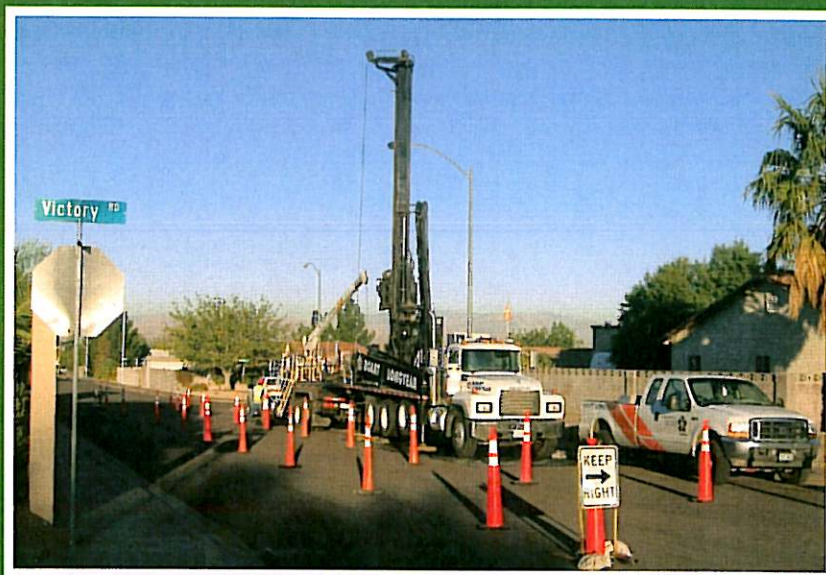




**DEEP BACKGROUND  
INVESTIGATION REPORT**  
Project No. 20072226V1  
November 19, 2007



Prepared for:  
Basic Remediation Company  
875 West Warm Springs Road  
Henderson, Nevada 89011

Prepared By:  
GES, Inc.  
7150 Placid Street  
Las Vegas, Nevada 89119







November 19, 2007  
Project No. 20072226V1

Mr. Ranajit Sahu, C.E.M., Ph.D.  
Basic Remediation Company  
875 West Warm Springs Road  
Henderson, Nevada 89011

PROVIDING

- Geotechnical Engineering
- Construction Materials Engineering
- Environmental Engineering
- Drilling Services

**RE: BRC Deep Background Investigation, Deep Soil Sampling, Henderson, Nevada**

Dear Dr. Sahu:

On July 30, 2007 Geotechnical and Environmental Services, Inc. (GES) implemented a sampling plan and monitor well installation as described in the ***Revised Work Plan for Determination of Deep Quaternary Alluvium and Upper Muddy Creek Formation Background Soil Chemistry and Upgradient Alluvial Aquifer Conditions BMI Common Areas and Complex Vicinity, May 30, 2007***. This activity report details the scope of services performed, which consisted of the following:

- Mark-out twenty-one (21) borehole locations based on GPS coordinates provided by D.B. Stevens.
- USA Underground Alert notification and utility locate.
- Contract sonic drill rig and associated equipment and crew from Boart Longyear.
- July 30 – October 20, 2007: Drill twenty-one (21) boreholes, collect soil samples at predetermined depth intervals, collect additional quality control soil samples and equipment rinsate samples.

GES Collected soil samples from twenty-one (21) boring locations and a total of two hundred and seventy six (276) depth intervals throughout the site. From these samples, 121 sample intervals were placed on "hold" at the request of the client (Basic Remediation Company (BRC)) and retained by STL laboratory. Sample depths consisted of 0 – 0.5 feet, 4.0 – 6.0 feet, and 9.0 – 11.0 feet, 19.0 – 21.0 feet and continued at ten (10) foot intervals to the geological contact between the recent alluvium (Qal) and the Tertiary Muddy Creek Formation (TMC). A soil sample was also collected from each boring at approximately 10.0 feet and 20.0 feet above and below the Muddy Creek formation contact, where encountered. Duplicate samples were taken approximately every 10<sup>th</sup> sample, while MS/MSD samples and equipment rinsate samples were collected every 20<sup>th</sup> sample.

A total of 8 rinsate samples were taken throughout the sampling event based on the frequency discussed in the sampling workplan.

GES's scope of services was to implement the sampling workplan so that others can evaluate the data resulting from our sampling efforts. Therefore, this report does not provide the analytical results.

### **Background**

Prior to starting the drilling program 33 boring locations were designated at locations based on surface soil types and other parameters such as accessibility, and numbered DBSA 1 through DBSA 33. The number of drilling locations was then reduced to 21 for statistical purposes. However, the previously designated boring numbers were not changed or re-numbered. Therefore, gaps in the final boring numbers remained where some boring locations were eliminated. For example, DBSA 16 was eliminated, so the final boring locations skip from DBSA 15 to DBSA 17.

The drilling program started with boring locations DBSA 1, 2, and 3. These borings were advanced to depths ranging from 80.5' bgs to 90.5' bgs. Neither ground water or the geological contact between the Qal/TMC were encountered in these boreholes.

Establishing the depth of the contact between the Qal/TMC and ground water was an important objective of the project. After evaluating the data obtained from DBSA 1, 2, and 3, the Client (BRC) determined that the potential for encountering ground water and/or the Qal/TMC geological contact was more likely at the northeast portion of the project area. Drilling continued at borings DBSA 32 and DBSA 27 using Eagle Drilling Services, LLC. These borings were advanced to a maximum depth of 102' bgs. Ground water was encountered at 66.1' bgs in DBSA 32. No ground water was encountered in DBSA 27. The TMC/Qal geological contact was identified at approximately 94' in DBSA 32 and at approximately 92' bgs in DBSA 27. It should be noted that the contacts between the Qal/TMC were gradational.

On August 14, 2007, the drilling program was stopped while the data was evaluated. On August 16, 2007, the client indicated that drilling will continue (e-mail communication), but with the following modifications to the work plan:

- Drilling will proceed using a sonic drill rig
- The maximum depth of the borings will be increased to 160' bgs
- Soil samples collected between 50' bgs and 20' above the geological contact of the Qal/TMC will be placed on "Hold" and retained by STL laboratory.

The drilling program resumed on September 17, 2007 with drilling services and a sonic drill rig provided by Boart Longyear. The sequence of drilling locations proceeded from northeast to southwest across the project area at boring locations DBSA 33, 30, 29, 26, and 23.

While the drilling program continued, it became evident that the sonic drill rig may not be available for an extended period of time. Therefore, the priority of the drilling locations order was reviewed.

On September 27, 2007, it was determined by the client (e-mail communication) that the order for the remaining drilling locations should be based on the locations most likely to encounter ground water and/or the geological contact of the Qal/TMC. Based on the borings completed by this time, the locations most likely to provide data for the Qal/TMC contact and/or encounter ground water would be at lower topographic elevations. Therefore the order of borings continued at locations with the lowest topographic elevations and proceeded to the highest elevations until the borings were completed. The remaining borings were completed in the following order: DBSA 21, 20, 17, 15, 11, 14, 9, 10, 8, 13, and 4.

The drilling program was completed on October 20, 2007.

#### **Field Investigation Methodology**

Samples were collected using Eagle Drilling Services, LLC at five (5) locations using Hollow Stem Auger methods. Soil samples were obtained using a Split-Spoon sampler fitted with 2.5-inch by 6-inch stainless steel sleeves. The sampler was advanced into the soil sampling interval using a 140 lb hammer attached to a wire-line and dropped an average of 30 inches per blow.

The samples were collected in stainless steel sleeves. Five sleeves were collected for each sampling interval, except where the work plan Quality Assurance/Quality Control procedure required duplicate samples or MS/MSD samples. All samples were labeled, sealed with Teflon sheets, capped, and stored in coolers with ice. The samples were submitted under chain of custody to Severn-Trent Laboratory for chemical analyses.

Soil samples were obtained from sixteen (16) borings using the using the rotary-Sonic method (sonic drill rig). The sonic drill rig was outfitted with 6-inch outside diameter core-sampler fitted with a carbide-tipped sample shoe. The core-sampler advanced in 5-foot runs which were subdivided into two 2 1/2 foot samples. The soil samples were collected from the 2 1/2 foot runs using a clean stainless steel scoop and placed in a clean stainless steel bowl for compositing. At each sample location and depth interval, the samples were collected in clean glass jars provided by the laboratory. Rinsate samples were collected in glass bottles and poly bottles also provided by the laboratory. All samples were labeled and stored in coolers on ice.

Also, rinsate and ground water samples were collected, stored, and shipped as described above.

Where ground water was encountered, the same set of analytes were submitted for chemical analyses at STL laboratories, but, in addition, 40 ml samples ("VOAs") from the



ground water sampling were submitted to Alpha Laboratories in Las Vegas to be tested for organic acids.

Some of the samples were further subdivided at the STL laboratory in St. Louis, Missouri, for shipping to other STL laboratories based on the specific analysis required.

#### **Classification and Nomenclature**

All borings locations were labeled as "DBSA (Boring #)". Soil samples were logged according to the USCS Classification by a qualified Geologist.

Each sample was provided a unique sampling number with the following designation: Sample-Location, "Q" (Quaternary Alluvium) or "T" (Tertiary Muddy Creek Formation), Depth Interval, GES Project number, Time, and Date. For example, the first sampling location was identified as DBSA 1-Q-5, 8/6/07, 20072226V1, 1000, and at the 10-foot depth as DBSA 1-Q-10, 8/06/07, 20072226V1, 1030. If the sample was collected from the Muddy Creek Formation, the sample identification changed only by replacing the "Q" with a "T". Quality control samples had extensions added of "FD" or "MS/MSD". The soil samples were stored in coolers with ice and shipped daily via FedEx to Severn Trent Laboratories (STL Earth City, Missouri; Irvine and Ontario, California). Samples collected for Organic acid analysis in ground water were submitted to Alpha Laboratory in Las Vegas.

#### **Air/Soil Monitoring**

The soil from each sample interval was field screened for volatile organic compounds (VOCs) using photoionization detector probes (10.6 eV and 11.7 eV) (PID). In addition, each sample was examined for odors and stains. No odors or stains indicating contamination of the soil was observed. The PID results are shown on the boring logs (Appendix A, Figures 4 through 10).

Tailgate safety meetings were performed at the start of each day. The health and safety monitoring effort complied with the ***BRC Health and Safety Plan, October, 2005***. Soil samples and the breathing zone were monitored by two photoionization detector probes (10.6 eV and 11.7 eV) by GES personnel. The photoionization detectors were calibrated on a daily basis using 100 ppm isobutylene gas. Low levels of volatile compounds (0.5 ppmV or lower) were detected by the PIDs only at a few shallow sample intervals.

#### **Decontamination Procedures**

The drilling equipment and all downhole equipment were decontaminated prior to initial usage and then between each borehole location. Decontamination of drilling equipment consisted of high pressure washing prior to initial boring. All downhole equipment was washed between borehole locations by scrubbing with a wash consisting of commercially available distilled water and laboratory grade Liquinox detergent. The detergent scrubbing was followed by two rinses using commercially available distilled water. Equipment was then allowed to air dry.

### **Investigative Derived Waste (IDW)**

All Investigative Derived Waste (IDW) consisted of drilling cuttings (soil) and equipment decontamination waste (laboratory grade Liquinox detergent and rinse water). Soil was placed in steel 17H DOT 55-gallon drums, closed, labeled, and transported to a storage area on the BRC property near Pabco Road and Warm Springs Road.

### **Borehole Abandonment**

Where ground water was encountered, boreholes were abandoned in accordance with Nevada Revised Statutes (NRS) 534.020, 534.110. The boreholes were backfilled with bentonite chips and the chips were hydrated in order to seal the borehole. If no ground water was encountered, the boreholes were abandoned using the clean drill cuttings. Many of the drilling locations were in paved roads which required cutting the asphalt prior to drilling. All locations where the asphalt was cut were patched with quick setting asphalt to an equal thickness (or greater) than the original asphalt surface and compacted.

### **Permits/Traffic Control**

GES obtained an encroachment permit (excavation permit) from the City of Henderson, Nevada. The encroachment was required for drilling work in street right-of-ways within the City of Henderson. The encroachment permit was updated as necessary.

GES also obtained traffic control plans and equipment set up services from Advanced Traffic Safety. Traffic control plans and equipment set was required by the City of Henderson for drilling work within the paved portion of the street right-of-ways. The traffic control plans were re-submitted to the city of Henderson for extending the effective dates as necessary.

### **Changes to Original Planned Work**

During this work the original scope of services was modified and the changes consisted of the following:

- The maximum borehole depth was increased from 85 feet bgs to 160 feet bgs. The change was implemented after boring locations DBSA 1, 2, and 3 were completed. The original work plan anticipated that the contact between the recent alluvium (Qal) and the Muddy Creek Formation (TMC) would range between 50 feet and 65 feet bgs. However, borings DBSA 1, 2 and 3 did not encounter ground water or the contact. The change was determined to be necessary in order to improve the likelihood of encountering ground water and the Muddy Creek Formation.
- Location DBSA 8 was moved from Van Wagenen Street to West Basic Street. The change was necessary due to restrictive work hours (4 hours per day) permitted by the City of Henderson for Van Wagenen Street.
- Samples were collected at the surface at some locations for analysis of organochlorine pesticides. This was requested by BRC at the start of the project. However, the surface samples could not be collected in some locations due to disturbed soil conditions or pavement.

We appreciate this opportunity to provide our professional services. If you have questions or comment, feel free to contact our office at (702) 365-1001.

