978,HD err= -0.028277, VD err= -0.02888
4629 Note: BS Circle check : angular err= 0.0000
4630 Deleted Point: Point Name: 524
4631 Side Shot: Occupy Point: 318
Foresight Point: 524 Angle Right: 0.0000 Zenith Angle: 90.3833 Slope Distance: 396.024USft Description: CHK9
4632 Note: Foresight Target:My Prism, HR:5.2 (5.2 + 0.0 Offset), Prism Const.:0.0mm
4633 Note: HR:5.2 (5.2 + 0.0 Offset)
4634 Line of Sight (HI/HR): Height of Instrument: 5.22USft Height of Rod: 5.2USft
4635 Side Shot: Occupy Point: 318
Foresight Point: 525 Angle Right: 175.4315 Zenith Angle: 90.1732 Slope Distance: 514.138USft Description: ER-3002
4636 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
4637 Note: HR:4.97 (4.97 + 0.0 Offset)
4638 Line of Sight (HI/HR): Height of Instrument: 5.22USft Height of Rod: 4.97USft
4639 Side Shot: Occupy Point: 318
Foresight Point: 526 Angle Right: 0.0000 Zenith Angle: 90.3839 Slope Distance: 396.036USft Description: CHK9
4640 Occupy Pt: Occupy Point: 9
Northing: 1142033.9818USft Easting: 621961.2139USft Elevation: 218.933USft Description: PKNS
4641 Note: HR:4.97 (4.97 + 0.0 Offset)
4642 Line of Sight (HI/HR): Height of Instrument: 5.31USft Height of Rod: 4.97USft
4643 Backsight: Occupy Point: 9
Backsight Point: 11 Backsight Azimuth: 354.071362 Backsight Circle: 0.0000
4644 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
4645 Note: BS check 9 - 11:ZE90.0214,SD606.304,HD err= 0.031842, VD err= -0.024886
4646 Note: BS Circle check : angular err= 0.0000
4647 Note: BS check 9 - 11:ZE90.0210,SD606.322,HD err= 0.04985, VD err= -0.013139
4648 Note: BS Circle check : angular err= 0.0001
4649 Note: BS check 9 - 11:ZE90.0209,SD606.306,HD err= 0.033852, VD err= -0.01019
4650 Note: BS Circle check : angular err= 0.0000
4651 Side Shot: Occupy Point: 9
Foresight Point: 527 Angle Right: 0.0000 Zenith Angle: 90.0210 Slope Distance: 606.302USft Description: CHK11
4652 Side Shot: Occupy Point: 9
Foresight Point: 528 Angle Right: 292.5205 Zenith Angle: 90.3435 Slope Distance: 92.116USft Description: ER-4004
4653 Side Shot: Occupy Point: 9
Foresight Point: 529 Angle Right: 278.4146 Zenith Angle: 90.0511 Slope Distance: 538.724USft Description: ER-4004
4654 Side Shot: Occupy Point: 9
Foresight Point: 530 Angle Right: 277.1530 Zenith Angle: 90.0013 Slope Distance: 987.996USft Description: ER-4004
4655 Note: Date: 04-16-2007 Time: 15:07:48
4656 Side Shot: Occupy Point: 9
Foresight Point: 531 Angle Right: 359.5958 Zenith

Angle: 90.0212 Slope Distance: 606.31USft Description: CHK11
4657 Occupy Pt: Occupy Point: 146
Northing: 1143007.533USft Easting: 621001.779USft
Elevation: 221.616USft Description: NS
4658 Note: HR:4.97 (4.97 + 0.0 Offset)
4659 Line of Sight (HI/HR): Height of Instrument: 5.16USft
Height of Rod: 4.97USft
4660 Backsight: Occupy Point: 146
Backsight Point: 127 Backsight Azimuth: 163.310748 Backsight
Circle: 0.0000
4661 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset),
Prism Const.:0.0mm
4662 Note: BS check 146 - 127:ZE90.2444,SD437.632,HD err= -
0.001063, VD err= -0.037575
4663 Note: BS Circle check : angular err= 0.0000
4664 Note: BS check 146 - 127:ZE90.2443,SD437.65,HD err=
0.016951, VD err= -0.035583
4665 Note: BS Circle check : angular err= 0.0000
4666 Occupy Pt: Occupy Point: 146
Northing: 1143007.533USft Easting: 621001.779USft
Elevation: 221.616USft Description: NS
4667 Note: HR:4.97 (4.97 + 0.0 Offset)
4668 Line of Sight (HI/HR): Height of Instrument: 5.17USft
Height of Rod: 4.97USft
4669 Backsight: Occupy Point: 146
Backsight Point: 127 Backsight Azimuth: 163.310748 Backsight
Circle: 0.0000
4670 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset),
Prism Const.:0.0mm
4671 Note: BS check 146 - 127:ZE90.2443,SD437.666,HD err=
0.032951, VD err= -0.025698
4672 Note: BS Circle check : angular err= 0.0000
4673 Note: BS check 146 - 127:ZE90.2443,SD437.678,HD err=
0.044951, VD err= -0.025784
4674 Note: BS Circle check : angular err= 0.0000
4675 Side Shot: Occupy Point: 146
Foresight Point: 532 Angle Right: 0.0000 Zenith
Angle: 90.2444 Slope Distance: 437.668USft Description: CHK127
4676 Side Shot: Occupy Point: 146
Foresight Point: 533 Angle Right: 293.2358 Zenith
Angle: 89.5050 Slope Distance: 280.608USft Description: B-4020ALT
4677 Side Shot: Occupy Point: 146
Foresight Point: 534 Angle Right: 0.0003 Zenith
Angle: 90.2448 Slope Distance: 437.662USft Description: CHK127
4678 Note: Date: 04-16-2007 Time: 15:50:50
4679 Occupy Pt: Occupy Point: 11
Northing: 1142637.0645USft Easting: 621899.1089USft
Elevation: 218.904USft Description: #4RS
4680 Note: HR:4.97 (4.97 + 0.0 Offset)
4681 Line of Sight (HI/HR): Height of Instrument: 5.36USft
Height of Rod: 4.97USft
4682 Backsight: Occupy Point: 11
Backsight Point: 14 Backsight Azimuth: 8.551312 Backsight
Circle: 0.0000
4683 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset),
Prism Const.:0.0mm
4684 Note: BS check 11 - 14:ZE89.4241,SD632.306,HD err=
0.008411, VD err= -0.033953
4685 Note: BS Circle check : angular err= 0.0000
4686 Note: BS check 11 - 14:ZE89.4233,SD632.324,HD err=
0.026286, VD err= -0.009338
4687 Note: BS Circle check : angular err= 0.0000
4688 Side Shot: Occupy Point: 11
Foresight Point: 535 Angle Right: 0.0001 Zenith
Angle: 89.4233 Slope Distance: 632.324USft Description: CHK14
4689 Side Shot: Occupy Point: 11
Foresight Point: 536 Angle Right: 198.2908 Zenith

Angle: 90.3629 Slope Distance: 44.12USft Description: B-3002ALT
4690 Store Point: Point Name: 537
Northing: 1142033.949357USft Easting: 621961.209847USft
Elevation: 218.92363USft Description: CHK9
4691 Cut Sheet: Elevation: 218.92363USft
Design Grade: 218.933
4692 Design Point/Location: Point Name: 9
Northing: 1142033.9818USft Easting: 621961.2139USft
Elevation: 218.933USft Description: PKNS
4693 Stakeout Deltas: Delta Northing: 0.032443USft
Delta Easting: 0.004053USft Delta Elevation: 0.00937USft
4694 Stakeout: Occupy Point: 11
Foresight Point: 537 Angle Right: 165.1203 Zenith
Angle: 90.0206 Slope Distance: 606.304USft Description: CHK9
4695 Occupy Pt: Occupy Point: 18
Northing: 1144622.923533USft Easting: 622463.319738USft
Elevation: 225.711USft Description: #4RS
4696 Note: HR:4.97 (4.97 + 0.0 Offset)
4697 Line of Sight (HI/HR): Height of Instrument: 5.18USft
Height of Rod: 4.97USft
4698 Backsight: Occupy Point: 18
Backsight Point: 21 Backsight Azimuth: 316.590311 Backsight
Circle: 0.0000
4699 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset),
Prism Const.:0.0mm
4700 Note: BS check 18 - 21:ZE89.0626,SD785.556,HD err=
0.003577, VD err= -0.022031
4701 Note: BS Circle check : angular err= 0.0000
4702 Note: BS check 18 - 21:ZE89.0626,SD785.552,HD err= -
0.000423, VD err= -0.022093
4703 Note: BS Circle check : angular err= 0.0000
4704 Side Shot: Occupy Point: 18
Foresight Point: 538 Angle Right: 0.0000 Zenith
Angle: 89.0626 Slope Distance: 785.574USft Description: CHK21
4705 Note: Foresight Target:My Prism, HR:0.5 (0.5 + 0.0
Offset), Prism Const.:0.0mm
4706 Note: Foresight Target:My Prism, HR:8.5 (8.5 + 0.0
Offset), Prism Const.:0.0mm
4707 Note: HR:8.5 (8.5 + 0.0 Offset)
4708 Line of Sight (HI/HR): Height of Instrument: 5.18USft
Height of Rod: 8.5USft
4709 Side Shot: Occupy Point: 18
Foresight Point: 539 Angle Right: 315.5541 Zenith
Angle: 89.1654 Slope Distance: 221.478USft Description: TP-B-1185
4710 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
4711 Note: HR:4.97 (4.97 + 0.0 Offset)
4712 Line of Sight (HI/HR): Height of Instrument: 5.18USft
Height of Rod: 4.97USft
4713 Store Point: Point Name: 540
Northing: 1143915.644773USft Easting: 622549.020817USft
Elevation: 227.589316USft Description: CHK16
4714 Cut Sheet: Elevation: 227.589316USft
Design Grade: 227.605
4715 Design Point/Location: Point Name: 16
Northing: 1143915.652023USft Easting: 622548.992082USft
Elevation: 227.605USft Description: #4RS
4716 Stakeout Deltas: Delta Northing: 0.00725USft
Delta Easting: -0.028735USft Delta Elevation: 0.015684USft
4717 Stakeout: Occupy Point: 18
Foresight Point: 540 Angle Right: 216.0625 Zenith
Angle: 89.5157 Slope Distance: 712.454USft Description: CHK16
4718 Note: Date: 04-16-2007 Time: 16:30:10
4719 Occupy Pt: Occupy Point: 398
Northing: 1146426.32783USft Easting: 621819.64051USft
Elevation: 248.687097USft Description: NS
4720 Note: HR:4.97 (4.97 + 0.0 Offset)

4721 Line of Sight (HI/HR): Height of Instrument: 5.06USft
Height of Rod: 4.97USft
4722 Backsight: Occupy Point: 398
Backsight Point: 397 Backsight Azimuth: 317.250921 Backsight
Circle: 0.0000
4723 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset),
Prism Const.:0.0mm
4724 Note: BS check 398 - 397:ZE90.3051,SD217.682,HD err=
0.00662, VD err= 0.001257
4725 Note: BS Circle check : angular err= 0.0001
4726 Side Shot: Occupy Point: 398
Foresight Point: 541 Angle Right: 0.0000 Zenith
Angle: 90.3050 Slope Distance: 217.682USft Description: CHK397
4727 Side Shot: Occupy Point: 398
Foresight Point: 542 Angle Right: 350.1636 Zenith
Angle: 91.1814 Slope Distance: 249.778USft Description: ER-1105
4728 Side Shot: Occupy Point: 398
Foresight Point: 543 Angle Right: 351.3624 Zenith
Angle: 91.4857 Slope Distance: 699.102USft Description: ER-1105
4729 Side Shot: Occupy Point: 398
Foresight Point: 544 Angle Right: 177.1429 Zenith
Angle: 96.1957 Slope Distance: 200.814USft Description: ER-1105
4730 Note: Foresight Target:My Prism, HR:8.5 (8.5 + 0.0
Offset), Prism Const.:0.0mm
4731 Note: HR:8.5 (8.5 + 0.0 Offset)
4732 Line of Sight (HI/HR): Height of Instrument: 5.06USft
Height of Rod: 8.5USft
4733 Side Shot: Occupy Point: 398
Foresight Point: 545 Angle Right: 75.1803 Zenith
Angle: 88.0729 Slope Distance: 333.172USft Description: ER-1106
4734 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
4735 Note: HR:4.97 (4.97 + 0.0 Offset)
4736 Line of Sight (HI/HR): Height of Instrument: 5.06USft
Height of Rod: 4.97USft
4737 Side Shot: Occupy Point: 398
Foresight Point: 546 Angle Right: 283.3832 Zenith
Angle: 94.1408 Slope Distance: 119.628USft Description: NS
4738 Note: Date: 04-16-2007 Time: 16:51:16
4739 Side Shot: Occupy Point: 398
Foresight Point: 547 Angle Right: 0.0000 Zenith
Angle: 90.3044 Slope Distance: 217.65USft Description: CHK397
4740 Note: Date: 04-16-2007 Time: 17:11:38
4741 Note: Date: 04-16-2007 Time: 17:26:42
4742 Note: Foresight Target:My Prism, HR:5.05 (5.05 + 0.0
Offset), Prism Const.:0.0mm
4743 Occupy Pt: Occupy Point: 16
Northing: 1143915.652023USft Easting: 622548.992082USft
Elevation: 227.605USft Description: #4RS
4744 Note: HR:5.05 (5.05 + 0.0 Offset)
4745 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 5.05USft
4746 Backsight: Occupy Point: 16
Backsight Point: 18 Backsight Azimuth: 353.053612 Backsight
Circle: 0.0000
4747 Note: Fixed HR at Backsight:5.05 (5.05 + 0.0 Offset),
Prism Const.:0.0mm
4748 Note: BS check 16 - 18:ZE90.1029,SD712.43,HD err= -
0.014706, VD err= -0.028536
4749 Note: BS Circle check : angular err= 0.0000
4750 Note: BS check 16 - 18:ZE90.1029,SD712.432,HD err= -
0.012706, VD err= -0.028542
4751 Note: BS Circle check : angular err= 0.0000
4752 Occupy Pt: Occupy Point: 16
Northing: 1143915.652023USft Easting: 622548.992082USft
Elevation: 227.605USft Description: #4RS
4753 Note: HR:5.05 (5.05 + 0.0 Offset)

4754 Line of Sight (HI/HR): Height of Instrument: 5.29USft
Height of Rod: 5.05USft
4755 Backsight: Occupy Point: 16
Backsight Point: 18 Backsight Azimuth: 353.053612 Backsight
Circle: 0.0000
4756 Note: Fixed HR at Backsight:5.05 (5.05 + 0.0 Offset),
Prism Const.:0.0mm
4757 Note: BS check 16 - 18:ZE90.1029,SD712.43,HD err= -
0.014706, VD err= -0.038536
4758 Note: BS Circle check : angular err= 0.0000
4759 Occupy Pt: Occupy Point: 16
Northing: 1143915.652023USft Easting: 622548.992082USft
Elevation: 227.605USft Description: #4RS
4760 Note: HR:5.05 (5.05 + 0.0 Offset)
4761 Line of Sight (HI/HR): Height of Instrument: 5.31USft
Height of Rod: 5.05USft
4762 Backsight: Occupy Point: 16
Backsight Point: 18 Backsight Azimuth: 353.053612 Backsight
Circle: 0.0000
4763 Note: Fixed HR at Backsight:5.05 (5.05 + 0.0 Offset),
Prism Const.:0.0mm
4764 Note: BS check 16 - 18:ZE90.1029,SD712.438,HD err= -
0.006706, VD err= -0.018561
4765 Note: BS Circle check : angular err= 0.0000
4766 Side Shot: Occupy Point: 16
Foresight Point: 548 Angle Right: 0.0000 Zenith
Angle: 90.1029 Slope Distance: 712.438USft Description: CHK18
4767 Note: Date: 04-17-2007 Time: 09:09:08
4768 Occupy Pt: Occupy Point: 16
Northing: 1143915.652023USft Easting: 622548.992082USft
Elevation: 227.605USft Description: #4RS
4769 Backsight: Occupy Point: 16
Backsight Point: 18 Backsight Azimuth: 353.053612 Backsight
Circle: 0.0000
4770 Note: Fixed HR at Backsight:5.05 (5.05 + 0.0 Offset),
Prism Const.:0.0mm
4771 Note: BS check 16 - 18:ZE90.1033,SD712.426,HD err= -
0.018748, VD err= -0.03234
4772 Note: BS Circle check : angular err= 0.0000
4773 Note: BS check 16 - 18:ZE90.1032,SD712.424,HD err= -
0.020738, VD err= -0.02888
4774 Note: BS Circle check : angular err= 0.0000
4775 Note: BS check 16 - 18:ZE90.1032,SD712.426,HD err= -
0.018738, VD err= -0.028886
4776 Note: BS Circle check : angular err= 0.0000
4777 Note: Foresight Target:My Prism, HR:5.15 (5.15 + 0.0
Offset), Prism Const.:0.0mm
4778 Note: HR:5.15 (5.15 + 0.0 Offset)
4779 Line of Sight (HI/HR): Height of Instrument: 5.31USft
Height of Rod: 5.15USft
4780 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
4781 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0005
4782 Repeat Directional: Foresight Reverse
Set: 1 Angle: 338.2707
4783 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 269.0522
4784 Multiple Distances: Set: 1
Slope Distance: 552.862USft
4785 Repeat Foresight: Occupy Point: 16
Foresight Point: 549 Angle Right: 338.2707 Zenith
Angle: 269.0522 Slope Distance: 552.862USft Height of Rod: 5.15USft
Description: NS
4786 Repeat Directional: Foresight Direct
Set: 1 Angle: 158.2704
4787 Repeat Directional: Zenith Direct

Set: 1 Zenith: 90.5441
4788 Multiple Distances: Set: 1
Slope Distance: 552.862USft
4789 Repeat Foresight: Occupy Point: 16
Foresight Point: 549 Angle Right: 158.2704 Zenith
Angle: 90.5441 Slope Distance: 552.862USft Height of Rod: 5.15USft
Description: NS
4790 Note: Horizontal Angle Error: 0.0002
4791 Note: Zenith Angle Error: 0.0003
4792 Note: Slope Distance Error: 0.0
4793 Note: Horizontal Angle Error compares to the average:
0.0000
4794 Note: Zenith Angle Error compares to the average:
0.0000
4795 Note: Slope Distance Error compares to the average: 0.0
4796 Side Shot: Occupy Point: 16
Foresight Point: 549 Angle Right: 158.2703 Zenith
Angle: 90.54395 Slope Distance: 552.862USft Description: NS
4797 Note: Foresight Target:My Prism, HR:5.33 (5.33 + 0.0
Offset), Prism Const.:0.0mm
4798 Occupy Pt: Occupy Point: 549
Northing: 1143429.645511USft Easting: 622812.386843USft
Elevation: 218.975161USft Description: NS
4799 Note: HR:5.33 (5.33 + 0.0 Offset)
4800 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 5.33USft
4801 Backsight: Occupy Point: 549
Backsight Point: 16 Backsight Azimuth: 331.323912 Backsight
Circle: 0.0000
4802 Note: Fixed HR at Backsight:5.33 (5.33 + 0.0 Offset),
Prism Const.:0.0mm
4803 Note: BS check 549 - 16:ZE89.0610,SD552.856,HD err= -
0.003906, VD err= -0.002755
4804 Note: BS Circle check : angular err= 0.0000
4805 Side Shot: Occupy Point: 549
Foresight Point: 550 Angle Right: 0.0000 Zenith
Angle: 89.0611 Slope Distance: 552.86USft Description: CHK16
4806 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
4807 Note: Foresight Target:My Prism, HR:8.5 (8.5 + 0.0
Offset), Prism Const.:0.0mm
4808 Note: HR:8.5 (8.5 + 0.0 Offset)
4809 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 8.5USft
4810 Side Shot: Occupy Point: 549
Foresight Point: 551 Angle Right: 132.2035 Zenith
Angle: 89.3233 Slope Distance: 353.996USft Description: REMI-1101N
4811 Note: Date: 04-17-2007 Time: 09:42:57
4812 Note: Foresight Target:My Prism, HR:11.5 (11.5 + 0.0
Offset), Prism Const.:0.0mm
4813 Note: HR:11.5 (11.5 + 0.0 Offset)
4814 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 11.5USft
4815 Side Shot: Occupy Point: 549
Foresight Point: 552 Angle Right: 166.3337 Zenith
Angle: 89.2558 Slope Distance: 514.938USft Description: REMI-1101S
4816 Note: Foresight Target:My Prism, HR:8.5 (8.5 + 0.0
Offset), Prism Const.:0.0mm
4817 Note: HR:8.5 (8.5 + 0.0 Offset)
4818 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 8.5USft
4819 Side Shot: Occupy Point: 549
Foresight Point: 553 Angle Right: 152.4050 Zenith
Angle: 89.4301 Slope Distance: 415.876USft Description: REMI-1101CL
4820 Note: Foresight Target:My Prism, HR:11.5 (11.5 + 0.0
Offset), Prism Const.:0.0mm
4821 Note: HR:11.5 (11.5 + 0.0 Offset)

4822 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 11.5USft
4823 Side Shot: Occupy Point: 549
Foresight Point: 554 Angle Right: 118.1941 Zenith
Angle: 89.4010 Slope Distance: 885.17USft Description: REMI-1102W
4824 Note: Foresight Target:My Prism, HR:8.5 (8.5 + 0.0
Offset), Prism Const.:0.0mm
4825 Note: HR:8.5 (8.5 + 0.0 Offset)
4826 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 8.5USft
4827 Side Shot: Occupy Point: 549
Foresight Point: 555 Angle Right: 118.1835 Zenith
Angle: 89.5308 Slope Distance: 1034.498USft Description: REMI-1102CL
4828 Side Shot: Occupy Point: 549
Foresight Point: 556 Angle Right: 118.1534 Zenith
Angle: 89.5415 Slope Distance: 1183.486USft Description: REMI-1102E
4829 Note: Foresight Target:My Prism, HR:5.33 (5.33 + 0.0
Offset), Prism Const.:0.0mm
4830 Note: HR:5.33 (5.33 + 0.0 Offset)
4831 Line of Sight (HI/HR): Height of Instrument: 5.3USft
Height of Rod: 5.33USft
4832 Side Shot: Occupy Point: 549
Foresight Point: 557 Angle Right: 0.0002 Zenith
Angle: 89.0601 Slope Distance: 552.862USft Description: CHK16
4833 Note: Date: 04-17-2007 Time: 10:05:49
4834 Note: Foresight Target:My Prism, HR:5.2 (5.2 + 0.0
Offset), Prism Const.:0.0mm
4835 Occupy Pt: Occupy Point: 546
Northing: 1146368.601361USft Easting: 621715.235294USft
Elevation: 239.941722USft Description: NS
4836 Note: HR:5.2 (5.2 + 0.0 Offset)
4837 Line of Sight (HI/HR): Height of Instrument: 5.22USft
Height of Rod: 5.2USft
4838 Backsight: Occupy Point: 546
Backsight Point: 398 Backsight Azimuth: 61.034121 Backsight
Circle: 0.0000
4839 Note: Fixed HR at Backsight:5.2 (5.2 + 0.0 Offset),
Prism Const.:0.0mm
4840 Note: BS check 546 - 398:ZE85.4934,SD119.624,HD err=
0.005451, VD err= -0.018699
4841 Note: BS Circle check : angular err= 0.0000
4842 Side Shot: Occupy Point: 546
Foresight Point: 558 Angle Right: 0.0000 Zenith
Angle: 85.4934 Slope Distance: 119.622USft Description: CHK398
4843 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
4844 Note: Foresight Target:My Prism, HR:8.5 (8.5 + 0.0
Offset), Prism Const.:0.0mm
4845 Note: Foresight Target:My Prism, HR:10.5 (10.5 + 0.0
Offset), Prism Const.:0.0mm
4846 Note: HR:10.5 (10.5 + 0.0 Offset)
4847 Line of Sight (HI/HR): Height of Instrument: 5.22USft
Height of Rod: 10.5USft
4848 Side Shot: Occupy Point: 546
Foresight Point: 559 Angle Right: 162.3335 Zenith
Angle: 98.4526 Slope Distance: 459.624USft Description: ER-1106
4849 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
4850 Note: HR:4.97 (4.97 + 0.0 Offset)
4851 Line of Sight (HI/HR): Height of Instrument: 5.22USft
Height of Rod: 4.97USft
4852 Side Shot: Occupy Point: 546
Foresight Point: 560 Angle Right: 196.1704 Zenith
Angle: 101.0509 Slope Distance: 13.826USft Description: ER-1106
4853 Note: Foresight Target:My Prism, HR:5.2 (5.2 + 0.0
Offset), Prism Const.:0.0mm
4854 Note: HR:5.2 (5.2 + 0.0 Offset)

4855 Line of Sight (HI/HR): Height of Instrument: 5.22USft
Height of Rod: 5.2USft
4856 Side Shot: Occupy Point: 546
Foresight Point: 561 Angle Right: 0.0000 Zenith
Angle: 85.4931 Slope Distance: 119.62USft Description: CHK398
4857 Note: Foresight Target:My Prism, HR:4.81 (4.81 + 0.0
Offset), Prism Const.:0.0mm
4858 Occupy Pt: Occupy Point: 391
Northing: 1146732.719339USft Easting: 622146.018893USft
Elevation: 253.187269USft Description: NS
4859 Note: HR:4.81 (4.81 + 0.0 Offset)
4860 Line of Sight (HI/HR): Height of Instrument: 5.24USft
Height of Rod: 4.81USft
4861 Backsight: Occupy Point: 391
Backsight Point: 106 Backsight Azimuth: 0.042212 Backsight
Circle: 0.0000
4862 Note: Fixed HR at Backsight:4.81 (4.81 + 0.0 Offset),
Prism Const.:0.0mm
4863 Note: BS check 391 - 106:ZE92.5654,SD630.882,HD err= -
0.022887, VD err= -0.04251
4864 Note: BS Circle check : angular err= 0.0000
4865 Note: BS check 391 - 106:ZE92.5653,SD630.878,HD err= -
0.026724, VD err= -0.03925
4866 Note: BS Circle check : angular err= 0.0000
4867 Side Shot: Occupy Point: 391
Foresight Point: 562 Angle Right: 0.0000 Zenith
Angle: 92.5653 Slope Distance: 630.876USft Description: CHK106
4868 Note: Date: 04-17-2007 Time: 10:42:03
4869 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
4870 Occupy Pt: Occupy Point: 391
Northing: 1146732.719339USft Easting: 622146.018893USft
Elevation: 253.187269USft Description: NS
4871 Note: HR:4.97 (4.97 + 0.0 Offset)
4872 Line of Sight (HI/HR): Height of Instrument: 5.24USft
Height of Rod: 4.97USft
4873 Backsight: Occupy Point: 391
Backsight Point: 106 Backsight Azimuth: 0.042212 Backsight
Circle: 0.0000
4874 Note: Fixed HR at Backsight:4.81 (4.81 + 0.0 Offset),
Prism Const.:0.0mm
4875 Note: BS check 391 - 106:ZE92.5648,SD630.878,HD err= -
0.025938, VD err= -0.023977
4876 Note: BS Circle check : angular err= 0.0000
4877 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
4878 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0001
4879 Repeat Directional: Foresight Reverse
Set: 1 Angle: 178.4308
4880 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 267.0337
4881 Multiple Distances: Set: 1
Slope Distance: 135.458USft
4882 Repeat Foresight: Occupy Point: 391
Foresight Point: 563 Angle Right: 178.4308 Zenith
Angle: 267.0337 Slope Distance: 135.458USft Height of Rod: 4.97USft
Description: NS
4883 Repeat Directional: Foresight Direct
Set: 1 Angle: 358.4308
4884 Repeat Directional: Zenith Direct
Set: 1 Zenith: 92.5615
4885 Multiple Distances: Set: 1
Slope Distance: 135.454USft
4886 Repeat Foresight: Occupy Point: 391
Foresight Point: 563 Angle Right: 358.4308 Zenith
Angle: 92.5615 Slope Distance: 135.454USft Height of Rod: 4.97USft

Description: NS
4887 Note: Horizontal Angle Error: 0.0001
4888 Note: Zenith Angle Error: 0.0008
4889 Note: Slope Distance Error: 0.004
4890 Note: Horizontal Angle Error compares to the average: 0.0000
4891 Note: Zenith Angle Error compares to the average: 0.0000
4892 Note: Slope Distance Error compares to the average: 0.0
4893 Side Shot: Occupy Point: 391
Foresight Point: 563 Angle Right: 358.43075 Zenith Angle: 92.5619 Slope Distance: 135.456USft Description: NS
4894 Note: Foresight Target:My Prism, HR:4.81 (4.81 + 0.0 Offset), Prism Const.:0.0mm
4895 Occupy Pt: Occupy Point: 563
Northing: 1146867.967132USft Easting: 622143.165926USft
Elevation: 246.512988USft Description: NS
4896 Note: HR:4.81 (4.81 + 0.0 Offset)
4897 Line of Sight (HI/HR): Height of Instrument: 5.05USft
Height of Rod: 4.81USft
4898 Backsight: Occupy Point: 563
Backsight Point: 106 Backsight Azimuth: 0.252299 Backsight Circle: 0.0000
4899 Note: Fixed HR at Backsight:4.81 (4.81 + 0.0 Offset), Prism Const.:0.0mm
4900 Note: BS check 563 - 106:ZE92.5736,SD495.484,HD err= -0.01205, VD err= -0.043296
4901 Note: BS Circle check : angular err= 0.0000
4902 Side Shot: Occupy Point: 563
Foresight Point: 564 Angle Right: 0.0000 Zenith Angle: 92.5736 Slope Distance: 495.482USft Description: CHK106
4903 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
4904 Note: HR:4.97 (4.97 + 0.0 Offset)
4905 Line of Sight (HI/HR): Height of Instrument: 5.05USft
Height of Rod: 4.97USft
4906 Side Shot: Occupy Point: 563
Foresight Point: 565 Angle Right: 274.5552 Zenith Angle: 90.3235 Slope Distance: 68.904USft Description: TP-B-1197
4907 Note: Foresight Target:My Prism, HR:4.81 (4.81 + 0.0 Offset), Prism Const.:0.0mm
4908 Note: HR:4.81 (4.81 + 0.0 Offset)
4909 Line of Sight (HI/HR): Height of Instrument: 5.05USft
Height of Rod: 4.81USft
4910 Side Shot: Occupy Point: 563
Foresight Point: 566 Angle Right: 359.5959 Zenith Angle: 92.5741 Slope Distance: 495.484USft Description: CHK106
4911 Occupy Pt: Occupy Point: 103
Northing: 1147554.052416USft Easting: 622478.488412USft
Elevation: 222.662545USft Description: NS
4912 Note: HR:4.81 (4.81 + 0.0 Offset)
4913 Line of Sight (HI/HR): Height of Instrument: 5.25USft
Height of Rod: 4.81USft
4914 Backsight: Occupy Point: 103
Backsight Point: 106 Backsight Azimuth: 240.014512 Backsight Circle: 0.0000
4915 Note: Fixed HR at Backsight:4.81 (4.81 + 0.0 Offset), Prism Const.:0.0mm
4916 Note: BS check 103 - 106:ZE90.1724,SD382.87,HD err= -0.00048, VD err= -0.045426
4917 Note: BS Circle check : angular err= 0.0000
4918 Side Shot: Occupy Point: 103
Foresight Point: 567 Angle Right: 0.0000 Zenith Angle: 90.1724 Slope Distance: 382.87USft Description: CHK106
4919 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
4920 Note: HR:4.97 (4.97 + 0.0 Offset)

4921 Line of Sight (HI/HR): Height of Instrument: 5.25USft
Height of Rod: 4.97USft
4922 Side Shot: Occupy Point: 103
Foresight Point: 568 Angle Right: 69.1339 Zenith
Angle: 94.0830 Slope Distance: 149.466USft Description: TP-B-1195
4923 Note: Foresight Target:My Prism, HR:4.81 (4.81 + 0.0
Offset), Prism Const.:0.0mm
4924 Note: HR:4.81 (4.81 + 0.0 Offset)
4925 Line of Sight (HI/HR): Height of Instrument: 5.25USft
Height of Rod: 4.81USft
4926 Side Shot: Occupy Point: 103
Foresight Point: 569 Angle Right: 359.5959 Zenith
Angle: 90.1722 Slope Distance: 382.872USft Description: CHK106
4927 Note: Foresight Target:My Prism, HR:5.41 (5.41 + 0.0
Offset), Prism Const.:0.0mm
4928 Occupy Pt: Occupy Point: 106
Northing: 1147362.788633USft Easting: 622146.81958USft
Elevation: 221.2101USft Description: NS
4929 Note: HR:5.41 (5.41 + 0.0 Offset)
4930 Line of Sight (HI/HR): Height of Instrument: 5.03USft
Height of Rod: 5.41USft
4931 Backsight: Occupy Point: 106
Backsight Point: 103 Backsight Azimuth: 60.014512 Backsight
Circle: 0.0000
4932 Note: Fixed HR at Backsight:5.41 (5.41 + 0.0 Offset),
Prism Const.:0.0mm
4933 Note: Date: 04-17-2007 Time: 11:18:13
4934 Note: BS check 106 - 103:ZE89.4317,SD382.862,HD err= -
0.008102, VD err= 0.029284
4935 Note: BS Circle check : angular err= 0.0000
4936 Side Shot: Occupy Point: 106
Foresight Point: 570 Angle Right: 0.0000 Zenith
Angle: 89.4317 Slope Distance: 382.878USft Description: CHK103
4937 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
4938 Occupy Pt: Occupy Point: 106
Northing: 1147362.788633USft Easting: 622146.81958USft
Elevation: 221.2101USft Description: NS
4939 Note: HR:4.97 (4.97 + 0.0 Offset)
4940 Line of Sight (HI/HR): Height of Instrument: 5.03USft
Height of Rod: 4.97USft
4941 Backsight: Occupy Point: 106
Backsight Point: 103 Backsight Azimuth: 60.014512 Backsight
Circle: 0.0000
4942 Note: Fixed HR at Backsight:5.41 (5.41 + 0.0 Offset),
Prism Const.:0.0mm
4943 Note: BS check 106 - 103:ZE89.4314,SD382.87,HD err= -
0.000129, VD err= 0.034891
4944 Note: BS Circle check : angular err= 0.0000
4945 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
4946 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0005
4947 Repeat Directional: Foresight Reverse
Set: 1 Angle: 45.1959
4948 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 267.3756
4949 Multiple Distances: Set: 1
Slope Distance: 458.048USft
4950 Repeat Foresight: Occupy Point: 106
Foresight Point: 571 Angle Right: 45.1959 Zenith
Angle: 267.3756 Slope Distance: 458.048USft Height of Rod: 4.97USft
Description: NS
4951 Repeat Directional: Foresight Direct
Set: 1 Angle: 225.1953
4952 Repeat Directional: Zenith Direct
Set: 1 Zenith: 92.2149