Sincerely,

**Geotechnical & Environmental Services, Inc.**



Richard A. Cooke, CEM  
Project Geologist



Kyle S. Hansen  
Environmental Program Manager

kd

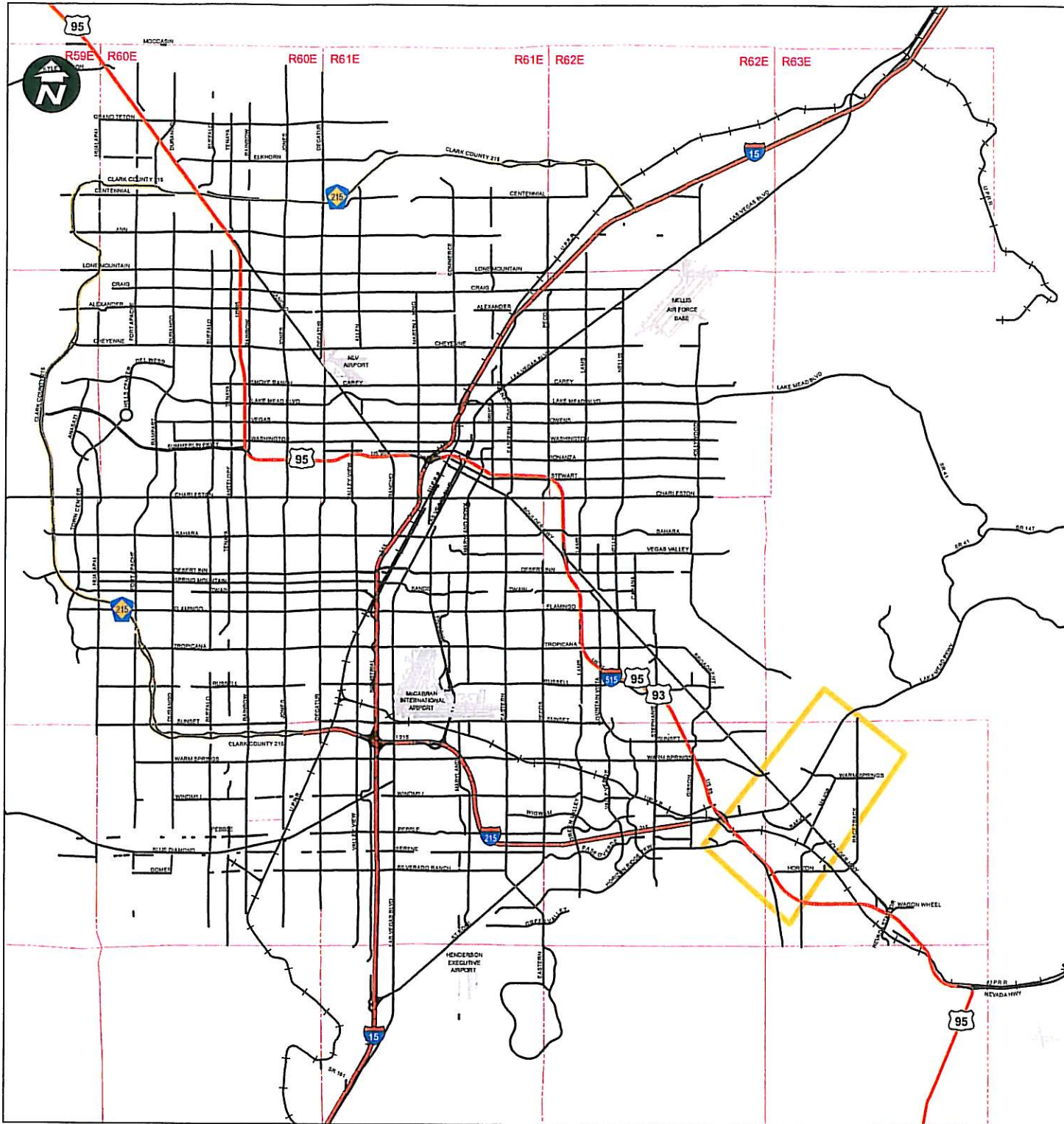
Enc.:    Figures 1 and 2  
         Boring Logs (21)  
         Chain-of-Custody Records (29)  
         Tailgate Safety Meeting Forms (25)

Dist:    1 original mailed to addressee  
         1 copy e-mailed to addressee at [sahuron@earthlink.com](mailto:sahuron@earthlink.com)  
         1 cc to project file



## **APPENDIX A**

### **FIGURES**



#### Legend

- Major Street Centerlines — I 215
- Streets — UP RR
- Highways & Railroads — UP RR HEND SPUR
- CLARK COUNTY 215
- I 15
- US 93
- US 95
- Township & Range
- Approximate Site Boundary

0 1 2 4 6 8 Miles

NOTE: Data presented on this map is a compilation of GIS Metadata extracted from a variety of sources. Major Streets, Airports, and Railroads is data obtained from the Southern Nevada GIS Management Office. This data is downloaded by GES for incorporation into drawings generated by GES. Data contained within this page is to be used for informational purposes only. GES has not modified the data contained herein and uses it as it is acquired from the respective agency.

### Vicinity Map Deep Background Investigation BRC

Drawn By: <b>RAC</b>	Date Drawn: <b>11/13/07</b>
Project No. <b>20072226V1</b>	Figure No. <b>1</b>

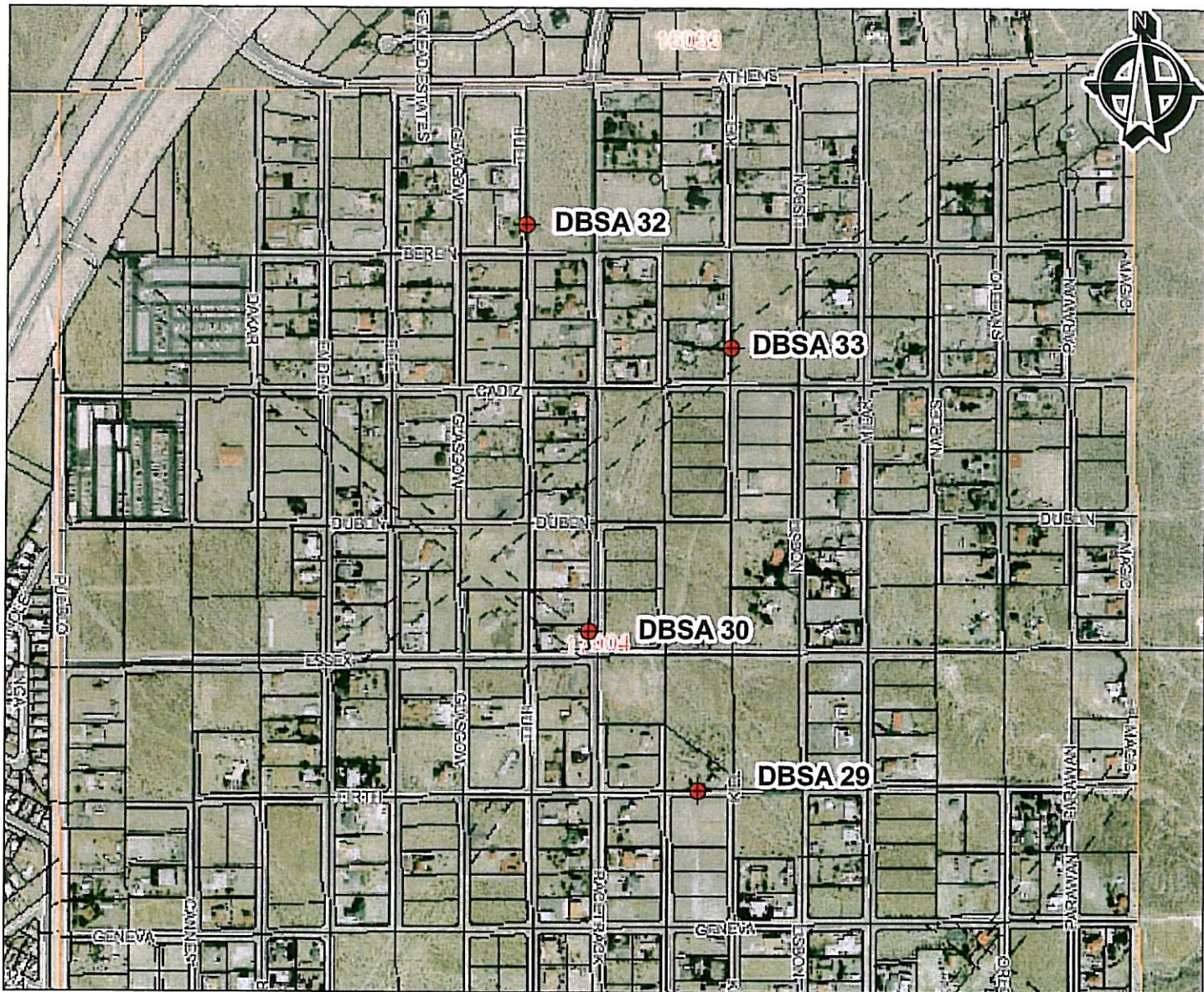


**GEOTECHNICAL &  
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SERVICES, INC.**

7150 Placid St.  
Las Vegas, NV 89119

702-365-1001  
www.gesnevada.com





## Legend

 Boring Location



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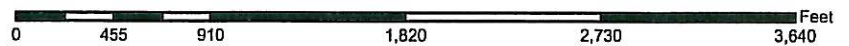
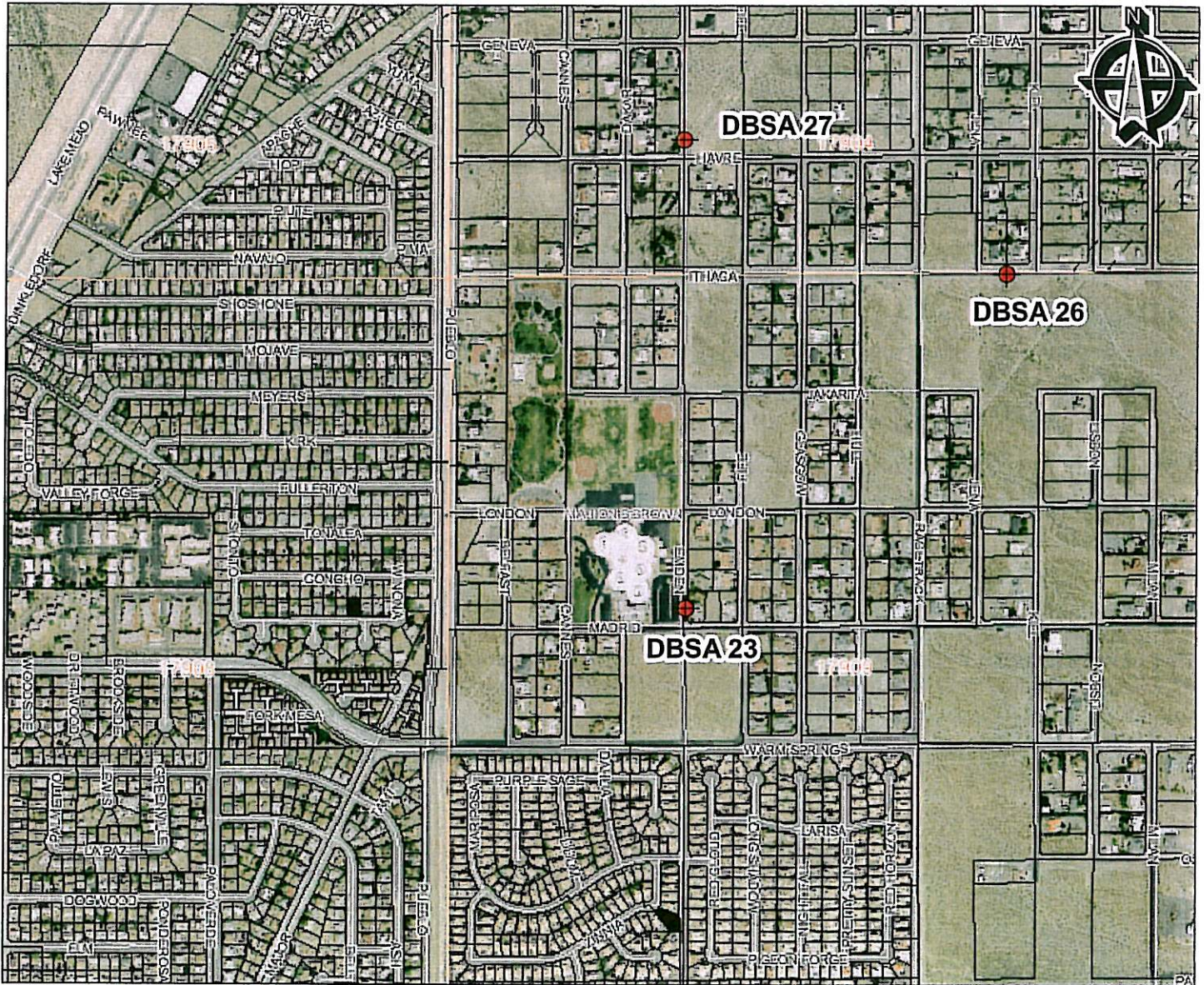
7150 Placid St.  
Las Vegas, NV 89119  
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NOTE: Data presented on this map is a compilation of GIS Metadata extracted from a variety of sources. Major Streets, Freeways, Mapped Washes and Clark County mapped faults is all data obtained from the Southern Nevada GIS Management Office. This data is downloaded by GES for incorporation into drawings generated by GES. Data contained within this page is to be used for informational purposes only. GES has not modified the data contained herein and uses it as it is acquired from the respective agency.

## Exploration Location Map BRC Deep Background Investigation

Drawn By: RAC	Date Drawn: 11/13/07
Project No. 20072226V1	Figure No. 2





## Legend

 Boring Location



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## Exploration Location Map BRC Deep Background Investigation

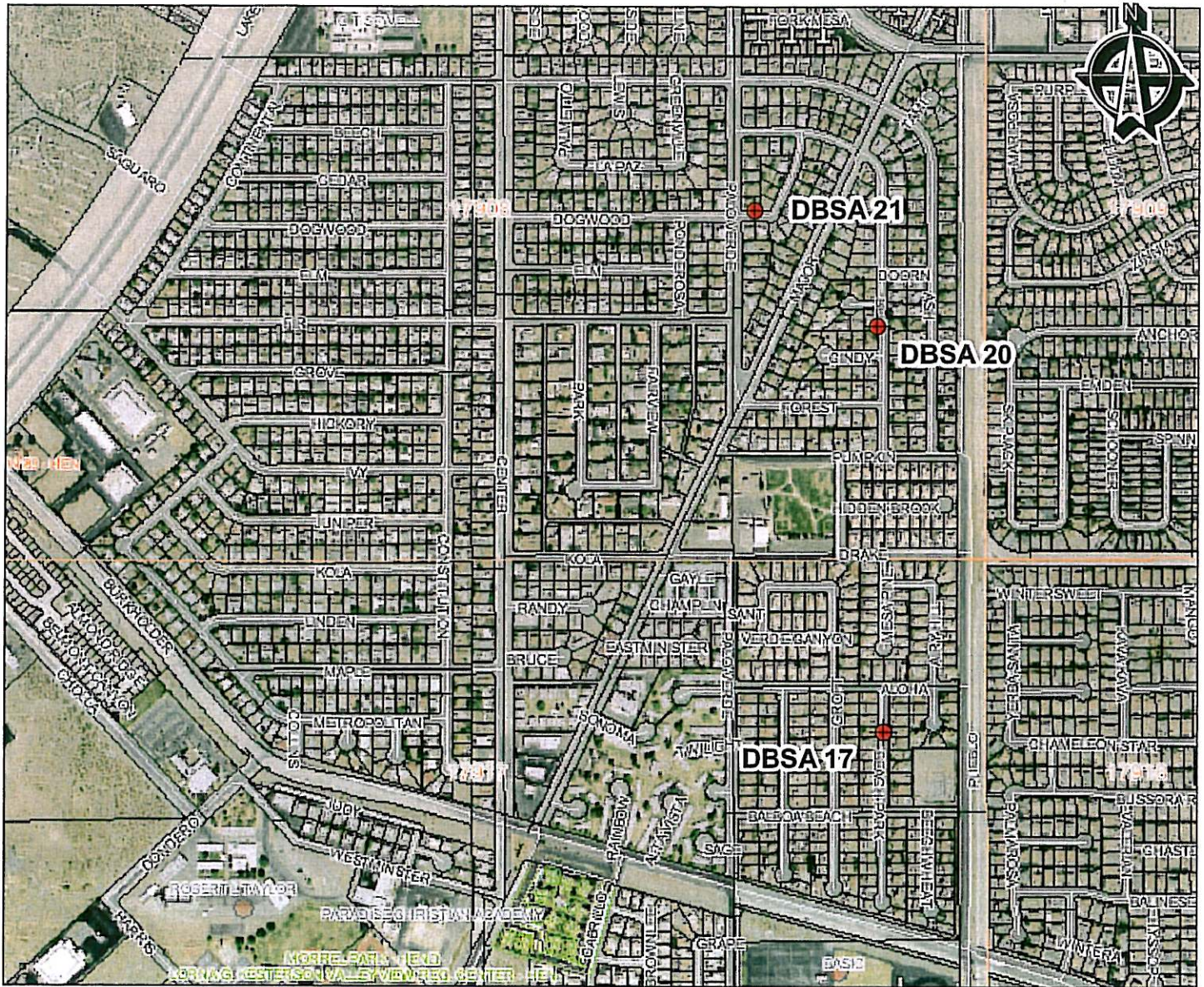
Drawn By:  
RAC

Project No.  
20072226V1

Date Drawn:  
11/13/07

Figure No.  
2a





1,600 800 0 1,600 Feet

## Legend

 Boring Location



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## Exploration Location Map BRC Deep Background Investigation

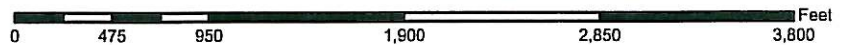
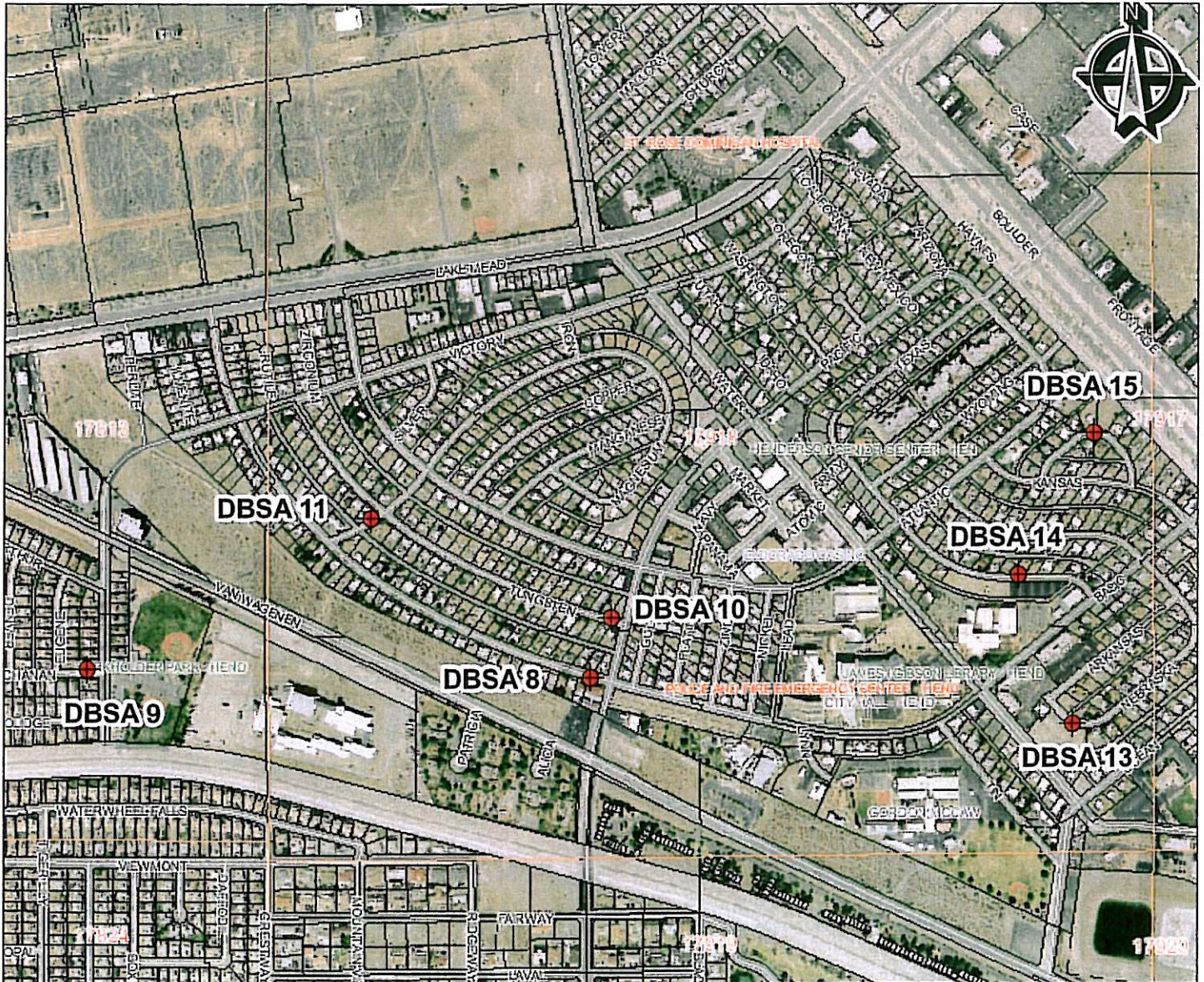
Drawn By:  
RAC

Project No.  
20072226V1

Date Drawn:  
11/13/07

Figure No.  
2b





## Legend

 Boring Location



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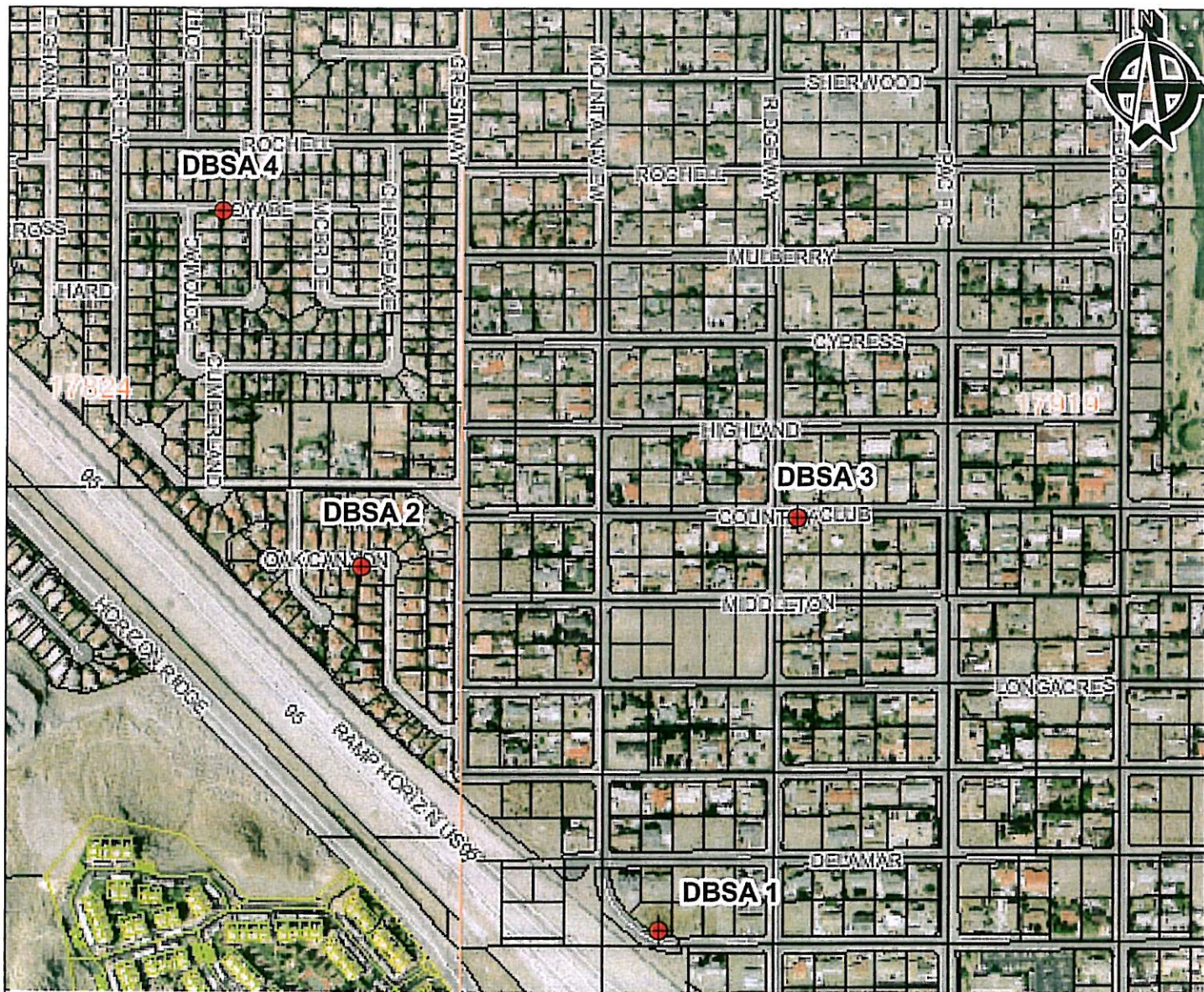
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## Exploration Location Map BRC Deep Background Investigation

Drawn By: <b>RAC</b>	Date Drawn: <b>11/13/07</b>
Project No. <b>20072226V1</b>	Figure No. <b>2c</b>

J:\Jobs\20072226V1\GIS\Figure2c





## Legend

 Boring Location



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## Exploration Location Map BRC Deep Background Investigation

Drawn By:  
RAC

Date Drawn:  
11/13/07

Project No.  
20072226V1

Figure No.  
2d

J:\Jobs\20072226\1\GIS\Figure2d



# KEY TO SYMBOLS AND TERMS

Terms used according to the Unified Soil Classification System

## Consistency or Condition of Soils

**Fine-Grained Soils (Silt and Clay):** Major portion passing #200 sieve

California Sampler* (blows/foot)	SPT** (blows/foot)	Estimated Consistency	Unconfined Compressive Strength (tsf)	Manual Manipulation
< 2	< 2	Very Soft	< 0.25	Thumb will penetrate soil more than 1 in.
2-5	2-4	Soft	0.25-0.50	Thumb will penetrate soil about 1 in.
5-10	4-8	Firm	0.50-1.00	Thumb will penetrate soil about ¼ in.
10-20	8-15	Stiff	1.00-2.00	Thumb will not indent soil but readily indented with thumbnail.
>20	>15	Very Stiff	>2.00	Thumbnail will not indent soil.

\*ASTM D 3550 using a 140-pound hammer falling 30 inches.

\*\*ASTM D 1586

**Coarse-Grained Soils (Sand and Gravel):** Major portion retained on #200 sieve

California Sampler* (blows/foot)	SPT** (blows/foot)	Estimated Consistency	Behavior of ½-inch Diameter Probe Rod
0-7	0-4	Very Loose	Easily penetrated when pushed by hand.
7-18	4-10	Loose	Firmly penetrated when pushed by hand.
18-50	10-30	Medium Dense	Easily penetrated when driven by 1 lb. hammer.
50-90	30-50	Dense	Penetrated less than 1 inch when driven with a 1 lb. hammer.
>90	>50	Very Dense	Penetrated less than ¼ inch when driven with a 1 lb. hammer.




\*ASTM D 3550 using a 140-pound hammer falling 30 inches.

\*\*ASTM D 1586

Cementation	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

**Caliche and Cemented Sand and Gravel:** Materials classified as medium hard, hard, or very hard caliche or cemented sand and gravel should be treated as rock per Appendix K of the Southern Nevada Amendments to the 2000 International Building Code, published February 11, 2003.

## Misc. Symbols

-  Exploration continues
-  Initial groundwater depth
-  Final groundwater depth

## Constituent Percentages

- Trace - < 5%
- Few - 5 to 10%
- Little - 15-25%
- Some - 30-45%
- Mostly - 50-100%












## Moisture Condition

- Dry - Absence of moisture, dusty, dry to the touch
- Moist - Damp but no visible water
- Wet - Visible free water, usually soil is below water table






## Notes

- Subsurface explorations were performed using the equipment listed on the exploration logs.
- Subsurface explorations were performed on the date(s) shown on the exploration logs.
- Soil sampler(s) were driven with a 140 pound hammer falling 30 inches (unless otherwise noted in the text of this report).
- The transitions between soil types shown on the exploration logs as occurring abruptly at particular depths may in actuality be a gradual progression from one soil type to the next.
- Exploration logs are subject to the limitations, conclusions, and recommendations presented in this report.

## Strata Group Symbols

-  Fill
-  CL - Low plasticity clay
-  CH - High plasticity clay
-  ML - Silt
-  MH - Elastic Silt
-  SP - Poorly graded sand
-  SW - Well - graded sand
-  GP - Poorly graded gravel
-  GW - Well - graded gravel
-  Cemented sand and gravel
-  Caliche

## Soil Sampler Symbols

-  Bulk Sample
-  Sample from auger cutting
-  California Sampler
-  Standard Penetration test
-  Shelby tube



## Disclaimer

This Key to Symbols is part of a report prepared by Geotechnical & Environmental Services, Inc. and should be used with the report. The descriptions on the exploration logs apply only at the specific exploration locations and at the time the explorations were made. They are not warranted to be representative of subsurface conditions at other locations or times.