4953 Multiple Distances: Set: 1
Slope Distance: 458.04USft
4954 Repeat Foresight: Occupy Point: 106
Foresight Point: 571 Angle Right: 225.1953 Zenith
Angle: 92.2149 Slope Distance: 458.04USft Height of Rod: 4.97USft
Description: NS
4955 Note: Horizontal Angle Error: 0.0001
4956 Note: Zenith Angle Error: 0.0015
4957 Note: Slope Distance Error: 0.008
4958 Note: Horizontal Angle Error compares to the average:
0.0000
4959 Note: Zenith Angle Error compares to the average:
0.0000
4960 Note: Slope Distance Error compares to the average: 0.0
4961 Side Shot: Occupy Point: 106
Foresight Point: 571 Angle Right: 225.19535 Zenith
Angle: 92.21565 Slope Distance: 458.044USft Description: NS
4962 Note: Foresight Target:My Prism, HR:5.4 (5.4 + 0.0
Offset), Prism Const.:0.0mm
4963 Occupy Pt: Occupy Point: 571
Northing: 1147484.018895USft Easting: 621705.514629USft
Elevation: 202.363222USft Description: NS
4964 Note: HR:5.4 (5.4 + 0.0 Offset)
4965 Line of Sight (HI/HR): Height of Instrument: 5.18USft
Height of Rod: 5.4USft
4966 Backsight: Occupy Point: 571
Backsight Point: 106 Backsight Azimuth: 105.213862 Backsight
Circle: 0.0000
4967 Note: Fixed HR at Backsight:5.4 (5.4 + 0.0 Offset),
Prism Const.:0.0mm
4968 Note: BS check 571 - 106:ZE87.3722,SD458.052,HD err=
0.00418, VD err= -0.06759
4969 Note: BS Circle check : angular err= 0.0000
4970 Note: BS check 571 - 106:ZE87.3715,SD458.06,HD err=
0.011528, VD err= -0.051726
4971 Note: BS Circle check : angular err= 0.0000
4972 Note: BS check 571 - 106:ZE87.3715,SD458.064,HD err=
0.015524, VD err= -0.05156
4973 Note: BS Circle check : angular err= 0.0000
4974 Side Shot: Occupy Point: 571
Foresight Point: 572 Angle Right: 0.0000 Zenith
Angle: 87.3715 Slope Distance: 458.066USft Description: CHK106
4975 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
4976 Note: HR:4.97 (4.97 + 0.0 Offset)
4977 Line of Sight (HI/HR): Height of Instrument: 5.18USft
Height of Rod: 4.97USft
4978 Side Shot: Occupy Point: 571
Foresight Point: 573 Angle Right: 264.4021 Zenith
Angle: 89.2745 Slope Distance: 16.826USft Description: TP-B-1194
4979 Note: Foresight Target:My Prism, HR:5.4 (5.4 + 0.0
Offset), Prism Const.:0.0mm
4980 Note: HR:5.4 (5.4 + 0.0 Offset)
4981 Line of Sight (HI/HR): Height of Instrument: 5.18USft
Height of Rod: 5.4USft
4982 Side Shot: Occupy Point: 571
Foresight Point: 574 Angle Right: 0.0002 Zenith
Angle: 87.3712 Slope Distance: 458.062USft Description: CHK106
4983 Note: Foresight Target:My Prism, HR:5.05 (5.05 + 0.0
Offset), Prism Const.:0.0mm
4984 Occupy Pt: Occupy Point: 9129
Northing: 1144354.1134USft Easting: 621822.084448USft
Elevation: 282.425327USft Description: NS
4985 Note: HR:5.05 (5.05 + 0.0 Offset)
4986 Line of Sight (HI/HR): Height of Instrument: 4.99USft
Height of Rod: 5.05USft
4987 Backsight: Occupy Point: 9129

Backsight Point: 180 Backsight Azimuth: 240.210544 Backsight Circle: 0.0000
4988 Note: Fixed HR at Backsight:5.05 (5.05 + 0.0 Offset), Prism Const.:0.0mm
4989 Note: BS check 9129 - 180:ZE90.5937,SD343.942,HD err= 0.027094, VD err= -0.091942
4990 Note: BS Circle check : angular err= 0.0000
4991 Occupy Pt: Occupy Point: 178
Northing: 1144354.112USft Easting: 621822.116USft
Elevation: 282.445USft Description: NS
4992 Backsight: Occupy Point: 178
Backsight Point: 180 Backsight Azimuth: 240.211553 Backsight Circle: 0.0000
4993 Note: Fixed HR at Backsight:5.05 (5.05 + 0.0 Offset), Prism Const.:0.0mm
4994 Note: BS check 178 - 180:ZE90.5934,SD343.942,HD err= 0.000452, VD err= -0.067268
4995 Note: BS Circle check : angular err= 0.0000
4996 Note: Foresight Target:My Prism, HR:5.06 (5.06 + 0.0 Offset), Prism Const.:0.0mm
4997 Note: Date: 04-17-2007 Time: 13:21:45
4998 Occupy Pt: Occupy Point: 178
Northing: 1144354.112USft Easting: 621822.116USft
Elevation: 282.445USft Description: NS
4999 Note: HR:5.06 (5.06 + 0.0 Offset)
5000 Line of Sight (HI/HR): Height of Instrument: 4.98USft Height of Rod: 5.06USft
5001 Backsight: Occupy Point: 178
Backsight Point: 180 Backsight Azimuth: 240.211553 Backsight Circle: 0.0000
5002 Note: Fixed HR at Backsight:5.06 (5.06 + 0.0 Offset), Prism Const.:0.0mm
5003 Note: BS check 178 - 180:ZE90.5929,SD343.946,HD err= 0.004596, VD err= -0.079001
5004 Note: BS Circle check : angular err= 0.0000
5005 Note: Foresight Target:My Prism, HR:5.05 (5.05 + 0.0 Offset), Prism Const.:0.0mm
5006 Occupy Pt: Occupy Point: 178
Northing: 1144354.112USft Easting: 621822.116USft
Elevation: 282.445USft Description: NS
5007 Note: HR:5.05 (5.05 + 0.0 Offset)
5008 Line of Sight (HI/HR): Height of Instrument: 4.99USft Height of Rod: 5.05USft
5009 Backsight: Occupy Point: 178
Backsight Point: 180 Backsight Azimuth: 240.211553 Backsight Circle: 0.0000
5010 Note: Fixed HR at Backsight:5.05 (5.05 + 0.0 Offset), Prism Const.:0.0mm
5011 Note: BS check 178 - 180:ZE90.5929,SD343.952,HD err= 0.010595, VD err= -0.059105
5012 Note: BS Circle check : angular err= 0.0000
5013 Note: Foresight Target:My Prism, HR:5.06 (5.06 + 0.0 Offset), Prism Const.:0.0mm
5014 Occupy Pt: Occupy Point: 178
Northing: 1144354.112USft Easting: 621822.116USft
Elevation: 282.445USft Description: NS
5015 Note: HR:5.06 (5.06 + 0.0 Offset)
5016 Line of Sight (HI/HR): Height of Instrument: 4.98USft Height of Rod: 5.06USft
5017 Backsight: Occupy Point: 178
Backsight Point: 180 Backsight Azimuth: 240.211553 Backsight Circle: 0.0000
5018 Note: Fixed HR at Backsight:5.06 (5.06 + 0.0 Offset), Prism Const.:0.0mm
5019 Note: BS check 178 - 180:ZE90.5928,SD343.948,HD err= 0.006624, VD err= -0.077368
5020 Note: BS Circle check : angular err= 0.0000

5021 Note: BS check 178 - 180:ZE90.5932,SD343.944,HD err= 0.002509, VD err= -0.083968
5022 Note: BS Circle check : angular err= 0.0000
5023 Side Shot: Occupy Point: 178
Foresight Point: 575 Angle Right: 0.0000 Zenith Angle: 90.5932 Slope Distance: 343.954USft Description: CHK180
5024 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
5025 Note: HR:4.97 (4.97 + 0.0 Offset)
5026 Line of Sight (HI/HR): Height of Instrument: 4.98USft
Height of Rod: 4.97USft
5027 Side Shot: Occupy Point: 178
Foresight Point: 576 Angle Right: 312.4013 Zenith Angle: 91.3927 Slope Distance: 98.444USft Description: ER-1103CL
5028 Side Shot: Occupy Point: 178
Foresight Point: 577 Angle Right: 326.2115 Zenith Angle: 91.4249 Slope Distance: 433.198USft Description: TP-B-1117
5029 Store Point: Point Name: 578
Northing: 1144346.116591USft Easting: 622018.068167USft
Elevation: 273.490389USft Description: CHK174
5030 Cut Sheet: Elevation: 273.490389USft
Design Grade: 273.506
5031 Design Point/Location: Point Name: 174
Northing: 1144346.12USft Easting: 622018.031USft
Elevation: 273.506USft Description: NS
5032 Stakeout Deltas: Delta Northing: 0.003409USft
Delta Easting: -0.037167USft Delta Elevation: 0.015611USft
5033 Stakeout: Occupy Point: 178
Foresight Point: 578 Angle Right: 211.5856 Zenith Angle: 92.3702 Slope Distance: 196.32USft Description: CHK174
5034 Occupy Pt: Occupy Point: 172
Northing: 1144830.997USft Easting: 621990.458USft
Elevation: 238.886USft Description: NS
5035 Note: HR:4.97 (4.97 + 0.0 Offset)
5036 Line of Sight (HI/HR): Height of Instrument: 5.26USft
Height of Rod: 4.97USft
5037 Backsight: Occupy Point: 172
Backsight Point: 21 Backsight Azimuth: 350.143373 Backsight Circle: 0.0000
5038 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
5039 Note: BS check 172 - 21:ZE90.0852,SD371.656,HD err= 0.053663, VD err= 0.034423
5040 Note: BS Circle check : angular err= 0.0000
5041 Note: BS check 172 - 21:ZE90.0851,SD371.652,HD err= 0.049667, VD err= 0.036235
5042 Note: BS Circle check : angular err= 0.0000
5043 Note: BS check 172 - 21:ZE90.0849,SD371.646,HD err= 0.043676, VD err= 0.039854
5044 Note: BS Circle check : angular err= 0.0000
5045 Note: Date: 04-17-2007 Time: 13:45:31
5046 Side Shot: Occupy Point: 172
Foresight Point: 579 Angle Right: 0.0001 Zenith Angle: 90.0852 Slope Distance: 371.654USft Description: CHK21
5047 Side Shot: Occupy Point: 172
Foresight Point: 580 Angle Right: 243.2256 Zenith Angle: 86.4912 Slope Distance: 210.238USft Description: ER-1103S
5048 Note: Foresight Target:My Prism, HR:5.05 (5.05 + 0.0 Offset), Prism Const.:0.0mm
5049 Occupy Pt: Occupy Point: 183
Northing: 1144136.094USft Easting: 621271.785USft
Elevation: 271.894USft Description: NS
5050 Note: HR:5.05 (5.05 + 0.0 Offset)
5051 Line of Sight (HI/HR): Height of Instrument: 5.25USft
Height of Rod: 5.05USft
5052 Backsight: Occupy Point: 183
Backsight Point: 180 Backsight Azimuth: 79.123942 Backsight

Circle: 0.0000
5053 Note: Fixed HR at Backsight:5.05 (5.05 + 0.0 Offset), Prism Const.:0.0mm
5054 Note: BS check 183 - 180:ZE89.0115,SD256.044,HD err= 0.025646, VD err= -0.023502
5055 Note: BS Circle check : angular err= 0.0000
5056 Note: BS check 183 - 180:ZE89.0115,SD256.046,HD err= 0.027645, VD err= -0.023468
5057 Note: BS Circle check : angular err= 0.0000
5058 Side Shot: Occupy Point: 183
Foresight Point: 581 Angle Right: 0.0000 Zenith Angle: 89.0116 Slope Distance: 256.044USft Description: CHK180
5059 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
5060 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0007
5061 Repeat Directional: Foresight Reverse
Set: 1 Angle: 88.1023
5062 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 270.2557
5063 Multiple Distances: Set: 1
Slope Distance: 112.31USft
5064 Repeat Foresight: Occupy Point: 183
Foresight Point: 582 Angle Right: 88.1023 Zenith Angle: 270.2557 Slope Distance: 112.31USft Height of Rod: 5.05USft Description: NS
5065 Repeat Directional: Foresight Direct
Set: 1 Angle: 268.1018
5066 Repeat Directional: Zenith Direct
Set: 1 Zenith: 89.3400
5067 Multiple Distances: Set: 1
Slope Distance: 112.298USft
5068 Repeat Foresight: Occupy Point: 183
Foresight Point: 582 Angle Right: 268.1018 Zenith Angle: 89.3400 Slope Distance: 112.298USft Height of Rod: 5.05USft Description: NS
5069 Note: Horizontal Angle Error: 0.0002
5070 Note: Zenith Angle Error: 0.0003
5071 Note: Slope Distance Error: 0.012
5072 Note: Horizontal Angle Error compares to the average: 0.0000
5073 Note: Zenith Angle Error compares to the average: 0.0000
5074 Note: Slope Distance Error compares to the average: 0.0
5075 Side Shot: Occupy Point: 183
Foresight Point: 582 Angle Right: 268.1017 Zenith Angle: 89.34015 Slope Distance: 112.304USft Description: NS
5076 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
5077 Occupy Pt: Occupy Point: 582
Northing: 1144245.68267USft Easting: 621247.253557USft
Elevation: 272.942541USft Description: NS
5078 Note: HR:4.97 (4.97 + 0.0 Offset)
5079 Line of Sight (HI/HR): Height of Instrument: 4.94USft
Height of Rod: 4.97USft
5080 Backsight: Occupy Point: 582
Backsight Point: 183 Backsight Azimuth: 167.225642 Backsight Circle: 0.0000
5081 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
5082 Note: BS check 582 - 183:ZE90.3411,SD112.286,HD err= -0.020345, VD err= -0.09796
5083 Note: BS Circle check : angular err= 0.0000
5084 Occupy Pt: Occupy Point: 582
Northing: 1144245.68267USft Easting: 621247.253557USft
Elevation: 272.942541USft Description: NS
5085 Backsight: Occupy Point: 582

Backsight Point: 183 Backsight Azimuth: 167.225642 Backsight Circle: 0.0000
5086 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
5087 Note: BS check 582 - 183:ZE90.3416,SD112.308,HD err= 0.001627, VD err= -0.100901
5088 Note: BS Circle check : angular err= 0.0000
5089 Note: BS check 582 - 183:ZE90.3415,SD112.292,HD err= -0.014367, VD err= -0.100197
5090 Note: BS Circle check : angular err= 0.0000
5091 Note: Date: 04-17-2007 Time: 14:24:38
5092 Side Shot: Occupy Point: 582
Foresight Point: 583 Angle Right: 0.0000 Zenith Angle: 90.3418 Slope Distance: 112.296USft Description: CHK183
5093 Side Shot: Occupy Point: 582
Foresight Point: 584 Angle Right: 136.0054 Zenith Angle: 94.0759 Slope Distance: 121.688USft Description: TP-B-1108
5094 Side Shot: Occupy Point: 582
Foresight Point: 585 Angle Right: 0.0000 Zenith Angle: 90.3414 Slope Distance: 112.286USft Description: CHK183
5095 Note: Foresight Target:My Prism, HR:5.05 (5.05 + 0.0 Offset), Prism Const.:0.0mm
5096 Occupy Pt: Occupy Point: 183
Northing: 1144136.094USft Easting: 621271.785USft Elevation: 271.894USft Description: NS
5097 Note: HR:5.05 (5.05 + 0.0 Offset)
5098 Line of Sight (HI/HR): Height of Instrument: 5.27USft Height of Rod: 5.05USft
5099 Backsight: Occupy Point: 183
Backsight Point: 581 Backsight Azimuth: 79.123942 Backsight Circle: 0.0000
5100 Note: Fixed HR at Backsight:5.05 (5.05 + 0.0 Offset), Prism Const.:0.0mm
5101 Note: BS check 183 - 581:ZE89.0141,SD256.038,HD err= -0.005471, VD err= -0.011131
5102 Note: BS Circle check : angular err= 0.0000
5103 Note: BS check 183 - 581:ZE89.0139,SD256.036,HD err= -0.007513, VD err= -0.008682
5104 Note: BS Circle check : angular err= 0.0000
5105 Side Shot: Occupy Point: 183
Foresight Point: 586 Angle Right: 0.0000 Zenith Angle: 89.0139 Slope Distance: 256.038USft Description: CHK581
5106 Occupy Pt: Occupy Point: 183
Northing: 1144136.094USft Easting: 621271.785USft Elevation: 271.894USft Description: NS
5107 Backsight: Occupy Point: 183
Backsight Point: 581 Backsight Azimuth: 79.123942 Backsight Circle: 0.0000
5108 Note: Fixed HR at Backsight:5.05 (5.05 + 0.0 Offset), Prism Const.:0.0mm
5109 Note: BS check 183 - 581:ZE89.0140,SD256.04,HD err= -0.003492, VD err= -0.009856
5110 Note: BS Circle check : angular err= 0.0000
5111 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
5112 Note: HR:4.97 (4.97 + 0.0 Offset)
5113 Line of Sight (HI/HR): Height of Instrument: 5.27USft Height of Rod: 4.97USft
5114 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
5115 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0010
5116 Repeat Directional: Foresight Reverse
Set: 1 Angle: 282.4922
5117 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 267.1855
5118 Multiple Distances: Set: 1

Slope Distance: 327.554USft
5119 Repeat Foresight: Occupy Point: 183
Foresight Point: 587 Angle Right: 282.4922 Zenith
Angle: 267.1855 Slope Distance: 327.554USft Height of Rod: 4.97USft
Description: NS
5120 Repeat Directional: Foresight Direct
Set: 1 Angle: 102.4913
5121 Repeat Directional: Zenith Direct
Set: 1 Zenith: 92.4059
5122 Multiple Distances: Set: 1
Slope Distance: 327.562USft
5123 Repeat Foresight: Occupy Point: 183
Foresight Point: 587 Angle Right: 102.4913 Zenith
Angle: 92.4059 Slope Distance: 327.562USft Height of Rod: 4.97USft
Description: NS
5124 Note: Horizontal Angle Error: 0.0001
5125 Note: Zenith Angle Error: 0.0006
5126 Note: Slope Distance Error: 0.008
5127 Note: Horizontal Angle Error compares to the average:
0.0000
5128 Note: Zenith Angle Error compares to the average:
0.0000
5129 Note: Slope Distance Error compares to the average: 0.0
5130 Side Shot: Occupy Point: 183
Foresight Point: 587 Angle Right: 102.49125 Zenith
Angle: 92.4102 Slope Distance: 327.558USft Description: NS
5131 Store Point: Point Name: 580
Northing: 1144706.503421USft Easting: 621821.445128USft
Elevation: 250.838528USft Description: ER-1103N
5132 Note: Foresight Target:My Prism, HR:5.37 (5.37 + 0.0
Offset), Prism Const.:0.0mm
5133 Occupy Pt: Occupy Point: 587
Northing: 1143809.100869USft Easting: 621260.188509USft
Elevation: 256.85591USft Description: NS
5134 Note: HR:5.37 (5.37 + 0.0 Offset)
5135 Line of Sight (HI/HR): Height of Instrument: 5.23USft
Height of Rod: 5.37USft
5136 Backsight: Occupy Point: 587
Backsight Point: 183 Backsight Azimuth: 2.015192 Backsight
Circle: 0.0000
5137 Note: Fixed HR at Backsight:5.37 (5.37 + 0.0 Offset),
Prism Const.:0.0mm
5138 Note: BS check 587 - 183:ZE87.2056,SD327.552,HD err=
0.002727, VD err= -0.027464
5139 Note: BS Circle check : angular err= 0.0000
5140 Note: BS check 587 - 183:ZE87.2104,SD327.546,HD err= -
0.002679, VD err= -0.040432
5141 Note: BS Circle check : angular err= 0.0000
5142 Side Shot: Occupy Point: 587
Foresight Point: 588 Angle Right: 0.0000 Zenith
Angle: 87.2104 Slope Distance: 327.554USft Description: CHK183
5143 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
5144 Note: HR:4.97 (4.97 + 0.0 Offset)
5145 Line of Sight (HI/HR): Height of Instrument: 5.23USft
Height of Rod: 4.97USft
5146 Side Shot: Occupy Point: 587
Foresight Point: 589 Angle Right: 272.0043 Zenith
Angle: 89.3556 Slope Distance: 173.67USft Description: ER-1104W
5147 Note: Date: 04-17-2007 Time: 14:50:30
5148 Side Shot: Occupy Point: 587
Foresight Point: 590 Angle Right: 85.0534 Zenith
Angle: 90.0004 Slope Distance: 276.932USft Description: ER-1104CL
5149 Side Shot: Occupy Point: 587
Foresight Point: 591 Angle Right: 87.5815 Zenith
Angle: 89.4757 Slope Distance: 525.008USft Description: ER-1103S
5150 Side Shot: Occupy Point: 587