**Figure No. A-3**

## **APPENDIX B**

### **BORING LOGS**



# EXPLORATION LOG DBSA-1

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 8/6/07

EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER

EQUIPMENT: DIEDRICH D-120 DRILL RIG

ELEVATION: EXISTING GROUND SURFACE

LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		PAVE	Dark gray ASPHALT 3" thick.						
		FILL	Reddish brown (5 YR 5/4) silty GRAVEL with sand, moist. Gravel is well-graded angular, and consists of 100% andesite. Sand is well-graded, subangular, with 80% felsics, 20% mafics. Approximately 55% gravel, 20% silt, 25% sand.						
2.5		GM	Reddish brown (5 YR 5/4) silty GRAVEL with sand, moist and dense.						
5			...boring cleared with air knife to 5.0'; switch to 4' coring sleeves due to hard soils. ...same soil as above, sample DBSA-1-Q-05, Pid's: 10.6 eV = 0.5 ppmv, 11.7 eV = 1.6 ppmv.						
7.5									
10		SM	Reddish yellow (5 YR 6/6) silty SAND with gravel, moist and very dense. Sand is subangular to subrounded, well-graded, 10% mafics, 90% felsics. Gravel is subangular, poorly graded, consists of 100% latite. Approximately 20% gravel, 20% silt, 60% sand. Sample DBSA-1-Q-10, Pid's: 10.6 eV = 0.5 ppmv, 11.7 eV = 0.0 ppmv.						
12.5									
15									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 4

# EXPLORATION LOG

## DBSA-1

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

**BORING LOCATION: SEE FIGURE 2**

**EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER**

**ELEVATION:** EXISTING GROUND SURFACE

**PROJECT NO.:** 20072226V1

**EXPLORATION DATE:** 8/6/07

EQUIPMENT: DIEDRICH D-120 DRILL RIG

LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

**FINAL DEPTH TO WATER:** NOT ENCOUNTERED

**DATE MEASURED:** N/A

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <div style="position: relative; height: 100px; border-left: 1px solid black; border-right: 1px solid black;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 10px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> <div style="position: absolute; top: 0; left: 0; right: 0; height: 10px; background: repeating-linear-gradient(-45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> <div style="flex: 1; text-align: center;"> <div style="position: relative; height: 100px; border-left: 1px solid black; border-right: 1px solid black;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 10px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> <div style="position: absolute; top: 0; left: 0; right: 0; height: 10px; background: repeating-linear-gradient(-45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> </div> <div style="display: flex; flex-direction: column; justify-content: space-between; margin-top: 10px;"> <span>17.5</span><span>20</span><span>22.5</span><span>25</span><span>27.5</span><span>30</span> </div>			<p>...sample DBSA-1-Q-20, Pid's: 10.6 eV = 0.5 ppmv, 11.7 eV = 0.0 ppmv. Strong iron oxide staining.</p>						
		SM	<p>Reddish brown (5 YR 5/4) silty SAND, few gravel, moist and very dense. Sand is subangular, well-graded, 30% mafics, 70% felsics. Gravel is angular, poorly graded, with 20% rhyolite, 40% latite, 40% basalt/andesite. Approximately 10% gravel, 30% silt, 60% sand. Sample DBSA-1-Q-30, Pid's: 10.6 eV = 0.8 ppmv,</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 4

# EXPLORATION LOG

## DBSA-1

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

**BORING LOCATION: SEE FIGURE 2**

**EXPLORATION SIZE (dia.):** 6" O.D. H.S. AUGER

**ELEVATION:** EXISTING GROUND SURFACE

**PROJECT NO.:** 20072226V1

**EXPLORATION DATE:** 8/6/07

EQUIPMENT: DIEDRICH D-120 DRILL RIG

LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

**DATE MEASURED:** N/A

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div> <div>32.5</div> <div>35</div> <div>37.5</div> <div>40</div> <div>42.5</div> <div>45</div> <div>47.5</div> </div>			<p>11.7 eV = 0.0 ppmv.</p> <p>...same soil as above, sample DBSA-1-Q-40, Pid's: 10.6 eV = 0.3 ppmv, 11.7 eV = 0.0 ppmv.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

**Figure No. 4**

# EXPLORATION LOG DBSA-1

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 8/6/07

EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER

EQUIPMENT: DIEDRICH D-120 DRILL RIG

ELEVATION: EXISTING GROUND SURFACE

LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50			...same soil as above, sample DBSA-1-Q-50, Pid's: 10.6 eV = 0.4 ppmv, 11.7 eV = 0.0 ppmv.						
52.5									
55									
57.5									
60			...same soil as above, sample DBSA-1-Q-60, Pid's: 10.6 eV = 0.3 ppmv, 11.7 eV = 0.0 ppmv.						
62.5									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 4



# EXPLORATION LOG

## DBSA-1

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

**BORING LOCATION: SEE FIGURE 2**

**EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER**

**ELEVATION:** EXISTING GROUND SURFACE

**PROJECT NO.:** 20072226V1

**EXPLORATION DATE:** 8/6/07

**EQUIPMENT:** DIEDRICH D-120 DRILL RIG

LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

FINAL DEPTH TO WATER: NOT ENCOUNTERED

**DATE MEASURED:** N/A

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div> <div>65</div> <div>67.5</div> <div>70</div> <div>72.5</div> <div>75</div> <div>77.5</div> <div>80</div> </div>			<p>...same soil as above, sample DBSA-1-Q-70, Pid's: 10.6 eV = 0.4 ppmv, 11.7 eV = 0.0 ppmv.</p> <p>...same soil as above, sample DBSA-1-Q-80, Pid's: 10.6 eV = 0.1 ppmv, 11.7 eV = 0.0 ppmv.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

**Figure No. 4**

# EXPLORATION LOG

## DBSA-1

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

**BORING LOCATION: SEE FIGURE 2**

**EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER**

**ELEVATION:** EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1

EXPLORATION DATE: 8/6/07

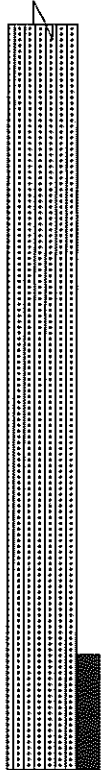
**EQUIPMENT:** DIEDRICH D-120 DRILL RIG

LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/ADATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div> <div>82.5</div> <div>85</div> <div>87.5</div> <div>90</div> <div>92.5</div> <div>95</div> </div> 			<p>...same soil as above, sample DBSA-1-Q-90, Pid's: 10.6 eV = 0.4 ppmv, 11.7 eV = 0.0 ppmv.</p>						
			END OF BORING AT 90.5 FEET						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

**Figure No. 4**



# EXPLORATION LOG DBSA-2

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 8/7/07

EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER

EQUIPMENT: DIEDRICH D-120 DRILL RIG

ELEVATION: EXISTING GROUND SURFACE

LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		PAVE	Dark gray ASPHALT 2.5" thick.						
		FILL	Light brown (7.5 YR 6/3) silty GRAVEL with sand, moist.						
2.5		GM	Reddish brown (5 YR 5/4) silty GRAVEL with sand, moist and very dense.  ...boring cleared with air knife to 5'. ...cobble.						
5		SM	Reddish brown (5 YR 5/4) silty SAND with gravel, moist and very dense. Sand is subangular, well graded with 20% mafics (basalt/andesite), 80% felsics. Gravel is angular, 80% rhyolite, 20% andesite and basalt. Approximately 15% silt, 20% gravel, 65% sand. Sample DBSA-2-Q-5. PIDs: 10.6, 11.7 eV = 0.0 ppmV.  ...same soil as above, sample DBSA-2-Q 10. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
7.5									
10									
12.5									
15									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 5

# EXPLORATION LOG DBSA-2

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 8/7/07

EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER

EQUIPMENT: DIEDRICH D-120 DRILL RIG

ELEVATION: EXISTING GROUND SURFACE

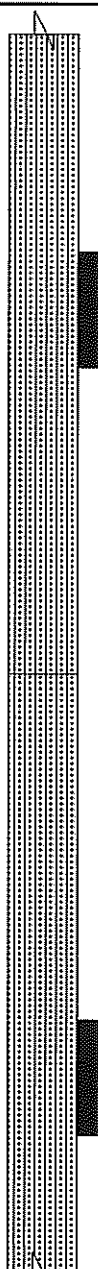
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5 20 22.5 25 27.5 30			<p>...same soil as above, sample DBSA-2-Q 20 and DBSA-2-Q-20-FD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...alternating hard and soft layers.</p>						
		SM	<p>Reddish brown (5 YR 5/4) silty SAND, moist, moderately cemented and very dense. Sand is subangular to subrounded, well-sorted with 40% mafics (andesite and basalt), 60% felsics. Gravel is angular, poorly graded, has 40% andesite, 30% rhyolite, 30% latite. Approximately 20% silt, 10% gravel, 70% sand.</p> <p>...moderately to strongly cemented with alternating layers of 4"-6" thick of cemented and uncemented soils, sample DBSA-2-Q-30. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 5



# EXPLORATION LOG DBSA-2

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 8/7/07

EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER

EQUIPMENT: DIEDRICH D-120 DRILL RIG

ELEVATION: EXISTING GROUND SURFACE

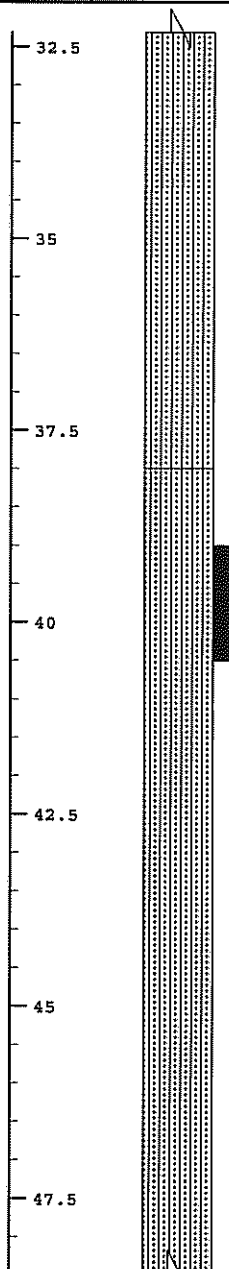
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5									
35									
37.5									
40		SM	Reddish brown (% YR 5/4) silty SAND with gravel, moist, weakly cemented (in layers) and very dense. Sand is subangular to subrounded, well-graded, consists of 40% mafics (basalt and andesite), 60% felsics. Gravel is angular, poorly graded with 20% basalt (with epidote crystals), 20% andesite, 30% rhyolite, 30% latite. Approximately 20% silt, 20% gravel, 60% sand. ...same soil as above, sample DBSA-2-Q 40. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
42.5									
45									
47.5									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 5

# EXPLORATION LOG

## DBSA-2

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

**BORING LOCATION: SEE FIGURE 2**

**EXPLORATION SIZE (dia.):** 6" O.D. H.S. AUGER

**ELEVATION:** EXISTING GROUND SURFACE

**PROJECT NO.:** 20072226V1

**EXPLORATION DATE:** 8/7/07

EQUIPMENT: DIEDRICH D-120 DRILL RIG

LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

FINAL DEPTH TO WATER: NOT ENCOUNTERED

**DATE MEASURED:** N/A

**DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <div style="position: relative; height: 100px; border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 10px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> </div> <div style="flex: 1; padding-left: 10px;"> <div style="position: relative; height: 100px; border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 10px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> </div> </div>			<p>...same soil as above except: interbeds of silty SAND and silty SAND with PIDs: 10.6, 11.7 eV = 0.0 ppmV. gravel, moderately cemented in 0.5" to 1.0" thick layers. Sample DBSA-2-Q-50.</p>						
<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <div style="position: relative; height: 100px; border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 10px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> </div> <div style="flex: 1; padding-left: 10px;"> <div style="position: relative; height: 100px; border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 10px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> </div> </div>			<p>PIDs: 10.6, 11.7 eV = 0.0 ppmV....same soil as above, moderately to strongly cemented to 65', strong iron oxide staining. Sample DBSA-2-Q-60.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

**Figure No. 5**



# EXPLORATION LOG DBSA-2

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

BORING LOCATION: SEE FIGURE 2

EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER

ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1

EXPLORATION DATE: 8/7/07

EQUIPMENT: DIEDRICH D-120 DRILL RIG

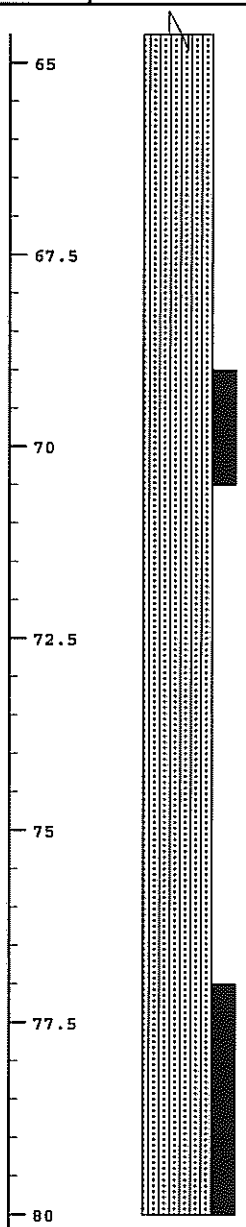
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65			...same soil as above, basalt cobble in sampler shoe. Sample DBSA-2-Q-70. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
67.5									
70									
72.5									
75									
77.5			...consists of alternating zones of cemented and uncemented soils, gravel clasts consist of latite, andesite, and basalt. Samples DBSA-2-Q-80 and DBSA-2-Q-80 MS/MSD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
80			END OF BORING AT 80.0 FEET						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 5

# EXPLORATION LOG DBSA-3

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 8/8/07

EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER

EQUIPMENT: DIEDRICH D-120 DRILL RIG

ELEVATION: EXISTING GROUND SURFACE

LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		PAVE	Dark gray ASPHALT 3" thick.						
		FILL	Light brown (7.5 YR 6/3) silty GRAVEL with sand, moist.						
2.5		SM	Reddish brown (5 YR 5/4) silty SAND, moist and very dense. Sand is subrounded, well-graded, 30% mafics, 40% felsics, 30% quartz. Gravel is subangular with 90% basalt, 10% latite/ andesite. Approximately 20% silt, 10% gravel, 70% sand.						
5			...boring cleared with air knife to 5', sample DBSA-3-Q-5. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
7.5									
10			...same as above, sample DBSA-3-Q-10. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
12.5									
15									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 6



# EXPLORATION LOG DBSA-3

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

BORING LOCATION: SEE FIGURE 2

EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER

ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1

EXPLORATION DATE: 8/8/07

EQUIPMENT: DIEDRICH D-120 DRILL RIG

LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5									
20		SM	Reddish brown (5 YR 5/4) silty SAND with gravel, few cobbles, moist and very dense. Sand is subrounded, well-graded with 60% felsics, 40% mafics. Gravel is subrounded to subangular, well graded, consists of 30% basalt, 70% latite. Approximately 20% silt, 20% gravel, 60% sand. Sample DBSA-3-Q-20 and DBSA-3-Q-20-FD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
22.5									
25									
27.5									
30			...same soil as above, sample DBSA-3-Q 30. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 6

# EXPLORATION LOG

## DBSA-3

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

**BORING LOCATION: SEE FIGURE 2**

**EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER**

**ELEVATION:** EXISTING GROUND SURFACE

**PROJECT NO.:** 20072226V1

**EXPLORATION DATE:** 8/8/07

**EQUIPMENT:** DIEDRICH D-120 DRILL RIG

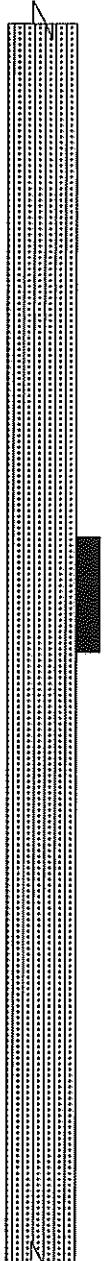
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div> <div>32.5</div> <div>35</div> <div>37.5</div> <div>40</div> <div>42.5</div> <div>45</div> <div>47.5</div> </div>			<p>...approximate percentages of soil types estimated using ASTM D2488 X4.1 "Jar Method": 15% silt, 20% gravel, 65% sand, sample DBSA-3-Q-40. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 6

# EXPLORATION LOG DBSA-3

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 8/8/07

EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER

EQUIPMENT: DIEDRICH D-120 DRILL RIG

ELEVATION: EXISTING GROUND SURFACE

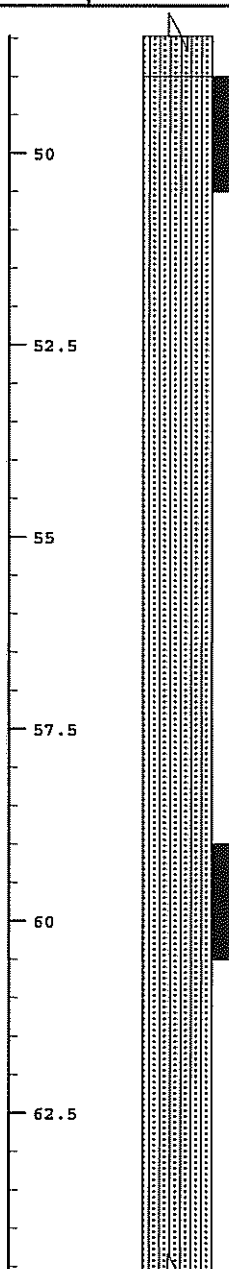
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
		SM	<p>Reddish brown (5 YR 5/4) silty SAND, moist, weakly cemented and very dense. Sand is subrounded, well-graded, with 60% felsics, 40% mafics. Gravel is subangular, well-graded, consists of 100% basalt. Approximately 20% silt, 10% gravel, 70% sand. Sample DBSA-3-Q-50. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...weakly to moderately cemented (based upon drilling behavior and drilling rates).</p> <p>...same as above, except for trace gravel, sample DBSA-3-Q-60. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 6



# EXPLORATION LOG DBSA-3

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 8/8/07

EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER

EQUIPMENT: DIEDRICH D-120 DRILL RIG

ELEVATION: EXISTING GROUND SURFACE

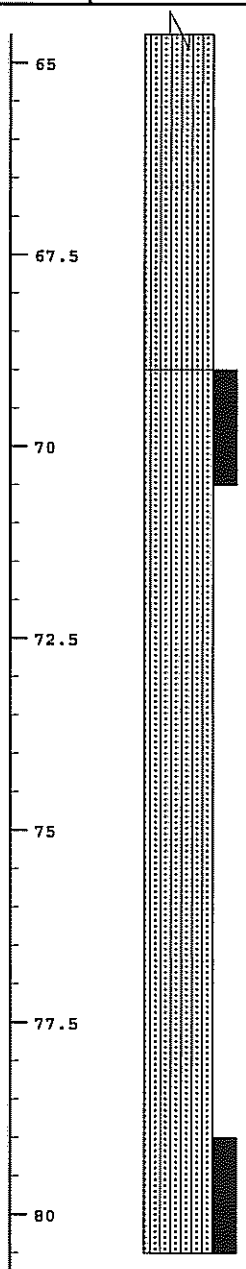
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65									
67.5									
70		SM	Light reddish brown (5 YR 6/3) silty SAND with gravel, moist, weakly cemented and very dense. Sand is subrounded, well-graded, with 60% felsics, 40% mafics. Gravel is subangular, well-graded, consists of 100% dacite. Approximately 20% silt, 25% gravel, 55% sand. Sample DBSA-3-Q-70.						
72.5									
75									
77.5									
80			...yellowish brown (10 YR 5/4), caliche coats on gravel clasts, sample DBSA-3-Q-80.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 6

# EXPLORATION LOG DBSA-3

**PROJECT:** BRC DEEP BACKGROUND INVESTIGATION

**PROJECT NO.:** 20072226V1

**BORING LOCATION:** SEE FIGURE 2

**EXPLORATION DATE:** 8/8/07

**EXPLORATION SIZE (dia.):** 6" O.D. H.S. AUGER

**EQUIPMENT:** DIEDRICH D-120 DRILL RIG

**ELEVATION:** EXISTING GROUND SURFACE

**LOGGED BY:** M. MEHLHORN

**INITIAL DEPTH TO WATER:** NOT ENCOUNTERED

**DATE MEASURED:** N/A

**FINAL DEPTH TO WATER:** NOT ENCOUNTERED

**DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div style="text-align: center;"> </div>			END OF BORING AT 80.5 FEET						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made.  
It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 6

# EXPLORATION LOG DBSA 4

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-19-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		PAVE	Dark gray ASPHALT 2.25 inches thick.						
2.5		FILL	Very pale brown (10 YR 7/4) silty GRAVEL with sand, moist.						
5			...boring cleared with air knife to 5'.						
7.5		SM	...collect DBSA-4-Q-5. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Light brown (7.5 YR 6/4), silty SAND with gravel (approximately 40% gravel, well graded, angular to subangular (approximately 10% coarse gravel, 40% medium gravel, 50% fine gravel), approximately 15% silt, 45% sand (well graded, subrounded, approximately 20% course sand, 20% medium sand, 60% fine sand), moist. Sand: approximately 5% mafics, 95% felsics. Gravel: approximately 60% basalt (subangular), 40% andesite (angular), caliche coats on gravel clasts. ...collect DBSA-4-Q-10. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Light brown (7.5 YR 6/4), silty SAND (approximately 15% gravel (poorly graded, subangular, 100% fine gravel), approximately 20% silt, 65% sand (poorly graded "skip" graded, subrounded, approximately 30% course sand, 10% medium sand, 60% fine sand), moist. Sand and gravel have same composition as 5.0'-7.5' interval; at 12.5' has: 0.5" silty gravel (GM) bed with 100% angular andesite gravel (well graded).						
10									
12.5									
15									

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 7



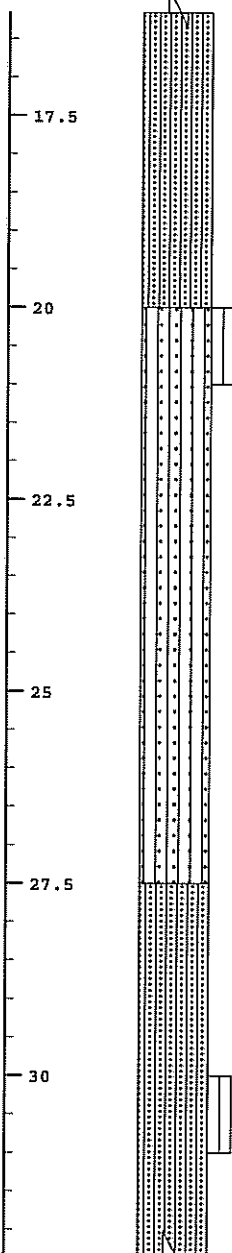
# EXPLORATION LOG DBSA 4

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-19-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5			...contact gradational over 2' with the unit described below.						
20		SP-SM	...collect DBSA-4-Q-20. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Light brown (7.5 YR 6/4), poorly graded SAND with silt and gravel (approximately 50% sand, (subrounded, approximately 45% coarse sand, 15% medium sand, 35% fine sand), 10% silt, 40% gravel (well graded, subangular to angular, approximately 30% coarse gravel, 30% medium gravel, 40% fine gravel), moist. Sand: 20% mafics (as basalt), 80% felsics. Gravel: 40% basalt (subangular), 40% andesite, 20% rhyolite. Caliche coats on gravel clasts. ...very pale brown (10 YR 7/3) carbonaceous layer, approximately 1' thick. ...andesite cobble (5" diameter).						
22.5									
25		SM	Brown (7.5 YR 5/4), silty SAND with gravel, same characteristics as last interval besides approximately 25% silt, moist.  ...collect DBSA-4-Q-30. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...same as above; has alternating inter beds of sand and gravel.						
27.5									
30									

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# EXPLORATION LOG

## DBSA 4

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

**BORING LOCATION: SEE FIGURE 2**

**EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE**

**ELEVATION:** EXISTING GROUND SURFACE

**PROJECT NO.:** 20072226V1

EXPLORATION DATE: 10-19-07

**EQUIPMENT:** SONIC DRILL RIG

LOGGED BY: M. MEHLHORN

**INITIAL DEPTH TO WATER: NOT ENCOUNTERED**

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

DATE MEASURED: N/A

[illegible]

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

**Figure No. 7**

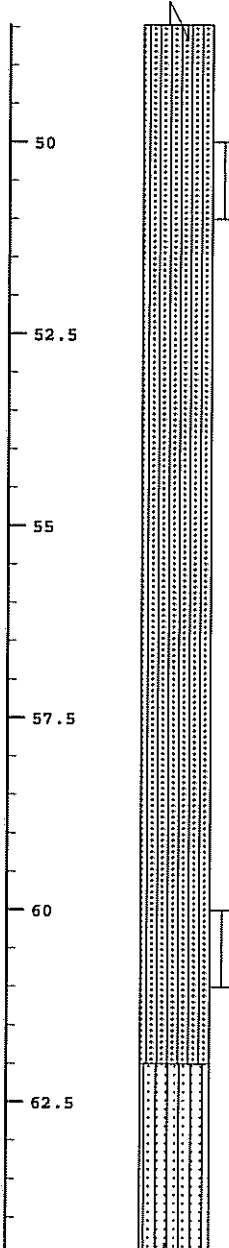
# EXPLORATION LOG DBSA 4

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-19-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50			approximately 40% course sand, 10% medium sand, 50% fine sand), moist. Sand: approximately 5% mafics, 95% felsics. Gravel: 40% basalt, 30% andesite, 30% rhyolite. ...gravel becomes poorly graded, approximately 80% fine gravel. Reddish yellow (7.5 YR 6/6), silty SAND (approximately 10% gravel (poorly graded, subangular, approximately 100% fine gravel), approximately 15% silt, 75% sand (well graded, subrounded, approximately 40% course sand, 20% medium sand, 40% fine sand), moist. Sand and gravel composition similar to 46' bgs. ...collect DBSA-4-Q-50. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...reddish yellow (7.5 YR 6/6), gravel clasts (basalt) show minor clay and iron oxide alteration. Traces of chloritic andesite, cementation occurs as thin randomly distributed layers.						
52.5									
55									
57.5									
60			...collect DBSA-4-Q-60. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Very pale brown (10 YR 7/4), silty SAND with gravel (approximately 35% gravel (well graded, angular to subangular, approximately 20% course gravel, 30% medium gravel, 50% fine gravel), 20% silt, 45% sand (40% course sand, 20% medium sand, 40% fine sand), moist. Very pale brown (10 YR 7/4), well graded SAND with silt (approximately 10% gravel						
62.5		SW-SM							

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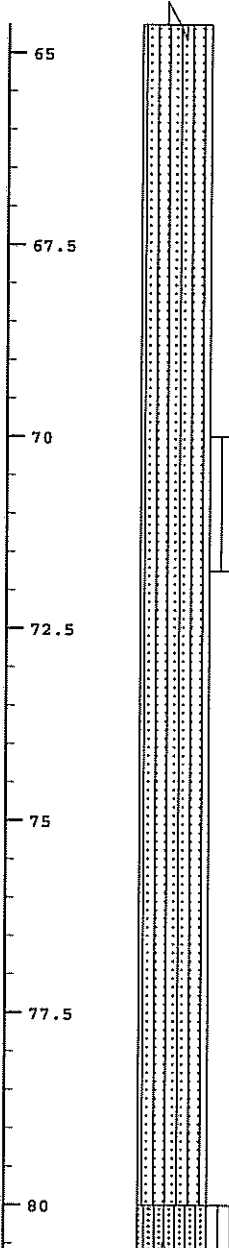
# EXPLORATION LOG DBSA 4

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-19-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			<p>(poorly graded, subrounded, approximately 5% medium gravel, 95% fine gravel), 10% silt, 80% sand (subrounded, approximately 40% coarse sand, 10% medium sand, 50% fine sand). Sand: approximately 5% mafics, 95% felsics. Gravel: approximately 20% rhyolite, 30% basalt, 50% andesite.</p> <p>...collect DBSA-4-Q-70. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...traces of iron oxide stained and clayey weathered basalt.</p> <p>...1' thick layer of angular to subangular gravel.</p>						
		SM	...collect DBSA-4-Q-80. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 7