Foresight Point: 592 Angle Right: 87.0259 Zenith
Angle: 89.5828 Slope Distance: 726.154USft Description: ER-1104E
5151 Side Shot: Occupy Point: 587
Foresight Point: 593 Angle Right: 113.4349 Zenith
Angle: 92.0000 Slope Distance: 472.878USft Description: TP-B-1125
5152 Note: Foresight Target:My Prism, HR:5.37 (5.37 + 0.0
Offset), Prism Const.:0.0mm
5153 Note: HR:5.37 (5.37 + 0.0 Offset)
5154 Line of Sight (HI/HR): Height of Instrument: 5.23USft
Height of Rod: 5.37USft
5155 Side Shot: Occupy Point: 587
Foresight Point: 594 Angle Right: 359.5959 Zenith
Angle: 87.2055 Slope Distance: 327.552USft Description: CHK183
5156 Note: Date: 04-17-2007 Time: 15:05:34
5157 Note: Foresight Target:My Prism, HR:5.07 (5.07 + 0.0
Offset), Prism Const.:0.0mm
5158 Occupy Pt: Occupy Point: 409
Northing: 1143681.686342USft Easting: 619899.804434USft
Elevation: 242.590997USft Description: NS
5159 Note: HR:5.07 (5.07 + 0.0 Offset)
5160 Line of Sight (HI/HR): Height of Instrument: 5.21USft
Height of Rod: 5.07USft
5161 Backsight: Occupy Point: 409
Backsight Point: 9143 Backsight Azimuth: 315.541713 Backsight
Circle: 0.0000
5162 Note: Fixed HR at Backsight:5.07 (5.07 + 0.0 Offset),
Prism Const.:0.0mm
5163 Note: BS check 409 - 9143:ZE89.1202,SD297.48,HD err= -
0.020206, VD err= -0.010611
5164 Note: BS Circle check : angular err= 0.0000
5165 Side Shot: Occupy Point: 409
Foresight Point: 595 Angle Right: 0.0000 Zenith
Angle: 89.1202 Slope Distance: 297.474USft Description: CHK9143
5166 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
5167 Note: HR:4.97 (4.97 + 0.0 Offset)
5168 Line of Sight (HI/HR): Height of Instrument: 5.21USft
Height of Rod: 4.97USft
5169 Off Center Shot: Angle Right: 144.3545
Zenith Angle: 90.1111 Slope Distance: 509.722USft
5170 Off Center Shot: Left/Right Offset: -3.0USft
Description: Left / Right Offset
5171 Side Shot: Occupy Point: 409
Foresight Point: 596 Angle Right: 144.153102 Zenith
Angle: 90.111099 Slope Distance: 509.730828USft Description: TP-B-1121
5172 Note: Foresight Target:My Prism, HR:5.07 (5.07 + 0.0
Offset), Prism Const.:0.0mm
5173 Note: HR:5.07 (5.07 + 0.0 Offset)
5174 Line of Sight (HI/HR): Height of Instrument: 5.21USft
Height of Rod: 5.07USft
5175 Side Shot: Occupy Point: 409
Foresight Point: 597 Angle Right: 0.0002 Zenith
Angle: 89.1150 Slope Distance: 297.482USft Description: CHK9143
5176 Occupy Pt: Occupy Point: 9147
Northing: 1143427.873958USft Easting: 619312.835435USft
Elevation: 233.516223USft Description: NS
5177 Note: HR:5.07 (5.07 + 0.0 Offset)
5178 Line of Sight (HI/HR): Height of Instrument: 5.14USft
Height of Rod: 5.07USft
5179 Backsight: Occupy Point: 9147
Backsight Point: 9143 Backsight Azimuth: 39.062263 Backsight
Circle: 0.0000
5180 Note: Fixed HR at Backsight:5.07 (5.07 + 0.0 Offset),
Prism Const.:0.0mm
5181 Note: BS check 9147 - 9143:ZE88.4414,SD602.58,HD err=
0.030011, VD err= -0.026405
5182 Note: BS Circle check : angular err= 0.0000

5183 Note: BS check 9147 - 9143:ZE88.4413,SD602.578,HD err= 0.027947, VD err= -0.023528
5184 Note: BS Circle check : angular err= 0.0000
5185 Side Shot: Occupy Point: 9147
Foresight Point: 598 Angle Right: 0.0000 Zenith Angle: 88.4415 Slope Distance: 602.582USft Description: CHK9143
5186 Note: Date: 04-17-2007 Time: 16:10:00
5187 Occupy Pt: Occupy Point: 9147
Northing: 1143427.873958USft Easting: 619312.835435USft
Elevation: 233.516223USft Description: NS
5188 Backsight: Occupy Point: 9147
Backsight Point: 9143 Backsight Azimuth: 39.062263 Backsight Circle: 0.0000
5189 Note: Fixed HR at Backsight:5.07 (5.07 + 0.0 Offset), Prism Const.:0.0mm
5190 Note: BS check 9147 - 9143:ZE88.4424,SD602.562,HD err= 0.012658, VD err= -0.056008
5191 Note: BS Circle check : angular err= 0.0000
5192 Note: BS check 9147 - 9143:ZE88.4419,SD602.568,HD err= 0.018335, VD err= -0.041272
5193 Note: BS Circle check : angular err= 0.0000
5194 Note: BS check 9147 - 9143:ZE88.4411,SD602.576,HD err= 0.025819, VD err= -0.017731
5195 Note: BS Circle check : angular err= 0.0000
5196 Note: BS check 9147 - 9143:ZE88.4410,SD602.572,HD err= 0.021755, VD err= -0.014899
5197 Note: BS Circle check : angular err= 0.0000
5198 Note: Foresight Target:My Prism, HR:5.1 (5.1 + 0.0 Offset), Prism Const.:0.0mm
5199 Note: HR:5.1 (5.1 + 0.0 Offset)
5200 Line of Sight (HI/HR): Height of Instrument: 5.14USft
Height of Rod: 5.1USft
5201 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
5202 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0011
5203 Repeat Directional: Foresight Reverse
Set: 1 Angle: 322.4135
5204 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 269.3047
5205 Multiple Distances: Set: 1
Slope Distance: 464.152USft
5206 Repeat Foresight: Occupy Point: 9147
Foresight Point: 599 Angle Right: 322.4135 Zenith Angle: 269.3047 Slope Distance: 464.152USft Height of Rod: 5.1USft
Description: NS
5207 Repeat Directional: Foresight Direct
Set: 1 Angle: 142.4122
5208 Repeat Directional: Zenith Direct
Set: 1 Zenith: 90.2907
5209 Multiple Distances: Set: 1
Slope Distance: 464.156USft
5210 Repeat Foresight: Occupy Point: 9147
Foresight Point: 599 Angle Right: 142.4122 Zenith Angle: 90.2907 Slope Distance: 464.156USft Height of Rod: 5.1USft
Description: NS
5211 Note: Horizontal Angle Error: 0.0002
5212 Note: Zenith Angle Error: 0.0006
5213 Note: Slope Distance Error: 0.004
5214 Note: Horizontal Angle Error compares to the average: 0.0000
5215 Note: Zenith Angle Error compares to the average: 0.0000
5216 Note: Slope Distance Error compares to the average: 0.0
5217 Side Shot: Occupy Point: 9147
Foresight Point: 599 Angle Right: 142.4123 Zenith Angle: 90.2910 Slope Distance: 464.154USft Description: NS

5218 Note: Foresight Target:My Prism, HR:5.2 (5.2 + 0.0 Offset), Prism Const.:0.0mm
5219 Occupy Pt: Occupy Point: 599
Northing: 1142963.964672USft Easting: 619298.288852USft
Elevation: 229.618277USft Description: NS
5220 Note: HR:5.2 (5.2 + 0.0 Offset)
5221 Line of Sight (HI/HR): Height of Instrument: 5.08USft
Height of Rod: 5.2USft
5222 Backsight: Occupy Point: 599
Backsight Point: 9147 Backsight Azimuth: 1.474563 Backsight Circle: 0.0000
5223 Note: Fixed HR at Backsight:5.2 (5.2 + 0.0 Offset), Prism Const.:0.0mm
5224 Note: BS check 599 - 9147:ZE89.3026,SD464.174,HD err= 0.019538, VD err= -0.025823
5225 Note: BS Circle check : angular err= 0.0000
5226 Note: BS check 599 - 9147:ZE89.3027,SD464.174,HD err= 0.019557, VD err= -0.028073
5227 Note: BS Circle check : angular err= 0.0000
5228 Note: BS check 599 - 9147:ZE89.3026,SD464.176,HD err= 0.021538, VD err= -0.025806
5229 Note: BS Circle check : angular err= 0.0000
5230 Note: BS check 599 - 9147:ZE89.3025,SD464.17,HD err= 0.015519, VD err= -0.023607
5231 Note: BS Circle check : angular err= 0.0000
5232 Side Shot: Occupy Point: 599
Foresight Point: 600 Angle Right: 0.0000 Zenith Angle: 89.3025 Slope Distance: 464.178USft Description: CHK9147
5233 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
5234 Note: HR:4.97 (4.97 + 0.0 Offset)
5235 Line of Sight (HI/HR): Height of Instrument: 5.08USft
Height of Rod: 4.97USft
5236 Side Shot: Occupy Point: 599
Foresight Point: 601 Angle Right: 140.1314 Zenith Angle: 91.0743 Slope Distance: 418.688USft Description: B-6020
5237 Note: Date: 04-17-2007 Time: 16:31:40
5238 Note: Foresight Target:My Prism, HR:5.06 (5.06 + 0.0 Offset), Prism Const.:0.0mm
5239 Occupy Pt: Occupy Point: 599
Northing: 1142963.964672USft Easting: 619298.288852USft
Elevation: 229.618277USft Description: NS
5240 Note: HR:5.06 (5.06 + 0.0 Offset)
5241 Line of Sight (HI/HR): Height of Instrument: 5.08USft
Height of Rod: 5.06USft
5242 Backsight: Occupy Point: 599
Backsight Point: 9147 Backsight Azimuth: 1.474563 Backsight Circle: 0.0000
5243 Note: Fixed HR at Backsight:5.2 (5.2 + 0.0 Offset), Prism Const.:0.0mm
5244 Note: BS check 599 - 9147:ZE89.3023,SD464.176,HD err= 0.02148, VD err= -0.019055
5245 Note: BS Circle check : angular err= 0.0000
5246 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
5247 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0009
5248 Repeat Directional: Foresight Reverse
Set: 1 Angle: 354.1702
5249 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 268.2603
5250 Multiple Distances: Set: 1
Slope Distance: 471.55USft
5251 Repeat Foresight: Occupy Point: 599
Foresight Point: 602 Angle Right: 354.1702 Zenith Angle: 268.2603 Slope Distance: 471.55USft Height of Rod: 5.06USft
Description: NS

5252 Repeat Directional: Foresight Direct
Set: 1 Angle: 174.1651
5253 Repeat Directional: Zenith Direct
Set: 1 Zenith: 91.3346
5254 Multiple Distances: Set: 1
Slope Distance: 471.552USft
5255 Repeat Foresight: Occupy Point: 599
Foresight Point: 602 Angle Right: 174.1651 Zenith
Angle: 91.3346 Slope Distance: 471.552USft Height of Rod: 5.06USft
Description: NS
5256 Note: Horizontal Angle Error: 0.0002
5257 Note: Zenith Angle Error: 0.0011
5258 Note: Slope Distance Error: 0.002
5259 Note: Horizontal Angle Error compares to the average:
0.0000
5260 Note: Zenith Angle Error compares to the average:
0.0000
5261 Note: Slope Distance Error compares to the average: 0.0
5262 Side Shot: Occupy Point: 599
Foresight Point: 602 Angle Right: 174.1652 Zenith
Angle: 91.33515 Slope Distance: 471.551USft Description: NS
5263 Note: Foresight Target:My Prism, HR:4.89 (4.89 + 0.0
Offset), Prism Const.:0.0mm
5264 Occupy Pt: Occupy Point: 602
Northing: 1142493.693826USft Easting: 619330.537381USft
Elevation: 216.765458USft Description: NS
5265 Note: HR:4.89 (4.89 + 0.0 Offset)
5266 Line of Sight (HI/HR): Height of Instrument: 4.92USft
Height of Rod: 4.89USft
5267 Backsight: Occupy Point: 602
Backsight Point: 599 Backsight Azimuth: 356.043763 Backsight
Circle: 0.0000
5268 Note: Fixed HR at Backsight:4.89 (4.89 + 0.0 Offset),
Prism Const.:0.0mm
5269 Note: BS check 602 - 599:ZE88.2705,SD471.542,HD err= -
0.005488, VD err= -0.079363
5270 Note: BS Circle check : angular err= 0.0000
5271 Occupy Pt: Occupy Point: 602
Northing: 1142493.693826USft Easting: 619330.537381USft
Elevation: 216.765458USft Description: NS
5272 Note: HR:4.89 (4.89 + 0.0 Offset)
5273 Line of Sight (HI/HR): Height of Instrument: 4.97USft
Height of Rod: 4.89USft
5274 Backsight: Occupy Point: 602
Backsight Point: 599 Backsight Azimuth: 356.043763 Backsight
Circle: 0.0000
5275 Note: Fixed HR at Backsight:4.89 (4.89 + 0.0 Offset),
Prism Const.:0.0mm
5276 Note: BS check 602 - 599:ZE88.2703,SD471.544,HD err= -
0.003613, VD err= -0.024738
5277 Note: BS Circle check : angular err= 0.0000
5278 Note: BS check 602 - 599:ZE88.2703,SD471.544,HD err= -
0.003613, VD err= -0.024738
5279 Note: BS Circle check : angular err= 0.0000
5280 Side Shot: Occupy Point: 602
Foresight Point: 603 Angle Right: 0.0000 Zenith
Angle: 88.2703 Slope Distance: 471.546USft Description: CHK599
5281 Note: Date: 04-17-2007 Time: 16:53:20
5282 Occupy Pt: Occupy Point: 602
Northing: 1142493.693826USft Easting: 619330.537381USft
Elevation: 216.765458USft Description: NS
5283 Backsight: Occupy Point: 602
Backsight Point: 599 Backsight Azimuth: 356.043763 Backsight
Circle: 0.0000
5284 Note: Fixed HR at Backsight:4.89 (4.89 + 0.0 Offset),
Prism Const.:0.0mm
5285 Note: BS check 602 - 599:ZE88.2704,SD471.538,HD err= -

0.009549, VD err= -0.027186
5286 Note: BS Circle check : angular err= 0.0000
5287 Note: BS check 602 - 599:ZE88.2704,SD471.544,HD err= -
0.003551, VD err= -0.027023
5288 Note: BS Circle check : angular err= 0.0000
5289 Note: Foresight Target:My Prism, HR:5.29 (5.29 + 0.0
Offset), Prism Const.:0.0mm
5290 Note: HR:5.29 (5.29 + 0.0 Offset)
5291 Line of Sight (HI/HR): Height of Instrument: 4.97USft
Height of Rod: 5.29USft
5292 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
5293 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0010
5294 Repeat Directional: Foresight Reverse
Set: 1 Angle: 5.1116
5295 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 269.3721
5296 Multiple Distances: Set: 1
Slope Distance: 320.614USft
5297 Repeat Foresight: Occupy Point: 602
Foresight Point: 604 Angle Right: 5.1116 Zenith
Angle: 269.3721 Slope Distance: 320.614USft Height of Rod: 5.29USft
Description: NS
5298 Repeat Directional: Foresight Direct
Set: 1 Angle: 185.1107
5299 Repeat Directional: Zenith Direct
Set: 1 Zenith: 90.2236
5300 Multiple Distances: Set: 1
Slope Distance: 320.622USft
5301 Repeat Foresight: Occupy Point: 602
Foresight Point: 604 Angle Right: 185.1107 Zenith
Angle: 90.2236 Slope Distance: 320.622USft Height of Rod: 5.29USft
Description: NS
5302 Note: Horizontal Angle Error: 0.0001
5303 Note: Zenith Angle Error: 0.0003
5304 Note: Slope Distance Error: 0.008
5305 Note: Horizontal Angle Error compares to the average:
0.0000
5306 Note: Zenith Angle Error compares to the average:
0.0000
5307 Note: Slope Distance Error compares to the average: 0.0
5308 Side Shot: Occupy Point: 602
Foresight Point: 604 Angle Right: 185.11065 Zenith
Angle: 90.22375 Slope Distance: 320.618USft Description: NS
5309 Note: Date: 04-17-2007 Time: 17:14:32
5310 Note: Foresight Target:My Prism, HR:5.0 (5.0 + 0.0
Offset), Prism Const.:0.0mm
5311 Occupy Pt: Occupy Point: 604
Northing: 1142173.16057USft Easting: 619323.474712USft
Elevation: 214.335375USft Description: NS
5312 Note: HR:5.0 (5.0 + 0.0 Offset)
5313 Line of Sight (HI/HR): Height of Instrument: 5.16USft
Height of Rod: 5.0USft
5314 Backsight: Occupy Point: 604
Backsight Point: 602 Backsight Azimuth: 1.154413 Backsight
Circle: 0.0000
5315 Note: Fixed HR at Backsight:5.0 (5.0 + 0.0 Offset),
Prism Const.:0.0mm
5316 Note: BS check 604 - 602:ZE89.3535,SD320.636,HD err=
0.016856, VD err= 0.007222
5317 Note: BS Circle check : angular err= 0.0000
5318 Note: BS check 604 - 602:ZE89.3532,SD320.634,HD err=
0.014823, VD err= 0.011871
5319 Note: BS Circle check : angular err= 0.0000
5320 Note: BS check 604 - 602:ZE89.3533,SD320.636,HD err=
0.016834, VD err= 0.010331