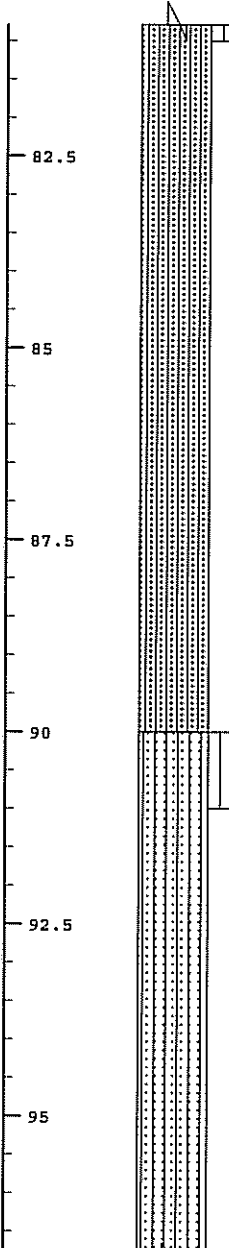
# EXPLORATION LOG DBSA 4

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-19-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
82.5			Very pale brown (10 YR 7/4), silty SAND with gravel (approximately 35% gravel (poorly graded, subangular, approximately 20% coarse gravel, 10% medium gravel, 70% fine gravel), 15% silt, 50% sand ("skip" graded poorly graded, subrounded, approximately 40% course sand, 15% medium sand, 45% fine sand), moist. Sand: 5% mafics, 95% felsics. Gravel: approximately 60% basalt, 30% andesite, 10% rhyolite.						
85									
87.5									
90		SW-SM	1' wide bed of light brown (7.5 YR 6/4), well graded SAND with silt (90% sand (subangular to subrounded, approximately 50% course sand, 40% medium sand, 10% fine sand), 10% silt, moist. Sand: 20% mafics (as basalt and andesite), 80% felsics (as rhyolite and feldspar). ...collect DBSA-4-Q-90. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Light brown well graded SAND with silt and gravel (approximately 40% gravel (well graded, subangular to angular, approximately 30% coarse gravel, 40% medium gravel, 30% fine gravel), 10% silt, 50% sand (subangular to subrounded, approximately 40% course sand, 30% medium sand, 30% fine sand), moist. Gravel: approximaely 40% andesite, 50% basalt, 20% rhyolite. Sand: 20% mafics (as basalt and andesite), 80% felsics (as						
92.5									
95									

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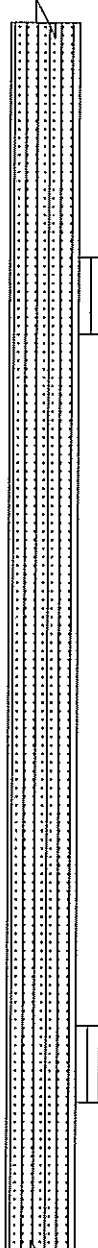
# EXPLORATION LOG DBSA 4

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-19-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>97.5</p><p>100</p><p>102.5</p><p>105</p><p>107.5</p><p>110</p><p>112.5</p> </div>  </div>			<p>rhyolite and feldspar). 6" basalt cobble.                      ...shows white encrustations (salts) from possible groundwater leaching.</p> <p>...collect DBSA-4-Q-100. PIDs: 10.6, 11.7 eV = 0.0 ppmV.                      ...1' wide basalt clast.</p> <p>...has 0.5' to 1.0' wide layers of well graded, angular gravel, consisting of approximately 40% basalt, 40% andesite, 20% dacite.</p> <p>...collect DBSA-4-Q-110. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						

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**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 7



# EXPLORATION LOG DBSA 4

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-19-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
115									
117.5		SW	Brown (7.5 YR 5/4), well graded SAND with gravel (approximately 40% gravel (well graded, subangular to angular, approximately 40% coarse gravel (as cobbles and boulders), 30% medium gravel, 30% fine gravel), approximately 5% silt, 55% sand (subrounded, approximately 40% course sand, 35% medium sand, 25% fine sand), moist. Sand: approximately 10% mafics (as basalt), 90% felsics. Gravel: approximately 40% basalt, 30% andesite, 30% dacite. Minor chloritic material.						
120		SW-SM	...collect DBSA-4-Q-120 and DBSA-4-Q-120-FD. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Reddish yellow (7.5 YR 6/6), well graded SAND with silt and gravel (approximately 40% gravel (well graded, angular, approximately 40% course gravel, 30% medium gravel, 30% fine gravel), 10% silt, 50% sand (subangular to subrounded, approximately 50% course sand, 15% medium sand, 35% fine sand), moist. Sand: approximately 15% mafics (as basalt), 85% felsics (as feldspar and dacite), trace mica. Gravel: approximately 50% basalt, 40% andesite, 10% dacite, trace green andesite. Caliche coats on gravel clasts.						
122.5									
125									
127.5		GW	Reddish yellow (7.5 YR 6/6), well graded GRAVEL with sand (approximately 30% sand subangular to subrounded, approximately 50% course sand, 15% medium sand, 35% fine sand), 5% silt, 65% gravel (subangular to angular, approximately 40% course gravel (as						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

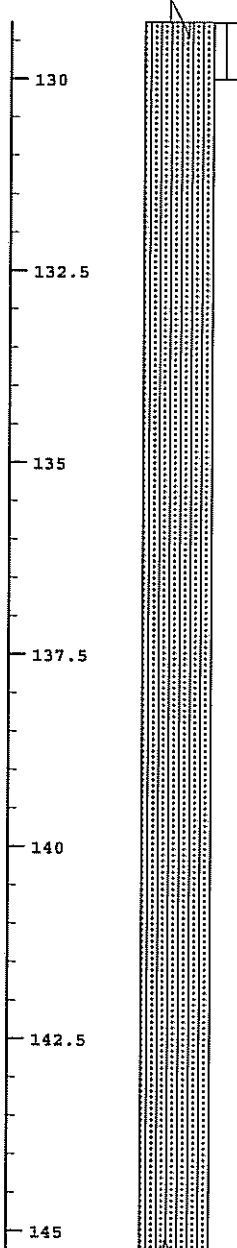
# EXPLORATION LOG DBSA 4

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-19-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
		SM	<p>boulders and cobbles, 20% medium gravel, 40% fine gravel), moist.                      ...collect DBSA-4-Q-130. PIDs: 10.6, 11.7 eV = 0.0 ppmV.                      Strong brown (7.5 YR 5/6) silty SAND with gravel (approximately 30% gravel, poorly graded, subangular to angular, approximately 20% coarse gravel, 30% medium gravel, 50% fine gravel, approximately 20% silt, approximately 50% sand (well graded), subrounded, approximately 40% coarse sand, 20% medium sand, 40% fine sand), moist.                      Sand: approximately 20% matrics (basalt, trace chlorite), 80% felsics. Gravel: approximately 40% andesite, 40% basalt, 20% dacite.</p> <p>...Sample DBSA 4-Q-140                      ...caliche coats gravel clasts, occurs as 0.5" nodules. 140'-142.5': mostly gravel, basaltic and angular.                      ...very moist zone (approximately 2.0" thick).</p>						

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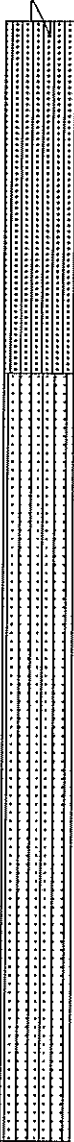
# EXPLORATION LOG DBSA 4

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-19-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
147.5			...Sample DBSA 4-150. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
150		SW-SM	Strong brown (7.5 YR 5/6) well-graded Sand with silt and gravel (approximately 40% gravel (well-graded, subangular to angular with tabular clasts, approximately 40% coarse gravel, 30% medium gravel, 30% fine gravel), approximately 10% silt, 40% sand (subrounded, 40% course sand, 30% medium sand, 30% fine sand), moist. Sand and gravel have same composition as above; traces of chloritic andesite. Caliche coats gravel clasts.						
152.5			...Approximately 30% cobbles.						
155			...Sample DBSA 4-Q-160. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
157.5			END OF BORING AT 160.0 FEET						
160									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG DBSA 8

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-17-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		PAVE	Dark gray ASPHALT 3.5 inches thick.						
		FILL	Brown (7.5 YR 5/4), silty SAND with gravel, dry.						
2.5		SM	Brown (7.5 YR 5/4), silty SAND with gravel, dry and dense.  ...boring cleared with air knife to 5'.						
5		SW	...collect DBSA-8-Q-5. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Brown (7.5 YR 5/2), well graded SAND, few gravel, dry and dense.  ...light brown (7.5 YR 6/3), 10% gravel (angular andesite and basalt), 85% sand (poorly sorted), 50-60% medium sand, 1-5% fines.  ...collect DBSA-8-Q-10. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...course sub angular basalt cobble and gravel at 10'.  ...5" subangular to sub-rounded basalt cobble.  ...brown (7.5 YR 3/2).						
7.5									
10									
12.5									
15									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 8



# EXPLORATION LOG DBSA 8

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-17-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5			...fines (silt) increase to 10%.						
20			...brown (7.5 YR 5/3). Collect DBSA-8 Q-20 and DBSA-8-Q-20-FD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
22.5			...4" subangular basalt cobble.						
25			...15-20% gravel, 70-75% sand, 5-10% fines.						
27.5			...3" subangular basalt cobble.						
30			...collect DBSA-8-Q-30. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...brown (7.5 YR 4/4), 4" subangular basalt cobble, coarse basalt and andesite gravel to 2" diameter.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

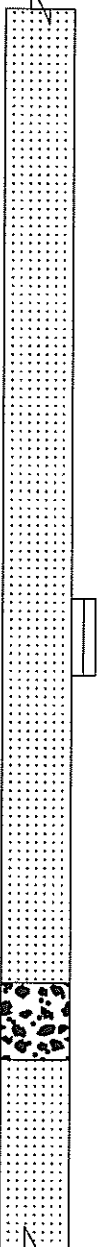
# EXPLORATION LOG DBSA 8

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-17-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>32.5</p><p>35</p><p>37.5</p><p>40</p><p>42.5</p><p>45</p><p>47.5</p> </div>  </div>			<p>...collect DBSA-8-Q-40.                      PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						
		GW	Brown (7.5 YR 4/4), well graded GRAVEL with sand, dry and very dense.						
		SW	Brown (7.5 YR 4/4), well graded SAND with gravel, dry and very dense.						

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**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 8

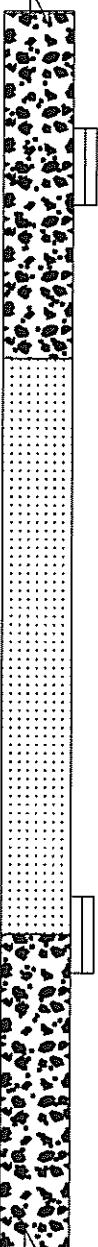
# EXPLORATION LOG DBSA 8

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-17-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50		GW	Brown (7.5 YR 4/4), well graded GRAVEL with sand, little to some cobbles, dry and very dense.  ...collect DBSA-8-Q-50, DBSA-8-Q-50-FD, and DBSA-8-Q-50-MS/MSD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
52.5		SW	Brown (7.5 YR 4/4), well graded SAND with gravel, dry and very dense.                       ...5% gravel, 90% coarse sand, 1- 5% fines. ...collect DBSA-8-Q-60. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...borderline SP at 60'.						
55		GW	Brown (7.5 YR 4/4), well graded GRAVEL with sand, dry and very dense. Few cobbles of andesite and basalt to 70'.						
57.5									
60									
62.5									

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 8

# EXPLORATION LOG DBSA 8

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 10-17-07

EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE

EQUIPMENT: SONIC DRILL RIG

ELEVATION: EXISTING GROUND SURFACE

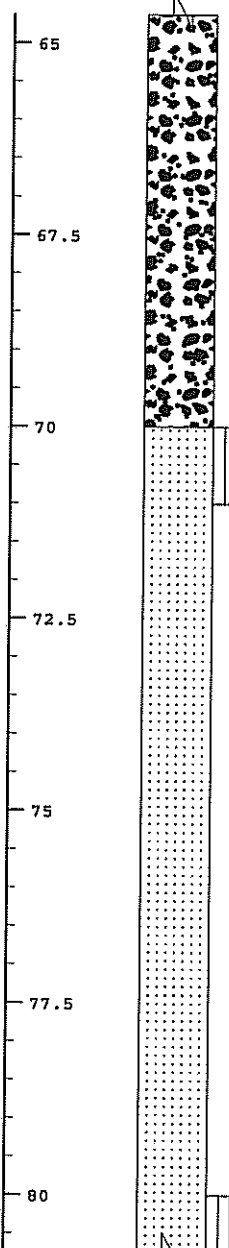
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65									
67.5									
70		SW	Brown (7.5 YR 4/4), well graded SAND with gravel, dry and very dense. ...collect DBSA-8-Q-70. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
72.5			...4" subangular basalt cobble.						
75									
77.5									
80			...reddish brown (5 YR 4/4). ...collect DBSA-8-Q-80.						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 8



# EXPLORATION LOG DBSA 8

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-17-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
82.5			PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
85		SC	Reddish brown (5 YR 4/4), well graded SAND with gravel, dry and very dense.						
87.5		SW	Reddish brown (5 YR 4/4), well graded SAND with gravel, dry and very dense.						
90			...collect DBSA-8-Q-90. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
92.5									
95									

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# EXPLORATION LOG DBSA 8

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-17-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
97.5									
100		GW	Reddish brown (5 YR 4/4), well graded GRAVEL with SAND, dry and very dense. ...collect DBSA-8-Q-100. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
102.5		SW	Reddish brown (5 YR 4/4), well graded SAND with gravel, dry and very dense.						
105		GW	Reddish brown (5 YR 4/4), well graded GRAVEL with sand, dry and very dense.						
		SW	Reddish brown (5 YR 4/4), well graded SAND with gravel, dry and very dense.						
107.5		GW	Brown (7.5 YR 4/4), well graded GRAVEL with sand, dry and very dense. ...50% gravel (angular volcanics), 45-50% sand (poorly sorted), 1-5% fines (silt).  ...collect DBSA-8-Q-110. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
110									
112.5									

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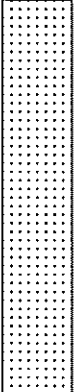
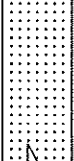
# EXPLORATION LOG DBSA 8

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-17-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
115									
117.5		SW	Strong brown (7.5 YR 4/6), well graded SAND with gravel, dry and very dense.						
120		GW	Strong brown (7.5 YR 4/6), well graded GRAVEL with sand, dry and very dense.  ...collect DBSA-8-Q-120 and DBSA-8-Q-120-FD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
122.5		SW	Brown (7.5 YR 4/4), well graded SAND with gravel, dry, very dense. 15-20 % gravel, gravel consists of angular volcanics. 80% sand, poorly sorted. 1-5% fines (silt).						
125									
127.5									

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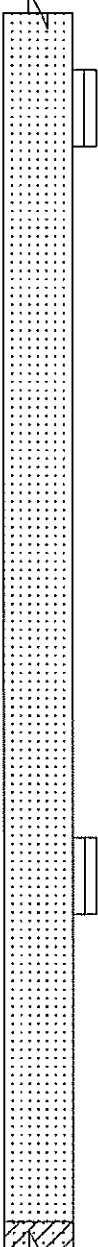
# EXPLORATION LOG DBSA 8

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-17-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
130			...collect DBSA-8-Q-130. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
132.5			...20% gravel (angular volcanics), 75-80% sand (poorly sorted), 1-5% fines (silt).						
135									
137.5									
140			...collect DBSA-8-Q-140. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
142.5									
145		SC	Reddish brown (5 YR 4/4), clayey SAND						

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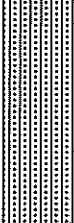

# EXPLORATION LOG DBSA 8

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-17-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
147.5			with gravel, dry and very dense.						
150		SM	Reddish brown (5 YR 5/3), silty SAND with gravel, dry and very dense.  ...collect DBSA-8-Q-150. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
152.5			...10% gravel, 75-80% sand, 10-15% fines.						
155									
157.5									
160			...collect DBSA-8-Q-160.						
			END OF BORING AT 160.0 FEET						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 8

# EXPLORATION LOG DBSA-9

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-15-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		PAVE	Dark gray ASPHALT 2.25 inches thick.						
		FILL	Strong brown (7.5 YR 5/4) silty SAND with gravel, dry.						
2.5		SM	Strong brown (7.5 YR 5/4) silty SAND with gravel, dry and dense.  ...boring cleared with air knife to 5'.						
5		SW	Brown (7.5 YR 5/4) well graded SAND with gravel, little cobbles (5" diameter angular andesite), dry and dense. Collect DBSA 9-Q-5. PIDs: 10.6, 11.7 eV = 0.0 ppmV. 20% gravel (angular basalt and andesite), 75% sand (poorly sorted), 1-5% fines.  ...collect DBSA-9-Q-10 PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
7.5									
10									
12.5									
15		GW	Brown (7.5 YR 5/4) well graded GRAVEL with sand, little cobbles (up to 7" diameter angular andesite), dry and dense. 60% gravel (80% of gravel is angular andesite, 20% of gravel is basalt, dacite, and						

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**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 9




# EXPLORATION LOG DBSA-9

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-15-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5			trachyte).						
20		SW	Light brown (7.5 YR 6/4) well graded SAND, few gravel, dry and dense. 10% gravel, 85% sand, 1-5% fines.  ...4" angular andesite cobbles to 20'.  ...collect DBSA-9-Q-20 and DBSA-9-Q-20-FD PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
22.5									
25			...course, angular andesite gravel to 2.5". From 25' to 27'.						
27.5			...40-50% gravel (borderline well graded gravel (GW)).						
30			... collect DBSA-9-Q-30 PIDs: 10.6, 11.7 eV = 0.0 ppmV						

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**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 9

# EXPLORATION LOG DBSA-9

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-15-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5									
35		GW SW	Brown (7.5 YR 5/4), well graded GRAVEL with sand, dry and very dense. Gravel consists of approximately 80% angular andesite and approximately 20% subangular basalt.  Brown (7.5 YR 5/4), well graded SAND with gravel, dry and very dense. Course, angular andesite gravel (1" to 2" diameter), to 38'.  ...collect DBSA-9-Q-40. PIDs: 10.6, 11.7 eV = 0.0 ppmV.  ...5" angular basalt cobble.						
37.5									
40									
42.5									
45									
47.5									

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# EXPLORATION LOG

## DBSA-9

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

**PROJECT NO.:** 20072226V1

**BORING LOCATION: SEE FIGURE 2**

**EXPLORATION DATE:** 10-15-07

**EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE**

EQUIPMENT: SONIC DRILL RIG

**ELEVATION:** EXISTING GROUND SURFACE

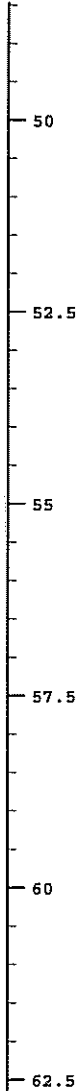
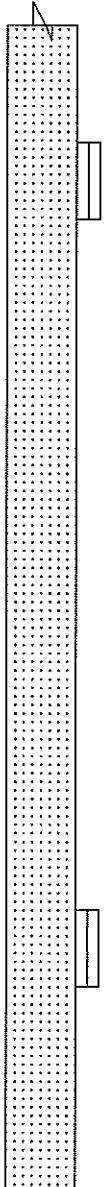
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			<p>...2.5" angular andesite gravel Collect DBSA-9-Q-50, DBSA-9-Q-50-FD, and DBSA-9-Q-50-MS/MSD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...1" thick weakly cemented layer.</p> <p>...collect DBSA-9-Q-60 PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						

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**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

**Figure No. 9**

# EXPLORATION LOG

## DBSA-9

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-15-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65			...15-20% gravel, 75-80% sand, and 1-5% fines.						
67.5									
70			...10% gravel, 85-90% sand, 1-5% fines. ...collect DBSA-9-Q-70 PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
72.5			...15-20% gravel, 75-80% sand, 1-5% fines.						
75									
77.5									
80			...collect DBSA-9-Q-80 PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

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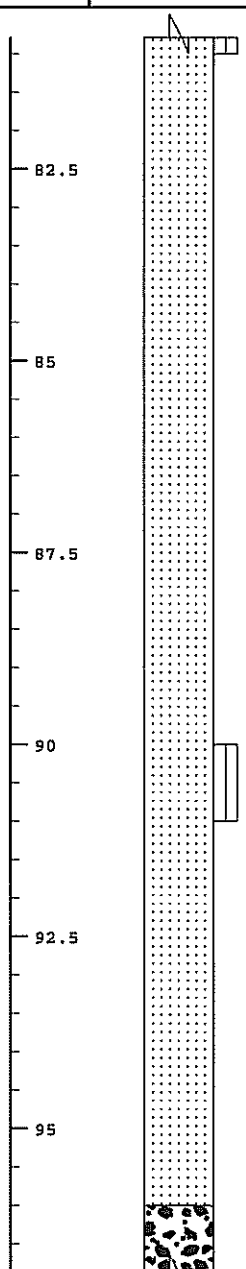
# EXPLORATION LOG DBSA-9

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-15-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			15% gravel, 80% sand, 1-5% fines.  ...3" angular andesite cobble.  ...collect DBSA-9-Q-90. PIDs: 10.6, 11.7 eV = 0.0 ppmV. 10-15% gravel, 85% sand, 1-5% fines.						
		GW	Brown (7.5 YR 5/4), well graded GRAVEL with sand, dry and very dense. Gravel						

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**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 9

# EXPLORATION LOG DBSA-9

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-15-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
97.5			consists of 80% basalt and andesite, 20% trachyte, dacite, and latite.  ...collect DBSA-9-Q-100. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...weakly cemented nodules of sand with white salt coatings. Salt coatings observed in cemented soil to 160'.						
100		SW	Brown (7.5 YR 5/4), well graded SAND with gravel, dry and very dense.  ...weakly cemented sand layers 1" thick (multiple thin layers to 108').  ...multiple weakly cemented sand layers 1" thick to 111'. ...collect DBSA-9-Q-110. PIDs: 10.6, 11.7 eV = 0.0 ppmV.  ...multiple weakly cemented sand layers 1" thick to 114'.						
102.5									
105									
107.5									
110									
112.5									

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**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 9

# EXPLORATION LOG

## DBSA-9

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-15-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div> <div>115</div> <div>117.5</div> <div>120</div> <div>122.5</div> <div>125</div> <div>127.5</div> </div>			<p>...thin (.25"), white (10 YR 8/1), weathered and leached CALICHE lenses/stringers within cemented sand nodules. Caliche is soft to medium dense, moist. Caliche stringers are from 116' to 116.5'.</p> <p>...collect DBSA-9-Q-120 and DBSA-9-Q-120-FD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...weakly cemented sand to 123.5'.</p> <p>...multiple weakly cemented layers of sand 1" to 1.5" thick to 130'.</p>						

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**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

**Figure No. 9**



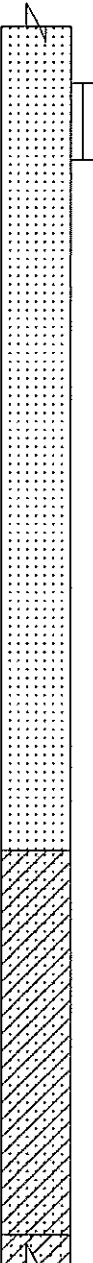
# EXPLORATION LOG DBSA-9

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-15-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
130			...collect DBSA-9-Q-130. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
132.5									
135			...weakly cemented sand to 140'.						
137.5									
140		SW-SC	...moist: 140' to 143'. ...collect DBSA-9-Q-140. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...trace clay.						
142.5			...dry.						
145		SC	Brown (7.5 YR 4/4), clayey SAND with						

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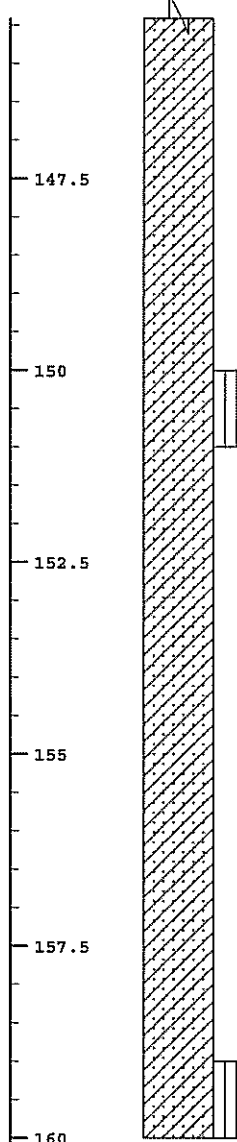
# EXPLORATION LOG DBSA-9

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-15-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			gravel, moist and very dense.  ...collect DBSA-9-Q-150. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Gravel: 50% angular basalt and andesite, 50% dacite and trachyte. Sand: poorly sorted.  MUDDY CREEK FORMATION: Brown (7.5 YR 4/4), clayey SAND with gravel, moist and very dense. ...borderline sandy lean clay (CL) from 154' to 158' bgs.  ...collect DBSA-9-Q-160. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
			END OF BORING AT 160.0 FEET						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made.  
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# EXPLORATION LOG DBSA 10

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-16-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		PAVE	Dark gray ASPHALT 2.0 inches thick.						
2.5		FILL	Brown (7.5 YR 5/4), silty SAND with gravel, dry.						
			Brown (7.5 YR 5/4), silty SAND with gravel, dry and dense.						
			...boring cleared with air knife to 5'.						
5		SW	Reddish brown (5 YR 5/3), well graded SAND, few gravel, dry, dense. Gravel is .5" to 1" size, angular andesite. Sand is poorly sorted. Trace fines (1%).						
7.5			...Collect DBSA-10-Q-5. PIDs: 10.6, 11.7 eV = 0.2, 0.1 ppmV. No odors or stained soils observed.						
10			...collect DBSA-10-Q-10. PIDs: 10.6, 11.7 eV = 2.1, 0.2 ppmV. No odors or stains observed.						
12.5			...occasional coarse gravel to 2" size, angular to subangular volcanics (basalt and andesite) to 20' depth.						
15									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG

## DBSA 10

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-16-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5			...same soil (SW) as described at 5' bgs.						
20			...brown (7.5 YR 5/2). ...collect DBSA-10-Q-20 and DBSA-10-Q-FD. PIDs: 10.6, 11.7 eV = 1.0, 0.0 ppmV.						
22.5									
25									
27.5									
30			...collect DBSA-10-Q-30 PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
			...weakly cemented to 35'.						