5321 Note: BS Circle check : angular err= 0.0000
5322 Side Shot: Occupy Point: 604
Foresight Point: 605 Angle Right: 0.0000 Zenith
Angle: 89.3533 Slope Distance: 320.638USft Description: CHK602
5323 Occupy Pt: Occupy Point: 604
Northing: 1142173.16057USft Easting: 619323.474712USft
Elevation: 214.335375USft Description: NS
5324 Backsight: Occupy Point: 604
Backsight Point: 602 Backsight Azimuth: 1.154413 Backsight
Circle: 0.0000
5325 Note: Fixed HR at Backsight:5.0 (5.0 + 0.0 Offset),
Prism Const.:0.0mm
5326 Note: BS check 604 - 602:ZE89.3539,SD320.628,HD err=
0.008901, VD err= 0.000947
5327 Note: BS Circle check : angular err= 0.0000
5328 Note: RD,BD 1:0.0000
5329 Note: RD,BV 1:180.0000
5330 Note: RD,FV 1:180.0000
5331 Note: RD,ZV 1:
5332 Note: MD,SD 1:
5333 Note: RF,OP604,FP,AR180.0000,ZE,SD,HR5.0,--
5334 Note: RD,FD 1:0.0000
5335 Note: RD,ZD 1:
5336 Note: MD,SD 1:
5337 Note: RF,OP604,FP,AR0.0000,ZE,SD,HR5.0,--
5338 Note: Horizontal Angle Error: 0.0000
5339 Note: Zenith Angle Error: 0.0000
5340 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
5341 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0009
5342 Repeat Directional: Foresight Reverse
Set: 1 Angle: 345.5401
5343 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 270.1836
5344 Multiple Distances: Set: 1
Slope Distance: 689.05USft
5345 Repeat Foresight: Occupy Point: 604
Foresight Point: 606 Angle Right: 345.5401 Zenith
Angle: 270.1836 Slope Distance: 689.05USft Height of Rod: 5.0USft
Description: NS
5346 Repeat Directional: Foresight Direct
Set: 1 Angle: 165.5354
5347 Repeat Directional: Zenith Direct
Set: 1 Zenith: 89.4124
5348 Multiple Distances: Set: 1
Slope Distance: 689.046USft
5349 Repeat Foresight: Occupy Point: 604
Foresight Point: 606 Angle Right: 165.5354 Zenith
Angle: 89.4124 Slope Distance: 689.046USft Height of Rod: 5.0USft
Description: NS
5350 Note: Horizontal Angle Error: 0.0002
5351 Note: Zenith Angle Error: 0.0000
5352 Note: Slope Distance Error: 0.004
5353 Note: Horizontal Angle Error compares to the average:
0.0000
5354 Note: Zenith Angle Error compares to the average:
0.0000
5355 Note: Slope Distance Error compares to the average: 0.0
5356 Side Shot: Occupy Point: 604
Foresight Point: 606 Angle Right: 165.5353 Zenith
Angle: 89.4124 Slope Distance: 689.048USft Description: NS
5357 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
5358 Note: HR:4.97 (4.97 + 0.0 Offset)
5359 Line of Sight (HI/HR): Height of Instrument: 5.16USft
Height of Rod: 4.97USft

5360 Side Shot: Occupy Point: 604
Foresight Point: 607 Angle Right: 272.0021 Zenith
Angle: 91.1339 Slope Distance: 220.476USft Description: B-6021
5361 Note: Foresight Target:My Prism, HR:5.0 (5.0 + 0.0
Offset), Prism Const.:0.0mm
5362 Note: HR:5.0 (5.0 + 0.0 Offset)
5363 Line of Sight (HI/HR): Height of Instrument: 5.16USft
Height of Rod: 5.0USft
5364 Side Shot: Occupy Point: 604
Foresight Point: 608 Angle Right: 359.5958 Zenith
Angle: 89.3533 Slope Distance: 320.636USft Description: CHK602
5365 Note: Date: 04-17-2007 Time: 17:34:21
5366 Note: Date: 04-17-2007 Time: 17:49:24
5367 Note: Foresight Target:My Prism, HR:5.29 (5.29 + 0.0
Offset), Prism Const.:0.0mm
5368 Occupy Pt: Occupy Point: 304
Northing: 1141699.058473USft Easting: 620338.090901USft
Elevation: 219.962187USft Description: NS
5369 Note: HR:5.29 (5.29 + 0.0 Offset)
5370 Line of Sight (HI/HR): Height of Instrument: 5.27USft
Height of Rod: 5.29USft
5371 Backsight: Occupy Point: 304
Backsight Point: 234 Backsight Azimuth: 80.291421 Backsight
Circle: 0.0000
5372 Note: Fixed HR at Backsight:5.29 (5.29 + 0.0 Offset),
Prism Const.:0.0mm
5373 Note: BS check 304 - 234:ZE89.4156,SD351.376,HD err=
0.011465, VD err= -0.015176
5374 Note: BS Circle check : angular err= 0.0000
5375 Note: BS check 304 - 234:ZE89.4159,SD351.378,HD err=
0.013492, VD err= -0.020276
5376 Note: BS Circle check : angular err= 0.0000
5377 Note: BS check 304 - 234:ZE89.4158,SD351.376,HD err=
0.011483, VD err= -0.018583
5378 Note: BS Circle check : angular err= 0.0000
5379 Note: BS check 304 - 234:ZE89.4150,SD351.38,HD err=
0.015411, VD err= -0.004934
5380 Note: BS Circle check : angular err= 0.0000
5381 Side Shot: Occupy Point: 304
Foresight Point: 609 Angle Right: 0.0000 Zenith
Angle: 89.4150 Slope Distance: 351.378USft Description: CHK234
5382 Note: Foresight Target:My Prism, HR:5.34 (5.34 + 0.0
Offset), Prism Const.:0.0mm
5383 Note: HR:5.34 (5.34 + 0.0 Offset)
5384 Line of Sight (HI/HR): Height of Instrument: 5.27USft
Height of Rod: 5.34USft
5385 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
5386 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0002
5387 Repeat Directional: Foresight Reverse
Set: 1 Angle: 141.0119
5388 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 269.5723
5389 Multiple Distances: Set: 1
Slope Distance: 470.97USft
5390 Repeat Foresight: Occupy Point: 304
Foresight Point: 610 Angle Right: 141.0119 Zenith
Angle: 269.5723 Slope Distance: 470.97USft Height of Rod: 5.34USft
Description: NS
5391 Repeat Directional: Foresight Direct
Set: 1 Angle: 321.0117
5392 Repeat Directional: Zenith Direct
Set: 1 Zenith: 90.0239
5393 Multiple Distances: Set: 1
Slope Distance: 470.97USft
5394 Repeat Foresight: Occupy Point: 304

Foresight Point: 610 Angle Right: 321.0117 Zenith
Angle: 90.0239 Slope Distance: 470.97USft Height of Rod: 5.34USft
Description: NS
5395 Note: Horizontal Angle Error: 0.0000
5396 Note: Zenith Angle Error: 0.0002
5397 Note: Slope Distance Error: 0.0
5398 Note: Horizontal Angle Error compares to the average:
0.0000
5399 Note: Zenith Angle Error compares to the average:
0.0000
5400 Note: Slope Distance Error compares to the average: 0.0
5401 Side Shot: Occupy Point: 304
Foresight Point: 610 Angle Right: 321.0117 Zenith
Angle: 90.0238 Slope Distance: 470.97USft Description: NS
5402 Note: Date: 04-18-2007 Time: 09:09:28
5403 Note: Foresight Target:My Prism, HR:5.39 (5.39 + 0.0
Offset), Prism Const.:0.0mm
5404 Note: HR:5.39 (5.39 + 0.0 Offset)
5405 Line of Sight (HI/HR): Height of Instrument: 5.27USft
Height of Rod: 5.39USft
5406 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
5407 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0002
5408 Repeat Directional: Foresight Reverse
Set: 1 Angle: 345.2913
5409 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 269.3709
5410 Multiple Distances: Set: 1
Slope Distance: 486.004USft
5411 Repeat Foresight: Occupy Point: 304
Foresight Point: 611 Angle Right: 345.2913 Zenith
Angle: 269.3709 Slope Distance: 486.004USft Height of Rod: 5.39USft
Description: NS
5412 Repeat Directional: Foresight Direct
Set: 1 Angle: 165.2909
5413 Repeat Directional: Zenith Direct
Set: 1 Zenith: 90.2250
5414 Multiple Distances: Set: 1
Slope Distance: 486.004USft
5415 Repeat Foresight: Occupy Point: 304
Foresight Point: 611 Angle Right: 165.2909 Zenith
Angle: 90.2250 Slope Distance: 486.004USft Height of Rod: 5.39USft
Description: NS
5416 Note: Horizontal Angle Error: 0.0002
5417 Note: Zenith Angle Error: 0.0001
5418 Note: Slope Distance Error: 0.0
5419 Note: Horizontal Angle Error compares to the average:
0.0000
5420 Note: Zenith Angle Error compares to the average:
0.0000
5421 Note: Slope Distance Error compares to the average: 0.0
5422 Side Shot: Occupy Point: 304
Foresight Point: 611 Angle Right: 165.2910 Zenith
Angle: 90.22505 Slope Distance: 486.004USft Description: NS
5423 Note: Foresight Target:My Prism, HR:5.38 (5.38 + 0.0
Offset), Prism Const.:0.0mm
5424 Occupy Pt: Occupy Point: 610
Northing: 1142051.746816USft Easting: 620650.218348USft
Elevation: 219.531421USft Description: NS
5425 Note: HR:5.38 (5.38 + 0.0 Offset)
5426 Line of Sight (HI/HR): Height of Instrument: 5.11USft
Height of Rod: 5.38USft
5427 Backsight: Occupy Point: 610
Backsight Point: 304 Backsight Azimuth: 221.303121 Backsight
Circle: 0.0000
5428 Note: Fixed HR at Backsight:5.38 (5.38 + 0.0 Offset),

Prism Const.:0.0mm
5429 Note: BS check 610 - 304:ZE89.5458,SD470.97,HD err= -0.000367, VD err= -0.011201
5430 Note: BS Circle check : angular err= 0.0000
5431 Occupy Pt: Occupy Point: 610
Northing: 1142051.746816USft Easting: 620650.218348USft
Elevation: 219.531421USft Description: NS
5432 Backsight: Occupy Point: 610
Backsight Point: 304 Backsight Azimuth: 221.303121 Backsight Circle: 0.0000
5433 Note: Fixed HR at Backsight:5.38 (5.38 + 0.0 Offset), Prism Const.:0.0mm
5434 Note: BS check 610 - 304:ZE89.5458,SD470.97,HD err= -0.000367, VD err= -0.011201
5435 Note: BS Circle check : angular err= 0.0000
5436 Side Shot: Occupy Point: 610
Foresight Point: 612 Angle Right: 0.0000 Zenith Angle: 89.5458 Slope Distance: 470.972USft Description: CHK304
5437 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
5438 Note: HR:4.97 (4.97 + 0.0 Offset)
5439 Line of Sight (HI/HR): Height of Instrument: 5.11USft
Height of Rod: 4.97USft
5440 Side Shot: Occupy Point: 610
Foresight Point: 613 Angle Right: 64.1947 Zenith Angle: 90.1840 Slope Distance: 633.964USft Description: B-6022
5441 Store Point: Point Name: 614
Northing: 1142034.030899USft Easting: 621961.186406USft
Elevation: 218.870523USft Description: CHK9
5442 Cut Sheet: Elevation: 218.870523USft
Design Grade: 218.933
5443 Design Point/Location: Point Name: 9
Northing: 1142033.9818USft Easting: 621961.2139USft
Elevation: 218.933USft Description: PKNS
5444 Stakeout Deltas: Delta Northing: -0.049099USft
Delta Easting: 0.027494USft Delta Elevation: 0.062477USft
5445 Stakeout: Occupy Point: 610
Foresight Point: 614 Angle Right: 229.1556 Zenith Angle: 90.0206 Slope Distance: 1311.088USft Description: CHK9
5446 Note: Date: 04-18-2007 Time: 09:37:31
5447 Note: Foresight Target:My Prism, HR:5.38 (5.38 + 0.0 Offset), Prism Const.:0.0mm
5448 Occupy Pt: Occupy Point: 611
Northing: 1141501.181045USft Easting: 619894.205799USft
Elevation: 216.61302USft Description: NS
5449 Note: HR:5.38 (5.38 + 0.0 Offset)
5450 Line of Sight (HI/HR): Height of Instrument: 5.23USft
Height of Rod: 5.38USft
5451 Backsight: Occupy Point: 611
Backsight Point: 304 Backsight Azimuth: 65.582421 Backsight Circle: 0.0000
5452 Note: Fixed HR at Backsight:5.38 (5.38 + 0.0 Offset), Prism Const.:0.0mm
5453 Note: BS check 611 - 304:ZE89.3518,SD486.012,HD err= 0.006183, VD err= -0.007231
5454 Note: BS Circle check : angular err= 0.0000
5455 Side Shot: Occupy Point: 611
Foresight Point: 615 Angle Right: 0.0000 Zenith Angle: 89.3518 Slope Distance: 486.012USft Description: CHK304
5456 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
5457 Note: HR:4.97 (4.97 + 0.0 Offset)
5458 Line of Sight (HI/HR): Height of Instrument: 5.23USft
Height of Rod: 4.97USft
5459 Side Shot: Occupy Point: 611
Foresight Point: 616 Angle Right: 113.4023 Zenith Angle: 90.0503 Slope Distance: 963.46USft Description: B-6026

5460 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
5461 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0003
5462 Repeat Directional: Foresight Reverse
Set: 1 Angle: 23.2723
5463 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 269.5440
5464 Multiple Distances: Set: 1
Slope Distance: 320.566USft
5465 Repeat Foresight: Occupy Point: 611
Foresight Point: 617 Angle Right: 23.2723 Zenith
Angle: 269.5440 Slope Distance: 320.566USft Height of Rod: 4.97USft
Description: NS
5466 Repeat Directional: Foresight Direct
Set: 1 Angle: 203.2723
5467 Repeat Directional: Zenith Direct
Set: 1 Zenith: 90.0528
5468 Multiple Distances: Set: 1
Slope Distance: 320.552USft
5469 Repeat Foresight: Occupy Point: 611
Foresight Point: 617 Angle Right: 203.2723 Zenith
Angle: 90.0528 Slope Distance: 320.552USft Height of Rod: 4.97USft
Description: NS
5470 Note: Horizontal Angle Error: 0.0003
5471 Note: Zenith Angle Error: 0.0008
5472 Note: Slope Distance Error: 0.014
5473 Note: Horizontal Angle Error compares to the average:
0.0000
5474 Note: Zenith Angle Error compares to the average:
0.0000
5475 Note: Slope Distance Error compares to the average: 0.0
5476 Side Shot: Occupy Point: 611
Foresight Point: 617 Angle Right: 203.27215 Zenith
Angle: 90.0524 Slope Distance: 320.559USft Description: NS
5477 Occupy Pt: Occupy Point: 203
Northing: 1145494.512061USft Easting: 626284.058583USft
Elevation: 94.586207USft Description: NS
5478 Note: HR:4.97 (4.97 + 0.0 Offset)
5479 Line of Sight (HI/HR): Height of Instrument: 4.97USft
Height of Rod: 4.97USft
5480 Backsight: Occupy Point: 203
Backsight Point: 200 Backsight Azimuth: 276.104562 Backsight
Circle: 0.0000
5481 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset),
Prism Const.:0.0mm
5482 Note: BS check 203 - 200:ZE88.5657,SD847.986,HD err=
0.007157, VD err= -0.067055
5483 Note: BS Circle check : angular err= 0.0000
5484 Note: BS check 203 - 200:ZE88.5655,SD847.994,HD err=
0.015005, VD err= -0.058688
5485 Note: BS Circle check : angular err= 0.0000
5486 Note: BS check 203 - 200:ZE88.5703,SD847.986,HD err=
0.007609, VD err= -0.091718
5487 Note: BS Circle check : angular err= 0.0000
5488 Occupy Pt: Occupy Point: 203
Northing: 1145494.512061USft Easting: 626284.058583USft
Elevation: 94.586207USft Description: NS
5489 Note: HR:4.97 (4.97 + 0.0 Offset)
5490 Line of Sight (HI/HR): Height of Instrument: 4.98USft
Height of Rod: 4.97USft
5491 Backsight: Occupy Point: 203
Backsight Point: 200 Backsight Azimuth: 276.104562 Backsight
Circle: 0.0000
5492 Note: Fixed HR at Backsight:4.97 (4.97 + 0.0 Offset),
Prism Const.:0.0mm
5493 Note: BS check 203 - 200:ZE88.5700,SD847.99,HD err=

0.011382, VD err= -0.069313
5494 Note: BS Circle check : angular err= 0.0000
5495 Note: BS check 203 - 200:ZE88.5650,SD847.996,HD err= 0.016627, VD err= -0.028098
5496 Note: BS Circle check : angular err= 0.0004
5497 Side Shot: Occupy Point: 203
Foresight Point: 618 Angle Right: 0.0000 Zenith Angle: 88.5650 Slope Distance: 847.992USft Description: CHK200
5498 Side Shot: Occupy Point: 203
Foresight Point: 619 Angle Right: 21.3705 Zenith Angle: 89.4449 Slope Distance: 250.568USft Description: B-6028
5499 Side Shot: Occupy Point: 203
Foresight Point: 620 Angle Right: 57.4847 Zenith Angle: 89.3742 Slope Distance: 316.936USft Description: B-6027
5500 Note: Date: 04-18-2007 Time: 10:10:49
5501 Store Point: Point Name: 621
Northing: 1145585.775297USft Easting: 625441.135262USft
Elevation: 110.143823USft Description: CHK200
5502 Cut Sheet: Elevation: 110.143823USft
Design Grade: 110.204879
5503 Design Point/Location: Point Name: 200
Northing: 1145585.773873USft Easting: 625441.148416USft
Elevation: 110.204879USft Description: NS
5504 Stakeout Deltas: Delta Northing: -0.001424USft
Delta Easting: 0.013154USft Delta Elevation: 0.061056USft
5505 Stakeout: Occupy Point: 203
Foresight Point: 621 Angle Right: 0.0000 Zenith Angle: 88.5658 Slope Distance: 847.992USft Description: CHK200
5506 Note: Foresight Target:My Prism, HR:5.36 (5.36 + 0.0 Offset), Prism Const.:0.0mm
5507 Occupy Pt: Occupy Point: 606
Northing: 1141501.351592USft Easting: 619476.595397USft
Elevation: 218.223465USft Description: NS
5508 Note: HR:5.36 (5.36 + 0.0 Offset)
5509 Line of Sight (HI/HR): Height of Instrument: 4.79USft
Height of Rod: 5.36USft
5510 Backsight: Occupy Point: 606
Backsight Point: 604 Backsight Azimuth: 347.093713 Backsight Circle: 0.0000
5511 Note: Fixed HR at Backsight:5.36 (5.36 + 0.0 Offset), Prism Const.:0.0mm
5512 Note: BS check 606 - 604:ZE90.1632,SD689.02,HD err= -0.025883, VD err= 0.004364
5513 Note: BS Circle check : angular err= 0.0000
5514 Note: BS check 606 - 604:ZE90.1633,SD689.016,HD err= -0.029899, VD err= 0.001042
5515 Note: BS Circle check : angular err= 0.0000
5516 Note: BS check 606 - 604:ZE90.1632,SD689.018,HD err= -0.027883, VD err= 0.004373
5517 Note: BS Circle check : angular err= 0.0000
5518 Side Shot: Occupy Point: 606
Foresight Point: 622 Angle Right: 0.0000 Zenith Angle: 90.1632 Slope Distance: 689.02USft Description: CHK604
5519 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
5520 Note: HR:4.97 (4.97 + 0.0 Offset)
5521 Line of Sight (HI/HR): Height of Instrument: 4.79USft
Height of Rod: 4.97USft
5522 Store Point: Point Name: 623
Northing: 1141498.305722USft Easting: 619573.335359USft
Elevation: 216.277985USft Description: CHK617
5523 Cut Sheet: Elevation: 216.277985USft
Design Grade: 216.369487
5524 Design Point/Location: Point Name: 617
Northing: 1141497.988507USft Easting: 619573.663092USft
Elevation: 216.369487USft Description: NS
5525 Stakeout Deltas: Delta Northing: -0.317215USft

Delta Easting: 0.327733USft Delta Elevation: 0.091502USft
5526 Stakeout: Occupy Point: 606
Foresight Point: 623 Angle Right: 104.3835 Zenith
Angle: 91.0242 Slope Distance: 96.804USft Description: CHK617
5527 Note: Date: 04-18-2007 Time: 10:44:29
5528 Note: Foresight Target:My Prism, HR:5.47 (5.47 + 0.0
Offset), Prism Const.:0.0mm
5529 Note: HR:5.47 (5.47 + 0.0 Offset)
5530 Line of Sight (HI/HR): Height of Instrument: 4.79USft
Height of Rod: 5.47USft
5531 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
5532 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0000
5533 Repeat Directional: Foresight Reverse
Set: 1 Angle: 12.2216
5534 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 269.5645
5535 Multiple Distances: Set: 1
Slope Distance: 730.29USft
5536 Repeat Foresight: Occupy Point: 606
Foresight Point: 624 Angle Right: 12.2216 Zenith
Angle: 269.5645 Slope Distance: 730.29USft Height of Rod: 5.47USft
Description: NS
5537 Repeat Directional: Foresight Direct
Set: 1 Angle: 192.2212
5538 Repeat Directional: Zenith Direct
Set: 1 Zenith: 90.0314
5539 Multiple Distances: Set: 1
Slope Distance: 730.294USft
5540 Repeat Foresight: Occupy Point: 606
Foresight Point: 624 Angle Right: 192.2212 Zenith
Angle: 90.0314 Slope Distance: 730.294USft Height of Rod: 5.47USft
Description: NS
5541 Note: Horizontal Angle Error: 0.0004
5542 Note: Zenith Angle Error: 0.0001
5543 Note: Slope Distance Error: 0.004
5544 Note: Horizontal Angle Error compares to the average:
0.0000
5545 Note: Zenith Angle Error compares to the average:
0.0000
5546 Note: Slope Distance Error compares to the average: 0.0
5547 Side Shot: Occupy Point: 606
Foresight Point: 624 Angle Right: 192.2214 Zenith
Angle: 90.03145 Slope Distance: 730.292USft Description: NS
5548 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
5549 Note: HR:4.97 (4.97 + 0.0 Offset)
5550 Line of Sight (HI/HR): Height of Instrument: 4.79USft
Height of Rod: 4.97USft
5551 Note: RD,BD 1:0.0000
5552 Note: RD,BV 1:180.0000
5553 Note: RD,FV 1:180.0000
5554 Note: RD,ZV 1:
5555 Note: MD,SD 1:
5556 Note: RF,OP606,FP,AR180.0000,ZE,SD,HR4.97,--
5557 Note: RD,FD 1:0.0000
5558 Note: RD,ZD 1:
5559 Note: MD,SD 1:
5560 Note: RF,OP606,FP,AR0.0000,ZE,SD,HR4.97,--
5561 Note: Horizontal Angle Error: 0.0000
5562 Note: Zenith Angle Error: 0.0000
5563 Occupy Pt: Occupy Point: 606
Northing: 1141501.351592USft Easting: 619476.595397USft
Elevation: 218.223465USft Description: NS
5564 Backsight: Occupy Point: 606
Backsight Point: 604 Backsight Azimuth: 347.093713 Backsight

Circle: 0.0000
5565 Note: Fixed HR at Backsight:5.36 (5.36 + 0.0 Offset), Prism Const.:0.0mm
5566 Note: BS check 606 - 604:ZE90.1639,SD689.016,HD err= -0.029996, VD err= -0.019
5567 Note: BS Circle check : angular err= 0.0000
5568 Note: BS check 606 - 604:ZE90.1638,SD689.022,HD err= -0.02398, VD err= -0.015689
5569 Note: BS Circle check : angular err= 0.0000
5570 Side Shot: Occupy Point: 606
Foresight Point: 625 Angle Right: 0.0000 Zenith Angle: 90.2409 Slope Distance: 90.988USft Description: NS
5571 Occupy Pt: Occupy Point: 606
Northing: 1141501.351592USft Easting: 619476.595397USft
Elevation: 218.223465USft Description: NS
5572 Backsight: Occupy Point: 606
Backsight Point: 604 Backsight Azimuth: 347.093713 Backsight Circle: 0.0000
5573 Note: Fixed HR at Backsight:5.36 (5.36 + 0.0 Offset), Prism Const.:0.0mm
5574 Note: BS check 606 - 604:ZE90.1636,SD689.018,HD err= -0.027947, VD err= -0.008989
5575 Note: BS Circle check : angular err= 0.0000
5576 Note: Foresight Target:My Prism, HR:5.36 (5.36 + 0.0 Offset), Prism Const.:0.0mm
5577 Occupy Pt: Occupy Point: 606
Northing: 1141501.351592USft Easting: 619476.595397USft
Elevation: 218.223465USft Description: NS
5578 Note: HR:5.36 (5.36 + 0.0 Offset)
5579 Line of Sight (HI/HR): Height of Instrument: 4.79USft
Height of Rod: 5.36USft
5580 Backsight: Occupy Point: 606
Backsight Point: 604 Backsight Azimuth: 347.093713 Backsight Circle: 0.0000
5581 Note: Fixed HR at Backsight:5.36 (5.36 + 0.0 Offset), Prism Const.:0.0mm
5582 Note: BS check 606 - 604:ZE90.1636,SD689.02,HD err= -0.025947, VD err= -0.008998
5583 Note: BS Circle check : angular err= 0.0000
5584 Side Shot: Occupy Point: 606
Foresight Point: 626 Angle Right: 0.0000 Zenith Angle: 90.1636 Slope Distance: 689.016USft Description: CHK604
5585 Occupy Pt: Occupy Point: 625
Northing: 1141590.062308USft Easting: 619456.376189USft
Elevation: 217.404284USft Description: NS
5586 Note: HR:5.36 (5.36 + 0.0 Offset)
5587 Line of Sight (HI/HR): Height of Instrument: 5.05USft
Height of Rod: 5.36USft
5588 Backsight: Occupy Point: 625
Backsight Point: 604 Backsight Azimuth: 347.093713 Backsight Circle: 0.0000
5589 Note: Fixed HR at Backsight:5.36 (5.36 + 0.0 Offset), Prism Const.:0.0mm
5590 Note: BS check 625 - 604:ZE90.1551,SD598.05,HD err= -0.008516, VD err= 0.001563
5591 Note: BS Circle check : angular err= 0.0000
5592 Side Shot: Occupy Point: 625
Foresight Point: 627 Angle Right: 0.0000 Zenith Angle: 90.1552 Slope Distance: 598.052USft Description: CHK604
5593 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
5594 Note: HR:4.97 (4.97 + 0.0 Offset)
5595 Line of Sight (HI/HR): Height of Instrument: 5.05USft
Height of Rod: 4.97USft
5596 Side Shot: Occupy Point: 625
Foresight Point: 628 Angle Right: 275.1645 Zenith Angle: 92.5950 Slope Distance: 281.328USft Description: B-6023

5597 Note: Date: 04-18-2007 Time: 11:15:35
5598 Note: Foresight Target:My Prism, HR:5.36 (5.36 + 0.0 Offset), Prism Const.:0.0mm
5599 Occupy Pt: Occupy Point: 625
Northing: 1141590.062308USft Easting: 619456.376189USft
Elevation: 217.404284USft Description: NS
5600 Note: HR:5.36 (5.36 + 0.0 Offset)
5601 Line of Sight (HI/HR): Height of Instrument: 5.05USft
Height of Rod: 5.36USft
5602 Backsight: Occupy Point: 625
Backsight Point: 604 Backsight Azimuth: 347.093713 Backsight Circle: 0.0000
5603 Note: Fixed HR at Backsight:5.36 (5.36 + 0.0 Offset), Prism Const.:0.0mm
5604 Note: BS check 625 - 604:ZE90.1544,SD598.052,HD err= -0.006423, VD err= 0.02185
5605 Note: BS Circle check : angular err= 0.0000
5606 Note: BS check 625 - 604:ZE90.1552,SD598.052,HD err= -0.00653, VD err= -0.001346
5607 Note: BS Circle check : angular err= 0.0000
5608 Side Shot: Occupy Point: 625
Foresight Point: 629 Angle Right: 0.0000 Zenith Angle: 90.1551 Slope Distance: 598.05USft Description: CHK604
5609 Note: Foresight Target:My Prism, HR:5.23 (5.23 + 0.0 Offset), Prism Const.:0.0mm
5610 Occupy Pt: Occupy Point: 624
Northing: 1140771.084396USft Easting: 619482.57487USft
Elevation: 216.854827USft Description: NS
5611 Note: HR:5.23 (5.23 + 0.0 Offset)
5612 Line of Sight (HI/HR): Height of Instrument: 5.16USft
Height of Rod: 5.23USft
5613 Backsight: Occupy Point: 624
Backsight Point: 606 Backsight Azimuth: 359.315113 Backsight Circle: 0.0000
5614 Note: Fixed HR at Backsight:5.23 (5.23 + 0.0 Offset), Prism Const.:0.0mm
5615 Note: BS check 624 - 606:ZE89.5335,SD730.294,HD err= 0.001053, VD err= -0.075521
5616 Note: BS Circle check : angular err= 0.0000
5617 Occupy Pt: Occupy Point: 624
Northing: 1140771.084396USft Easting: 619482.57487USft
Elevation: 216.854827USft Description: NS
5618 Backsight: Occupy Point: 624
Backsight Point: 606 Backsight Azimuth: 359.315113 Backsight Circle: 0.0000
5619 Note: Fixed HR at Backsight:5.23 (5.23 + 0.0 Offset), Prism Const.:0.0mm
5620 Note: BS check 624 - 606:ZE89.5335,SD730.292,HD err= -0.000947, VD err= -0.075525
5621 Note: BS Circle check : angular err= 0.0000
5622 Note: BS check 624 - 606:ZE89.5330,SD730.296,HD err= 0.003019, VD err= -0.057815
5623 Note: BS Circle check : angular err= 0.0000
5624 Note: BS check 624 - 606:ZE89.5324,SD730.302,HD err= 0.008979, VD err= -0.03656
5625 Note: BS Circle check : angular err= 0.0000
5626 Side Shot: Occupy Point: 624
Foresight Point: 630 Angle Right: 0.0000 Zenith Angle: 89.5325 Slope Distance: 730.298USft Description: CHK606
5627 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
5628 Note: HR:4.97 (4.97 + 0.0 Offset)
5629 Line of Sight (HI/HR): Height of Instrument: 5.16USft
Height of Rod: 4.97USft
5630 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
5631 Repeat Directional: Backsight Reverse

Set: 1 Angle: 179.5959
5632 Repeat Directional: Foresight Reverse
Set: 1 Angle: 48.5755
5633 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 265.1133
5634 Multiple Distances: Set: 1
Slope Distance: 264.238USft
5635 Repeat Foresight: Occupy Point: 624
Foresight Point: 631 Angle Right: 48.5755 Zenith
Angle: 265.1133 Slope Distance: 264.238USft Height of Rod: 4.97USft
Description: NS
5636 Repeat Directional: Foresight Direct
Set: 1 Angle: 228.5755
5637 Repeat Directional: Zenith Direct
Set: 1 Zenith: 94.4824
5638 Multiple Distances: Set: 1
Slope Distance: 264.25USft
5639 Repeat Foresight: Occupy Point: 624
Foresight Point: 631 Angle Right: 228.5755 Zenith
Angle: 94.4824 Slope Distance: 264.25USft Height of Rod: 4.97USft
Description: NS
5640 Note: Horizontal Angle Error: 0.0001
5641 Note: Zenith Angle Error: 0.0003
5642 Note: Slope Distance Error: 0.012
5643 Note: Horizontal Angle Error compares to the average:
0.0000
5644 Note: Zenith Angle Error compares to the average:
0.0000
5645 Note: Slope Distance Error compares to the average: 0.0
5646 Side Shot: Occupy Point: 624
Foresight Point: 631 Angle Right: 228.57555 Zenith
Angle: 94.48255 Slope Distance: 264.244USft Description: NS
5647 Note: Foresight Target:My Prism, HR:5.1 (5.1 + 0.0
Offset), Prism Const.:0.0mm
5648 Occupy Pt: Occupy Point: 631
Northing: 1140596.59413USft Easting: 619285.375262USft
Elevation: 194.900906USft Description: NS
5649 Note: HR:5.1 (5.1 + 0.0 Offset)
5650 Line of Sight (HI/HR): Height of Instrument: 5.2USft
Height of Rod: 5.1USft
5651 Backsight: Occupy Point: 631
Backsight Point: 624 Backsight Azimuth: 48.294663 Backsight
Circle: 0.0000
5652 Note: Fixed HR at Backsight:5.1 (5.1 + 0.0 Offset),
Prism Const.:0.0mm
5653 Note: BS check 631 - 624:ZE85.1527,SD264.21,HD err= -
0.00909, VD err= -0.009631
5654 Note: BS Circle check : angular err= 0.0000
5655 Side Shot: Occupy Point: 631
Foresight Point: 632 Angle Right: 0.0000 Zenith
Angle: 85.1527 Slope Distance: 264.208USft Description: CHK624
5656 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
5657 Note: HR:4.97 (4.97 + 0.0 Offset)
5658 Line of Sight (HI/HR): Height of Instrument: 5.2USft
Height of Rod: 4.97USft
5659 Side Shot: Occupy Point: 631
Foresight Point: 633 Angle Right: 182.1931 Zenith
Angle: 100.1829 Slope Distance: 125.402USft Description: B-6025
5660 Note: Foresight Target:My Prism, HR:5.1 (5.1 + 0.0
Offset), Prism Const.:0.0mm
5661 Occupy Pt: Occupy Point: 631
Northing: 1140596.59413USft Easting: 619285.375262USft
Elevation: 194.900906USft Description: NS
5662 Note: HR:5.1 (5.1 + 0.0 Offset)
5663 Line of Sight (HI/HR): Height of Instrument: 5.2USft
Height of Rod: 5.1USft

5664 Backsight: Occupy Point: 631
Backsight Point: 624 Backsight Azimuth: 48.294663 Backsight Circle: 0.0000
5665 Note: Fixed HR at Backsight:5.1 (5.1 + 0.0 Offset), Prism Const.:0.0mm
5666 Note: BS check 631 - 624:ZE85.1528,SD264.21,HD err= -0.008985, VD err= -0.010908
5667 Note: BS Circle check : angular err= 0.0000
5668 Side Shot: Occupy Point: 631
Foresight Point: 634 Angle Right: 0.0000 Zenith Angle: 85.1527 Slope Distance: 264.21USft Description: CHK624
5669 Note: Foresight Target:My Prism, HR:5.55 (5.55 + 0.0 Offset), Prism Const.:0.0mm
5670 Occupy Pt: Occupy Point: 9179
Northing: 1142844.238719USft Easting: 618387.621502USft
Elevation: 209.232944USft Description: NS
5671 Note: HR:5.55 (5.55 + 0.0 Offset)
5672 Line of Sight (HI/HR): Height of Instrument: 4.87USft
Height of Rod: 5.55USft
5673 Backsight: Occupy Point: 9179
Backsight Point: 9181 Backsight Azimuth: 277.432413 Backsight Circle: 0.0000
5674 Note: Fixed HR at Backsight:5.55 (5.55 + 0.0 Offset), Prism Const.:0.0mm
5675 Note: BS check 9179 - 9181:ZE86.2029,SD425.24,HD err= -0.001051, VD err= -0.032868
5676 Note: BS Circle check : angular err= 0.0000
5677 Note: BS check 9179 - 9181:ZE86.2029,SD425.244,HD err= 0.00294, VD err= -0.032613
5678 Note: BS Circle check : angular err= 0.0000
5679 Note: Date: 04-18-2007 Time: 12:53:40
5680 Note: BS check 9179 - 9181:ZE86.2026,SD425.242,HD err= 0.00055, VD err= -0.026568
5681 Note: BS Circle check : angular err= 0.0000
5682 Side Shot: Occupy Point: 9179
Foresight Point: 635 Angle Right: 0.0000 Zenith Angle: 86.2025 Slope Distance: 425.242USft Description: CHK9181
5683 Note: Foresight Target:My Prism, HR:5.37 (5.37 + 0.0 Offset), Prism Const.:0.0mm
5684 Note: HR:5.37 (5.37 + 0.0 Offset)
5685 Line of Sight (HI/HR): Height of Instrument: 4.87USft
Height of Rod: 5.37USft
5686 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
5687 Repeat Directional: Backsight Reverse
Set: 1 Angle: 179.5958
5688 Repeat Directional: Foresight Reverse
Set: 1 Angle: 45.2839
5689 Repeat Directional: Zenith Reverse
Set: 1 Zenith: 270.0642
5690 Multiple Distances: Set: 1
Slope Distance: 375.422USft
5691 Repeat Foresight: Occupy Point: 9179
Foresight Point: 636 Angle Right: 45.2839 Zenith Angle: 270.0642 Slope Distance: 375.422USft Height of Rod: 5.37USft
Description: NS
5692 Repeat Directional: Foresight Direct
Set: 1 Angle: 225.2830
5693 Repeat Directional: Zenith Direct
Set: 1 Zenith: 89.5319
5694 Multiple Distances: Set: 1
Slope Distance: 375.424USft
5695 Repeat Foresight: Occupy Point: 9179
Foresight Point: 636 Angle Right: 225.2830 Zenith Angle: 89.5319 Slope Distance: 375.424USft Height of Rod: 5.37USft
Description: NS
5696 Note: Horizontal Angle Error: 0.0011

5697 Note: Zenith Angle Error: 0.0001
5698 Note: Slope Distance Error: 0.002
5699 Note: Horizontal Angle Error compares to the average: 0.0000
5700 Note: Zenith Angle Error compares to the average: 0.0000
5701 Note: Slope Distance Error compares to the average: 0.0
5702 Side Shot: Occupy Point: 9179
Foresight Point: 636 Angle Right: 225.28355 Zenith Angle: 89.53185 Slope Distance: 375.423USft Description: NS
5703 Note: Foresight Target:My Prism, HR:5.66 (5.66 + 0.0 Offset), Prism Const.:0.0mm
5704 Occupy Pt: Occupy Point: 636
Northing: 1142543.626719USft Easting: 618612.508853USft
Elevation: 209.463715USft Description: NS
5705 Note: HR:5.66 (5.66 + 0.0 Offset)
5706 Line of Sight (HI/HR): Height of Instrument: 5.28USft
Height of Rod: 5.66USft
5707 Backsight: Occupy Point: 636
Backsight Point: 9179 Backsight Azimuth: 323.115963 Backsight Circle: 0.0000
5708 Note: Fixed HR at Backsight:5.66 (5.66 + 0.0 Offset), Prism Const.:0.0mm
5709 Note: BS check 636 - 9179:ZE89.5854,SD375.432,HD err= 0.009692, VD err= -0.0291
5710 Note: BS Circle check : angular err= 0.0000
5711 Note: BS check 636 - 9179:ZE89.5852,SD375.432,HD err= 0.009691, VD err= -0.02546
5712 Note: BS Circle check : angular err= 0.0000
5713 Occupy Pt: Occupy Point: 636
Northing: 1142543.626719USft Easting: 618612.508853USft
Elevation: 209.463715USft Description: NS
5714 Backsight: Occupy Point: 636
Backsight Point: 9179 Backsight Azimuth: 323.115963 Backsight Circle: 0.0000
5715 Note: Fixed HR at Backsight:5.66 (5.66 + 0.0 Offset), Prism Const.:0.0mm
5716 Note: BS check 636 - 9179:ZE89.5852,SD375.422,HD err= -0.000309, VD err= -0.025463
5717 Note: BS Circle check : angular err= 0.0000
5718 Occupy Pt: Occupy Point: 636
Northing: 1142543.626719USft Easting: 618612.508853USft
Elevation: 209.463715USft Description: NS
5719 Backsight: Occupy Point: 636
Backsight Point: 9179 Backsight Azimuth: 323.115963 Backsight Circle: 0.0000
5720 Note: Fixed HR at Backsight:5.66 (5.66 + 0.0 Offset), Prism Const.:0.0mm
5721 Note: BS check 636 - 9179:ZE89.5851,SD375.426,HD err= 0.00369, VD err= -0.023641
5722 Note: BS Circle check : angular err= 0.0000
5723 Side Shot: Occupy Point: 636
Foresight Point: 637 Angle Right: 0.0000 Zenith Angle: 89.5853 Slope Distance: 375.422USft Description: CHK9179
5724 Note: Date: 04-18-2007 Time: 13:21:16
5725 Note: Foresight Target:My Prism, HR:5.25 (5.25 + 0.0 Offset), Prism Const.:0.0mm
5726 Note: HR:5.25 (5.25 + 0.0 Offset)
5727 Line of Sight (HI/HR): Height of Instrument: 5.28USft
Height of Rod: 5.25USft
5728 Repeat Directional: Backsight Direct
Set: 1 Angle: 0.0000
5729 Repeat Directional: Backsight Reverse
Set: 1 Angle: 180.0001
5730 Repeat Directional: Foresight Reverse
Set: 1 Angle: 31.0138
5731 Repeat Directional: Zenith Reverse

Set: 1 Zenith: 262.2242
5732 Multiple Distances: Set: 1
Slope Distance: 237.962USft
5733 Repeat Foresight: Occupy Point: 636
Foresight Point: 638 Angle Right: 31.0138 Zenith
Angle: 262.2242 Slope Distance: 237.962USft Height of Rod: 5.25USft
Description: NS
5734 Repeat Directional: Foresight Direct
Set: 1 Angle: 211.0136
5735 Repeat Directional: Zenith Direct
Set: 1 Zenith: 97.3728
5736 Multiple Distances: Set: 1
Slope Distance: 237.958USft
5737 Repeat Foresight: Occupy Point: 636
Foresight Point: 638 Angle Right: 211.0136 Zenith
Angle: 97.3728 Slope Distance: 237.958USft Height of Rod: 5.25USft
Description: NS
5738 Note: Horizontal Angle Error: 0.0001
5739 Note: Zenith Angle Error: 0.0010
5740 Note: Slope Distance Error: 0.004
5741 Note: Horizontal Angle Error compares to the average:
0.0000
5742 Note: Zenith Angle Error compares to the average:
0.0000
5743 Note: Slope Distance Error compares to the average: 0.0
5744 Side Shot: Occupy Point: 636
Foresight Point: 638 Angle Right: 211.01365 Zenith
Angle: 97.3723 Slope Distance: 237.96USft Description: NS
5745 Note: Foresight Target:My Prism, HR:5.39 (5.39 + 0.0
Offset), Prism Const.:0.0mm
5746 Occupy Pt: Occupy Point: 638
Northing: 1142308.96609USft Easting: 618636.234325USft
Elevation: 177.927074USft Description: NS
5747 Note: HR:5.39 (5.39 + 0.0 Offset)
5748 Line of Sight (HI/HR): Height of Instrument: 5.16USft
Height of Rod: 5.39USft
5749 Backsight: Occupy Point: 638
Backsight Point: 636 Backsight Azimuth: 354.133613 Backsight
Circle: 0.0000
5750 Note: Fixed HR at Backsight:5.39 (5.39 + 0.0 Offset),
Prism Const.:0.0mm
5751 Note: BS check 638 - 636:ZE82.1952,SD237.99,HD err=
0.004405, VD err= -0.007335
5752 Note: BS Circle check : angular err= 0.0000
5753 Side Shot: Occupy Point: 638
Foresight Point: 639 Angle Right: 0.0000 Zenith
Angle: 82.1952 Slope Distance: 237.988USft Description: CHK636
5754 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
5755 Note: HR:4.97 (4.97 + 0.0 Offset)
5756 Line of Sight (HI/HR): Height of Instrument: 5.16USft
Height of Rod: 4.97USft
5757 Side Shot: Occupy Point: 638
Foresight Point: 640 Angle Right: 244.3817 Zenith
Angle: 92.2252 Slope Distance: 341.142USft Description: B-6019
5758 Note: Foresight Target:My Prism, HR:5.39 (5.39 + 0.0
Offset), Prism Const.:0.0mm
5759 Occupy Pt: Occupy Point: 638
Northing: 1142308.96609USft Easting: 618636.234325USft
Elevation: 177.927074USft Description: NS
5760 Note: HR:5.39 (5.39 + 0.0 Offset)
5761 Line of Sight (HI/HR): Height of Instrument: 5.16USft
Height of Rod: 5.39USft
5762 Backsight: Occupy Point: 638
Backsight Point: 636 Backsight Azimuth: 354.133613 Backsight
Circle: 0.0000
5763 Note: Fixed HR at Backsight:5.39 (5.39 + 0.0 Offset),

Prism Const.:0.0mm
5764 Note: BS check 638 - 636:ZE82.1950,SD237.99,HD err= 0.004097, VD err= -0.005048
5765 Note: BS Circle check : angular err= 0.0001
5766 Side Shot: Occupy Point: 638
Foresight Point: 641 Angle Right: 0.0000 Zenith Angle: 82.1948 Slope Distance: 237.99USft Description: CHK636
5767 Store Point: Point Name: 75
Northing: 1147931.1824USft Easting: 624175.1245USft
Elevation: 84.891USft Description: #4RS
5768 Store Point: Point Name: 77
Northing: 1148223.3539USft Easting: 623838.75USft
Elevation: 86.233USft Description: #4RS
5769 Note: Foresight Target:My Prism, HR:5.17 (5.17 + 0.0 Offset), Prism Const.:0.0mm
5770 Occupy Pt: Occupy Point: 75
Northing: 1147931.1824USft Easting: 624175.1245USft
Elevation: 84.891USft Description: #4RS
5771 Note: HR:5.17 (5.17 + 0.0 Offset)
5772 Line of Sight (HI/HR): Height of Instrument: 4.95USft
Height of Rod: 5.17USft
5773 Backsight: Occupy Point: 75
Backsight Point: 77 Backsight Azimuth: 310.583811 Backsight Circle: 0.0000
5774 Note: Fixed HR at Backsight:5.17 (5.17 + 0.0 Offset), Prism Const.:0.0mm
5775 Note: BS check 75 - 77:ZE89.4752,SD445.544,HD err= -0.005618, VD err= 0.010519
5776 Note: BS Circle check : angular err= 0.0000
5777 Side Shot: Occupy Point: 75
Foresight Point: 642 Angle Right: 0.0000 Zenith Angle: 89.4752 Slope Distance: 445.546USft Description: CHK77
5778 Note: Date: 04-18-2007 Time: 15:18:26
5779 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0 Offset), Prism Const.:0.0mm
5780 Note: HR:4.97 (4.97 + 0.0 Offset)
5781 Line of Sight (HI/HR): Height of Instrument: 4.95USft
Height of Rod: 4.97USft
5782 Off Center Shot: Angle Right: 221.2022
Zenith Angle: 89.2517 Slope Distance: 346.354USft
5783 Off Center Shot: Left/Right Offset: -1.2USft
Description: Left / Right Offset
5784 Side Shot: Occupy Point: 75
Foresight Point: 643 Angle Right: 221.082733 Zenith Angle: 89.251701 Slope Distance: 346.356079USft Description: B-6030
5785 Off Center Shot: Angle Right: 281.1031
Zenith Angle: 89.5300 Slope Distance: 262.492USft
5786 Off Center Shot: Left/Right Offset: 2.0USft
Description: Left / Right Offset
5787 Side Shot: Occupy Point: 75
Foresight Point: 644 Angle Right: 281.364256 Zenith Angle: 89.530001 Slope Distance: 262.499619USft Description: B-6029
5788 Occupy Pt: Occupy Point: 75
Northing: 1147931.1824USft Easting: 624175.1245USft
Elevation: 84.891USft Description: #4RS
5789 Backsight: Occupy Point: 75
Backsight Point: 77 Backsight Azimuth: 310.583811 Backsight Circle: 0.0000
5790 Note: Fixed HR at Backsight:5.17 (5.17 + 0.0 Offset), Prism Const.:0.0mm
5791 Note: BS check 75 - 77:ZE89.4752,SD445.548,HD err= -0.001618, VD err= 0.010533
5792 Note: BS Circle check : angular err= 0.0000
5793 Note: Foresight Target:My Prism, HR:5.17 (5.17 + 0.0 Offset), Prism Const.:0.0mm
5794 Occupy Pt: Occupy Point: 75
Northing: 1147931.1824USft Easting: 624175.1245USft

Elevation: 84.891USft Description: #4RS
5795 Note: HR:5.17 (5.17 + 0.0 Offset)
5796 Line of Sight (HI/HR): Height of Instrument: 4.95USft
Height of Rod: 5.17USft
5797 Backsight: Occupy Point: 75
Backsight Point: 77 Backsight Azimuth: 310.583811 Backsight
Circle: 0.0000
5798 Note: Fixed HR at Backsight:5.17 (5.17 + 0.0 Offset),
Prism Const.:0.0mm
5799 Note: BS check 75 - 77:ZE89.4751,SD445.548,HD err= -
0.001626, VD err= 0.012693
5800 Note: BS Circle check : angular err= 0.0000
5801 Side Shot: Occupy Point: 75
Foresight Point: 645 Angle Right: 0.0000 Zenith
Angle: 89.4751 Slope Distance: 445.55USft Description: CHK77
5802 Note: Data Collector Serial Number: FS29A13023
5803 Note: Activating Total Station: Nikon TOP GUN [Nikon],
COM1, 4800 baud, no parity
5804 Note: Foresight Target:My Prism, HR:5.17 (5.17 + 0.0
Offset), Prism Const.:0.0mm
5805 Note: Date: 04-18-2007 Time: 17:11:39
5806 Note: Data Collector Serial Number: FS29A13023
5807 Note: Activating Total Station: Nikon TOP GUN [Nikon],
COM1, 4800 baud, no parity
5808 Note: Survey Pro Version: 4.2.1
5809 Note: Data Collector Serial Number: FS29A13023
5810 Note: Activating Total Station: Nikon TOP GUN [Nikon],
COM1, 4800 baud, no parity
5811 Note: Foresight Target:My Prism, HR:4.97 (4.97 + 0.0
Offset), Prism Const.:0.0mm
5812 Note: Date: 05-14-2007 Time: 10:05:39
5813 Note: Date: 05-14-2007 Time: 15:32:27
5814 Note: Survey Pro Version: 4.2.1
5815 Note: Data Collector Serial Number: FS29A13023
5816 Note: Activating Total Station: Nikon TOP GUN [Nikon],
COM1, 4800 baud, no parity

QUALITY ASSURANCE REPORTS

Borehole Location and Staking Comparison by Coordinate Comparison

Last Revised 05-15-07

AS-BUILT COORDINATES					STAKED COORDINATES		
Point #	Northing	Easting	Elevation	Description	Description	North	East
192	1144168.36	620002.76	257.89	B-1105	B-1105	1144169.50	620005.80
189	1144153.75	620916.11	266.66	B-1107	B-1107	1144153.20	620912.50
186	1144214.07	621273.00	273.56	B-1108	B-1108	1144213.10	621274.80
182	1144180.46	621580.64	276.48	B-1109	B-1109	1144170.50	621634.10
176	1144170.91	622011.31	265.14	B-1110	B-1110	1144170.50	622050.70
327	1144212.59	622333.79	224.90	B-1111	B-1111	1144213.10	622333.00
326	1144223.37	622691.31	213.74	B-1112	B-1112	1144213.10	622574.00
325	1144219.36	622561.49	227.14	B-1112A	B-1112A	1144213.10	622574.00
367	1143901.44	620217.17	249.99	B-1113	B-1113	1143893.09	619858.06
187	1143894.12	621264.65	261.82	B-1116	B-1116	1143893.10	621274.80
443	1143890.75	621628.43	263.89	B-1117	B-1117	1143893.10	621627.50
177	1143885.92	622007.97	257.91	B-1118	B-1118	1143893.10	622050.70
168	1143888.30	622333.77	223.57	B-1119	B-1119	1143893.10	622333.00
324	1143893.05	622558.49	227.18	B-1120	B-1120	1143893.10	622574.00
446	1143575.57	620216.27	241.33	B-1121	B-1121	1143573.10	620216.70
342	1143575.43	620921.98	241.27	B-1123	B-1123	1143573.10	620922.10
345	1143627.62	621421.59	241.21	B-1124	B-1124	1143650.20	621422.30
348	1143586.80	621628.20	240.97	B-1125	B-1125	1143573.10	621627.50
116	1143567.68	621980.43	219.88	B-1126	B-1126	1143573.10	621980.30
166	1143573.26	622332.29	219.67	B-1127	B-1127	1143573.10	622333.00
329	1143572.65	622682.42	218.26	B-1128	B-1128	1143573.10	622635.69
330	1143573.71	622685.46	217.92	B-1128A	B-1128A	1143573.10	622635.69
117	1143278.22	621893.74	221.84	B-1129	B-1129	1143283.00	621891.00
319	1142482.76	622250.00	217.46	B-1130	B-1130	1142485.00	622280.00
292	1143172.99	621823.06	222.18	B-1131	B-1131	1143174.00	621823.50
263	1142614.19	621450.08	218.73	B-1132	B-1132	1142639.00	621452.00
262	1142968.94	621451.15	221.20	B-1133	B-1133	1142969.00	621452.00
333	1143282.88	621104.27	222.04	B-1134	B-1134	1143283.00	621104.00
332	1143178.11	621023.00	221.65	B-1136	B-1136	1143174.00	621023.00
488	1143469.69	619192.80	215.82	B-1138	B-1138	1143469.50	619191.89
249	1142289.86	621026.81	216.68	B-1139	B-1139	1142290.00	621023.50
137	1142290.16	621823.56	216.58	B-1140	B-1140	1142290.00	621823.50
369	1144416.58	620649.58	224.69	B-1142	B-1142	1144422.40	620831.00
163	1145428.36	622272.08	240.04	B-1146	B-1146	1145428.20	622272.00
210	1145537.78	623236.50	218.94	B-1148	B-1148	1145539.30	623238.50
196	1145467.29	624235.30	170.69	B-1150	B-1150	1145467.50	624235.00
199	1145581.68	625227.34	117.05	B-1152	B-1152	1145577.60	625227.20
202	1145568.97	625673.46	103.58	B-1153	B-1153	1145570.40	625727.10
206	1145664.20	626216.06	95.08	B-1154	B-1154	1145678.70	626215.20
58	1147390.34	624936.42	84.95	B-1155	B-1155	1147397.38	624948.45
64	1147302.50	624571.69	85.70	B-1156	B-1156	1147322.90	624521.23
55	1147209.56	625062.18	86.77	B-1157	B-1157	1147219.64	625075.77
205	1145194.92	626669.12	88.74	B-1158	B-1158	1145231.34	626689.50
62	1147285.78	624954.51	88.70	B-1159	B-1159	1147283.63	624943.36
63	1147363.37	624862.14	86.10	B-1161	B-1161	1147361.34	624854.27
57	1147234.91	624815.03	85.55	B-1162	B-1162	1147228.35	624798.04
56	1147170.58	624938.82	85.95	B-1163	B-1163	1147168.53	624936.34
112	1147039.33	624487.08	199.58	B-1164	B-1164	1147039.33	624487.08

Point #	Northing	Easting	Elevation	Description	Description	North	East
453	1147452.97	623961.56	203.40	B-1166	B-1166	1147457.80	623999.10
452	1147688.45	623467.78	202.20	B-1168	B-1168	1147701.00	623461.30
485	1147423.85	622953.71	223.29	B-1170	B-1170	1147423.70	622944.90
482	1146983.44	622538.70	249.49	B-1172	B-1172	1146981.70	622539.10
475	1146476.06	622228.06	225.81	B-1174	B-1174	1146576.52	622249.13
161	1145876.27	622195.21	221.48	B-1176	B-1176	1145876.50	622195.50
162	1145878.82	622196.80	221.51	B-1176A	B-1176A	1145876.50	622195.50
114	1144716.64	622232.17	226.78	B-1185	B-1185	1144712.61	622235.93
422	1144711.88	618818.88	277.51	B-1186	B-1186	1144711.23	618821.49
425	1144710.19	619259.61	277.68	B-1187	B-1187	1144711.23	619257.47
421	1144459.72	618997.50	279.98	B-1189	B-1189	1144461.65	619000.00
412	1144301.60	619490.75	260.30	B-1191	B-1191	1144302.74	619486.81
449	1144217.44	618840.90	243.17	B-1192	B-1192	1144215.60	618833.80
357	1144091.49	619277.79	254.11	B-1193	B-1193	1144089.10	619279.90
389	1147504.69	621630.15	199.35	B-1194	B-1194	1147505.20	621631.60
385	1147574.84	622478.35	220.60	B-1195	B-1195	1147574.40	622481.30
388	1147286.63	622017.51	217.52	B-1196	B-1196	1147286.60	622013.90
390	1146874.74	622003.82	245.60	B-1197	B-1197	1146872.90	622002.10
125	1142599.50	621799.64	218.40	B-3001	B-3001(DH)	1142600.00	621800.00
126	1142599.97	621872.49	218.89	B-3002	B-3002(DH)	1142600.00	621872.50
536	1142597.90	621878.80	218.83	B-3002A	B-3002A	TBD	TBD
124	1142599.85	621727.30	218.29	B-3003	B-3003(DH)	1142600.00	621727.50
300	1142447.42	621867.12	218.51	B-3004	B-3004	1142460.00	621849.00
284	1142717.58	621749.10	219.20	B-3005	B-3005	1142718.00	621750.00
122	1142425.58	621924.99	217.59	B-3006	B-3006	1142718.00	621876.50
156	1142718.50	621876.74	220.78	B-3007	B-3007	1142425.50	621925.00
135	1142425.35	621773.01	217.86	B-3008	B-3008	1142425.50	621773.00
123	1142484.48	621956.58	217.85	B-3009	B-3009	1142484.00	621957.00
297	1142634.86	622024.97	219.69	B-3010	B-3010	1142645.50	622025.00
154	1142776.68	622024.86	220.57	B-3011	B-3011	1142773.00	622025.00
119	1142772.53	621911.91	220.40	B-3012	B-3012	1142773.00	621912.00
286	1142842.89	621825.35	220.51	B-3013	B-3013(C)	1142843.00	621823.50
285	1142799.43	621748.55	220.26	B-3014	B-3014	1142831.00	621750.00
288	1142956.89	621823.95	221.78	B-3015	B-3015	1142957.00	621823.50
118	1142978.42	621913.43	222.48	B-3016	B-3016	1142996.50	621912.00
290	1143034.35	621749.86	222.10	B-3017	B-3017	1143035.00	621750.00
296	1142738.11	622115.75	219.80	B-3018	B-3018	1142738.00	622116.00
295	1142977.36	622167.48	222.42	B-3019	B-3019	1142975.50	622171.00
294	1142977.94	622074.78	222.44	B-3020	B-3020	1142975.50	622079.00
293	1143070.22	622033.23	223.19	B-3021	B-3021	1143069.00	622031.00
120	1143069.84	621873.43	223.86	B-3022	B-3022	1143069.00	621874.00
291	1143061.11	621679.90	222.81	B-3023	B-3023	1143062.00	621680.00
261	1142905.82	621399.65	220.16	B-3024	B-3024	1142904.57	621400.00
264	1142460.42	621425.34	218.21	B-3025	B-3025	1142460.00	621425.00
265	1142290.23	621403.73	215.76	B-3026	B-3026	1142290.00	621400.00
233	1142058.69	621423.26	218.80	B-3027	B-3027	1142148.00	621425.00
232	1141867.30	621408.76	220.12	B-3028	B-3028	1142000.00	621400.00
230	1141881.50	621803.88	220.13	B-3029	B-3029	1141874.00	621800.00
228	1141699.94	621799.67	221.99	B-3030	B-3030	1141675.00	621800.00
322	1141398.73	622042.01	222.70	B-3031	B-3031	1141400.00	622075.00
221	1141158.18	621709.53	220.05	B-3032	B-3032	1141125.00	621800.00
223	1141405.26	621715.21	222.26	B-3033	B-3033	1141400.00	621525.00

Point #	Northing	Easting	Elevation	Description	Description	North	East
225	1141399.76	621914.68	224.67	B-3034	B-3034	1141400.00	621800.00
283	1142729.18	621675.37	219.34	B-3035	B-3035	1142728.70	621676.00
136	1142441.55	621675.96	217.87	B-3036	B-3036	1142441.70	621676.00
289	1143057.42	621768.87	222.94	B-3037	B-3037	1143058.10	621769.50
231	1141882.97	621543.15	220.76	B-3038	B-3038	1141883.00	621542.00
287	1142917.72	621753.54	219.17	B-3039	B-3039	TBD	TBD
254	1142599.53	621000.20	218.88	B-4001	B-4001(DH)	1142600.00	621000.00
252	1142600.19	621072.22	219.06	B-4002	B-4002(DH)	1142600.00	621072.50
255	1142599.93	620927.13	218.99	B-4003	B-4003(DH)	1142600.00	620927.50
251	1142459.68	621046.56	218.45	B-4004	B-4004	1142460.00	621049.00
273	1142714.97	620948.74	221.13	B-4005	B-4005	1142718.00	620950.00
129	1142719.63	621076.36	220.98	B-4006	B-4006	1142718.00	621076.50
248	1142426.19	621125.28	217.90	B-4007	B-4007	1142425.50	621125.00
250	1142424.22	620973.78	218.08	B-4008	B-4008	1142425.00	620973.00
247	1142486.09	621156.86	217.91	B-4009	B-4009	1142484.00	621157.00
259	1142667.58	621249.04	219.09	B-4010	B-4010	1142645.50	621225.00
276	1142773.07	621236.36	219.08	B-4011	B-4011	1142773.00	621225.00
271	1142842.72	621020.31	222.24	B-4013	B-4013(C)	1142843.00	621023.50
272	1142831.99	620950.23	220.74	B-4014	B-4014	1142831.00	620950.00
270	1142773.04	621115.24	220.11	B-4015	B-4015	1142773.00	621112.50
149	1142996.39	621112.90	221.23	B-4016	B-4016	1142996.50	621112.50
275	1143034.80	620949.92	220.94	B-4017	B-4017	1143035.00	620950.00
260	1142735.45	621315.51	220.30	B-4018	B-4018	1142738.00	621316.00
280	1142975.89	621371.41	221.76	B-4019	B-4019	1142975.50	621371.00
279	1142969.39	621280.02	222.79	B-4020	B-4020	1142975.50	621279.00
533	1142973.73	621280.34	222.56	B-4020A	B-4020A	TBD	TBD
148	1143092.61	621247.38	224.55	B-4021	B-4021	1143069.00	621231.00
150	1143081.30	621073.52	220.71	B-4022	B-4022	1143069.00	621074.00
151	1143062.36	620879.81	220.71	B-4023	B-4023	1143062.00	620880.00
152	1142904.78	620601.81	223.80	B-4024	B-4024	1142904.57	620600.00
257	1142510.01	620625.03	220.80	B-4025	B-4025	1142510.00	620625.00
244	1142330.16	620597.72	221.54	B-4026	B-4026	1142330.00	620600.00
243	1142180.05	620633.45	217.73	B-4027	B-4027	1142148.00	620625.00
240	1141984.20	620587.77	219.57	B-4028	B-4028	1142000.00	620600.00
239	1141874.85	620699.95	220.28	B-4029	B-4029	1141874.00	620700.00
237	1141676.68	620698.48	222.35	B-4030	B-4030	1141675.00	620700.00
314	1141399.83	620975.03	222.13	B-4031	B-4031	1141400.00	620975.00
309	1141118.48	620794.64	220.24	B-4032	B-4032	1141125.00	620740.00
310	1141123.72	620794.66	220.22	B-4032A	B-4032A	TBD	TBD
306	1141398.11	620348.78	219.93	B-4033	B-4033	1141400.00	620365.00
311	1141375.68	620795.35	222.79	B-4034	B-4034	1141378.00	620719.00
274	1142729.08	620876.27	220.52	B-4035	B-4035	1142728.70	620876.00
258	1142457.21	620876.25	218.05	B-4036	B-4036	1142457.00	620876.00
406	1146177.05	621807.73	218.99	B-5001	B-5001	TBD	TBD
405	1146339.76	621808.33	241.53	B-5002	B-5002	TBD	TBD
401	1146386.61	621574.70	227.94	B-5003	B-5003	TBD	TBD
400	1146547.79	621568.38	236.61	B-5004	B-5004	TBD	TBD
354	1144134.10	619626.88	247.90	B-6002	B-6002	TBD	TBD
353	1143925.02	619422.80	229.76	B-6003	B-6003	TBD	TBD
352	1143718.15	619473.34	231.59	B-6004	B-6004	TBD	TBD
351	1143717.98	619873.77	242.59	B-6005	B-6005	TBD	TBD
337	1143069.79	620301.79	248.22	B-6006	B-6006	TBD	TBD

Point #	Northing	Easting	Elevation	Description
338	1142730.73	620301.79	222.28	B-6007
383	1145443.82	622676.36	240.11	B-6008
379	1144773.69	621748.18	246.04	B-6009
372	1143893.34	621059.21	263.39	B-6010
376	1144557.94	621261.73	244.00	B-6011
363	1144256.66	620480.54	194.20	B-6012
494	1143169.54	617234.87	251.14	B-6013
492	1143168.15	618281.46	209.79	B-6014
487	1143166.26	619317.85	221.52	B-6015
491	1142909.31	618366.55	204.66	B-6018
640	1142132.73	618344.49	163.94	B-6019
601	1142634.02	619555.91	221.48	B-6020
607	1142185.73	619103.41	209.80	B-6021
613	1142224.77	620040.33	216.23	B-6022
628	1141553.10	619177.88	202.77	B-6023
510	1141545.87	619997.72	216.07	B-6024
633	1140518.65	619189.73	172.69	B-6025
616	1140537.74	619900.15	215.46	B-6026
620	1145779.35	626145.09	96.65	B-6027
619	1145611.36	626062.41	95.70	B-6028
644	1147771.71	623966.62	85.41	B-6029
643	1147588.12	624222.62	88.37	B-6030
435	1144357.46	620185.46	265.76	C-1101ALT
375	1144424.00	621333.43	267.61	C-1102
380	1145011.61	622037.40	236.52	C-1103
460	1145601.77	622746.95	230.19	C-1104
465	1145483.00	623733.68	200.57	C-1105
457	1145533.96	624748.08	138.02	C-1106ALT
469	1147233.91	624202.32	211.92	C-1107
454	1147628.30	623753.23	200.89	C-1108
472	1147622.11	623171.88	209.79	C-1109
481	1147198.95	622740.32	242.39	C-1110
393	1146753.15	622346.15	250.69	C-1111
440	1142610.55	621726.54	218.37	C-3001
439	1142606.51	621872.75	218.89	C-3002
229	1141771.79	621801.62	221.38	C-3003
224	1141542.00	621807.33	223.25	C-3004
222	1141266.89	621792.33	221.27	C-3005
256	1142599.87	620918.51	218.87	C-4001
253	1142599.94	621063.82	219.08	C-4002
238	1141784.64	620708.48	221.16	C-4003
241	1141543.07	620597.67	219.99	C-4004
242	1141249.90	620593.96	220.01	C-4005
576	1144258.24	621799.94	279.61	ER-1103CL
580	1144706.50	621821.45	250.84	ER-1103N
591	1143809.08	621785.19	258.96	ER-1103S
590	1143823.00	621536.77	257.11	ER-1104CL
592	1143820.75	621986.25	257.44	ER-1104E
589	1143821.35	621086.95	258.33	ER-1104W
542	1146579.02	621622.05	243.09	ER-1105
543	1146866.31	621276.81	226.62	ER-1105
544	1146286.04	621961.60	226.63	ER-1105

Description	North	East
B-6007	TBD	TBD
B-6008	TBD	TBD
B-6009	TBD	TBD
B-6010	TBD	TBD
B-6011	TBD	TBD
B-6012	TBD	TBD
B-6013	TBD	TBD
B-6014	TBD	TBD
B-6015	TBD	TBD
B-6018	TBD	TBD
B-6019	TBD	TBD
B-6020	TBD	TBD
B-6021	TBD	TBD
B-6022	TBD	TBD
B-6023	TBD	TBD
B-6024	TBD	TBD
B-6025	TBD	TBD
B-6026	TBD	TBD
B-6027	TBD	TBD
B-6028	TBD	TBD
B-6029	TBD	TBD
B-6030	TBD	TBD

Point #	Northing	Easting	Elevation	Description	Description	North	East
545	1146706.48	621999.64	256.15	ER-1106			
559	1146039.75	621401.84	164.68	ER-1106			
560	1146365.63	621702.00	237.53	ER-1106			
520	1141404.39	621932.86	223.41	ER-3001			
521	1141104.51	621935.56	219.44	ER-3001			
522	1141704.88	621929.94	221.43	ER-3001			
518	1141220.32	621725.95	220.47	ER-3002			
519	1141206.51	622025.58	220.02	ER-3002			
525	1141200.00	622324.03	220.49	ER-3002			
312	1141375.68	620795.35	222.79	ER-4001			
513	1141133.24	620798.50	220.41	ER-4001			
514	1141583.32	620797.68	223.47	ER-4001			
515	1140683.32	620798.70	215.33	ER-4001			
313	1141375.68	620795.35	222.79	ER-4002			
506	1141796.43	620333.57	220.73	ER-4002			
509	1140897.17	620349.94	219.86	ER-4002			
508	1141346.76	620341.65	219.84	ER-4002CL			
315	1142180.05	620633.45	217.73	ER-4003			
504	1142049.90	620629.66	219.61	ER-4003			
507	1141575.77	620263.31	217.95	ER-4003			
505	1141813.06	620446.25	220.68	ER-4003CL			
528	1142060.89	621873.12	218.35	ER-4004			
529	1142060.45	621423.14	218.46	ER-4004			
530	1142057.75	620973.50	219.21	ER-4004			
553	1143195.74	623156.24	217.83	REMI-1101CL			
551	1143344.68	623156.02	218.60	REMI-1101N			
552	1143046.36	623156.23	217.87	REMI-1101S			
555	1143432.28	623846.88	217.84	REMI-1102CL			
556	1143433.70	623995.86	217.75	REMI-1102E			
554	1143431.62	623697.54	217.88	REMI-1102W			
267	1142620.86	621877.24	218.54	REMI-3001EAST			
266	1142620.58	621577.79	218.20	REMI-3001WEST			
268	1142620.95	621150.17	218.71	REMI-4001EAST			
269	1142624.08	620856.90	219.31	REMI-4001WEST			
584	1144312.49	621145.92	264.14	TP-B-1108			
577	1143967.31	621627.50	269.50	TP-B-1117			
596	1143591.74	620401.53	241.17	TP-B-1121			
593	1143603.70	621685.81	240.61	TP-B-1125			
539	1144634.18	622242.15	225.17	TP-B-1185			
573	1147500.59	621708.45	202.73	TP-B-1194			
568	1147648.39	622363.06	212.15	TP-B-1195			
565	1146874.40	622074.57	245.94	TP-B-1197			

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