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**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 10

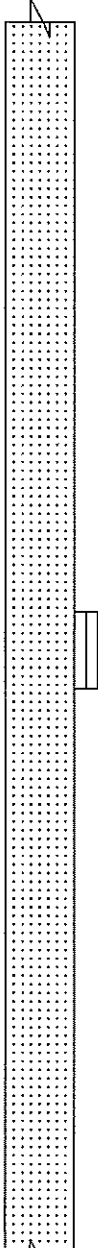
# EXPLORATION LOG DBSA 10

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-16-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5 35 37.5 40 42.5 45 47.5			<p>...same soil (SW) as described at 5' bgs.</p> <p>...uncemented.</p> <p>...brown (7.5 YR 4/4).            ...collect DBSA-10-Q-40.            PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...moist to 45'.</p> <p>...dry.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made.  
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# EXPLORATION LOG

## DBSA 10

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

**BORING LOCATION: SEE FIGURE 2**

**EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE**

**ELEVATION:** EXISTING GROUND SURFACE

**PROJECT NO.:** 20072226V1

EXPLORATION DATE: 10-16-07

**EQUIPMENT:** SONIC DRILL RIG

LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

FINAL DEPTH TO WATER: NOT ENCOUNTERED

**DATE MEASURED:** N/A

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			<p>...same soil (SW) as described at 5' bgs.</p> <p>...collect DBSA-10-Q-50. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...5" angular basalt cobble.</p> <p>... collect DBSA-10-Q-60. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...3" subangular basalt cobble.</p> <p>...white (10 YR 8/1), salt coatings on gravel and cemented sand nodules.</p>						

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**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

**Figure No. 10**

# EXPLORATION LOG DBSA 10

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-16-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>65</p><p>67.5</p><p>70</p><p>72.5</p><p>75</p><p>77.5</p><p>80</p> </div> </div>			<p>...same soil (SW) as described at 5' bgs.</p> <p>...15-20% gravel (angular to subangular basalt and andesite), 75-80% sand (poorly sorted), 1% fines.</p> <p>...collect DBSA-10-Q-70. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...borderline well graded gravel (GW) at 75' (approximately 40% gravel). Gravel consists of angular andesite and basalt.</p> <p>...collect DBSA-10-Q-80. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						

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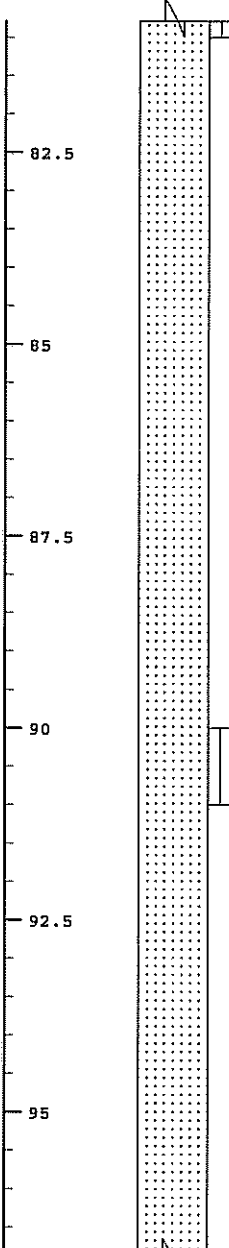
# EXPLORATION LOG DBSA 10

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-16-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			<p>...same soil (SW) as described at 5' bgs.</p> <p>...4" subangular to angular "blocky" basalt cobble.</p> <p>...weakly cemented sand to 94'.</p> <p>...collect DBSA-10-Q-90.            PIDs: 10.6, 11.7 eV = 0.0 ppmV.            ...10% gravel, 90% sand, 1% fines.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG DBSA 10

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-16-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>97.5</p><p>100</p><p>102.5</p><p>105</p><p>107.5</p><p>110</p><p>112.5</p> </div> </div>			<p>...same soil (SW) as described at 5' bgs.</p> <p>...4" subangular basalt cobble.                      ...collect DBSA-10-Q-100.                      PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...weakly cemented sand to 105'.</p> <p>...collect DBSA-10-Q-110.                      PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG

## DBSA 10

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-16-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div style="text-align: right;">115</div> <div style="text-align: right;">117.5</div> <div style="text-align: right;">120</div> <div style="text-align: right;">122.5</div> <div style="text-align: right;">125</div> <div style="text-align: right;">127.5</div>			<p>...same soil (SW) as described at 5' bgs.</p> <p>...collect DBSA-10-Q-120. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG DBSA 10

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 10-16-07

EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE

EQUIPMENT: SONIC DRILL RIG

ELEVATION: EXISTING GROUND SURFACE

LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <div style="position: relative; height: 600px;"> <div style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; border-left: 1px solid black; border-right: 1px solid black; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> <div style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; border-left: 1px solid black; border-right: 1px solid black; background: repeating-linear-gradient(-45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> <div style="flex: 0.5; text-align: center;"> <div style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; border-left: 1px solid black; border-right: 1px solid black; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> <div style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; border-left: 1px solid black; border-right: 1px solid black; background: repeating-linear-gradient(-45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> </div> </div>			<p>...same soil (SW) as described at 5' bgs. ...collect DBSA-10-Q-130. PIDs: 10.6, 11.7 eV = 0.0 ppmV. 10% gravel (angular andesite and subangular basalt), 90% sand (poorly sorted), 1% fines.</p> <p>...weakly cemented sand to 137'.</p> <p>...collect DBSA-10-Q-140. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						

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**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 10



# EXPLORATION LOG

## DBSA 10

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

**BORING LOCATION: SEE FIGURE 2**

**EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE**

**ELEVATION:** EXISTING GROUND SURFACE

**PROJECT NO.: 20072226V1**

**EXPLORATION DATE:** 10-16-07

EQUIPMENT: SONIC DRILL RIG

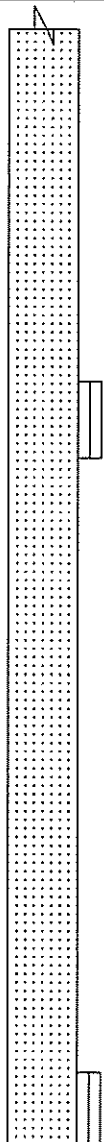
LOGGED BY: R. COOKE

**INITIAL DEPTH TO WATER: NOT ENCOUNTERED**

**DATE MEASURED:** N/A

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			<p>...same soil (SW) as described at 5' bgs.</p> <p>...collect DBSA-10-Q-150. PIDs: 10.6, 11.7 eV = 0.0 ppmV. 10% gravel (angular andesite and subangular basalt), 85-90% sand, (poorly sorted), 1-5% fines. No plasticity detected in the fine fraction using field tests.</p> <p>...weakly cemented sand with gravel to 160'.</p> <p>...collect DBSA-10-Q-160. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						
			END OF BORING AT 160.0 FEET						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

**Figure No. 10**

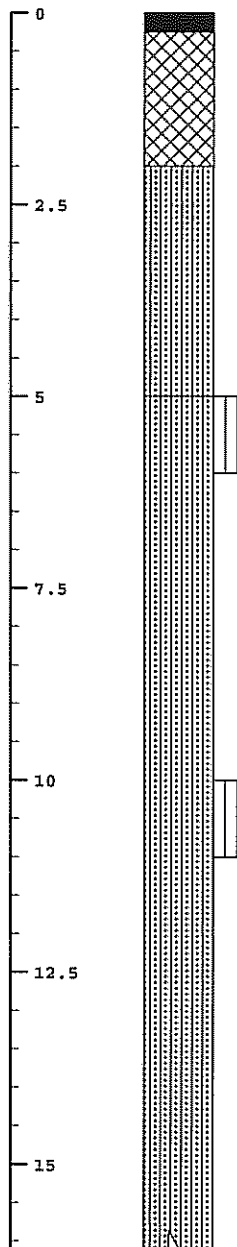
# EXPLORATION LOG DBSA 11

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-07-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		PAVE	Dark gray ASPHALT 2.5 inches thick.						
		FILL	Brown silty SAND, few gravel, dry.						
2.5		SM	Brown silty SAND, few gravel, dry and dense.  ...boring cleared with air knife to 5'.						
5		SM	...collect DBSA-11-Q-5. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Brown (7.5 YR 5/3), silty SAND with gravel, few cobbles to 8" diameter, dry, and dense. 5% Gravel (angular to subangular basalt and andesite), 85% sand (poorly sorted), 10% fines.  ...collect DBSA-11-Q-10. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...few cobbles to 3" diameter.						
7.5									
10									
12.5									
15									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG

## DBSA 11

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-07-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			<p>...collect DBSA-11-Q-20. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Brown (7.5 YR 5/3), silty SAND with gravel, few cobbles to 8" diameter, dry, and dense. 5% gravel (angular to subangular basalt and andesite), 85% sand (poorly sorted), 10% fines.</p> <p>...weakly cemented sand layer 1" thick.</p>						
		SP	<p>...90% sand, well sorted.</p> <p>...collect DBSA-11-Q-30. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Reddish gray (5 YR 3/2), poorly graded SAND, few gravel, dry and very dense. ...gravel size increases to 2" from 31' to 32'</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.


# EXPLORATION LOG DBSA 11

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-07-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5 35 37.5 40 42.5 45 47.5			<p>...weakly cemented sand layers 1.5" thick.</p> <p>...crystalline calcite to 1/16", forming rosettes.</p>						
		SW	<p>...collect DBSA-11-Q-40 and DBSA-11-Q-40-FD.                      PIDs: 10.6, 11.7 eV = 0.0 ppmV.                      Reddish brown (5 YR 5/3), well graded SAND with gravel, dry, and very dense.                      ...subangular basalt cobble 5" in diameter.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG

## DBSA 11

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

**BORING LOCATION: SEE FIGURE 2**

**EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE**

**ELEVATION:** EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1

**EXPLORATION DATE:** 10-07-07

EQUIPMENT: SONIC DRILL RIG

LOGGED BY: R. COOKE

**INITIAL DEPTH TO WATER: NOT ENCOUNTERED**

FINAL DEPTH TO WATER: NOT ENCOUNTERED

**DATE MEASURED:** N/A

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <div style="position: relative; height: 100px; border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 100%; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> <div style="position: absolute; top: 0; left: 0; right: 0; height: 100%; background: repeating-linear-gradient(-45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> <div style="flex: 0.5; text-align: center; font-size: 2em; margin-left: 5px;">N</div> </div> <div style="display: flex; flex-direction: column; align-items: center; margin-top: 10px;"> <div style="margin-bottom: 10px;">50</div> <div style="margin-bottom: 10px;">52.5</div> <div style="margin-bottom: 10px;">55</div> <div style="margin-bottom: 10px;">57.5</div> <div style="margin-bottom: 10px;">60</div> <div style="margin-bottom: 10px;">62.5</div> </div>			<p>...collect DBSA-11-Q-50. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...weakly cemented sand and gravel layer.</p> <p>...basalt cobble 4" in diameter.</p> <p>...brown (5 YR 5/4).</p> <p>...trace (1%) fines.</p> <p>...collect DBSA-11-Q-60. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 11

# EXPLORATION LOG

## DBSA 11

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

**BORING LOCATION: SEE FIGURE 2**

**EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE**

**ELEVATION:** EXISTING GROUND SURFACE

**PROJECT NO.:** 20072226V1

**EXPLORATION DATE:** 10-07-07

**EQUIPMENT:** SONIC DRILL RIG

LOGGED BY: R. COOKE

**INITIAL DEPTH TO WATER: NOT ENCOUNTERED**

FINAL DEPTH TO WATER: NOT ENCOUNTERED

**DATE MEASURED:** N/A

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div> <div>65</div> <div>67.5</div> <div>70</div> <div>72.5</div> <div>75</div> <div>77.5</div> <div>80</div> </div>			<p>...collect DBSA-11-Q-70. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...4-1/2" diameter angular to subangular andesite cobble.</p> <p>...weakly cemented sand and gravel layer to 78'bgs.</p> <p>...collect DBSA-11-Q-80. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.



# EXPLORATION LOG DBSA 11

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-07-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div style="display: flex; align-items: center;"> <div style="flex: 1;"> </div> <div style="flex: 1; padding-left: 10px;"> <p>...3" diameter andesite cobble. 20% gravel (angular), 75% sand (poorly sorted), 5% fines.</p> <p>...4" diameter subangular basalt cobble.</p> <p>...weakly cemented sand and gravel layer.</p> <p>...collect DBSA-11-Q-90. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...laminated sand and silt layers 1/4" to 1/2" thick, weakly cemented.</p> <p>...3" diameter andesite cobble, subrounded to subangular.</p> <p>...course gravel and cobbles from 92.5' to 94'. 45% gravel (angular to subangular andesite and basalt), 50% sand (poorly sorted), 5% fines.</p> <p>...slight increase in soil moisture content.</p> </div> </div>									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

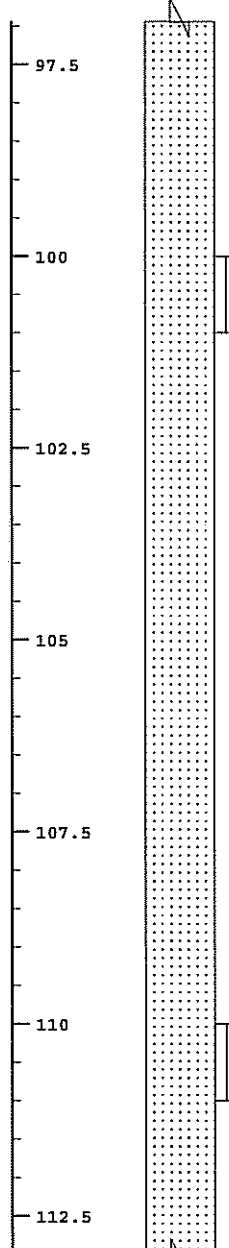
# EXPLORATION LOG DBSA 11

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-07-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>97.5</p><p>100</p><p>102.5</p><p>105</p><p>107.5</p><p>110</p><p>112.5</p> </div>  </div>			<p>...10-15% gravel.                      ...collect DBSA-11-Q-100.                      PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...3" diameter basalt cobble, vossicular texture, with secondary calcite crystalization.</p> <p>...weakly cemented sand and gravel layer from 106' to 108'.</p> <p>...gravel with weak red (10 YR 4/3) alteration mineralization.                      ...collect DBSA-11-Q-110.                      PIDs: 1.6, 11.7 eV = 0.0 ppmV.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

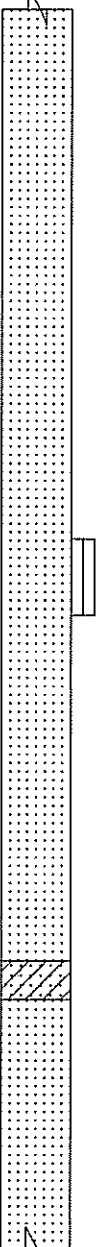
# EXPLORATION LOG DBSA 11

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-07-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
115			...collect DBSA-11-Q-120, DBSA-11-Q-120- FD, and DBSA-11-Q-120-MS/MSD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
117.5									
120									
122.5									
125									
		SC	Brownish gray (7.5 YR 6/2) clayey SAND,						
		SW	dry, weakly cemented and very dense. Reddish brown, well graded SAND with gravel, dry and very dense.						
127.5			...3" diameter subangular andesite cobble.						

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 11

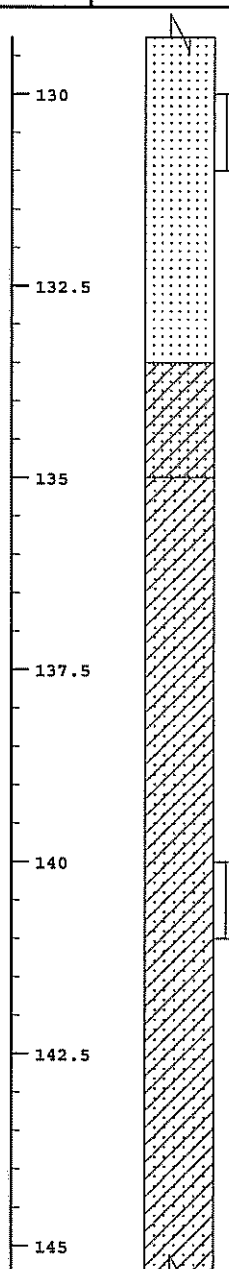
# EXPLORATION LOG DBSA 11

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-07-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
130			...collect DBSA-11-Q-130. PIDs: 10.6, 11.7 eV = 0.0 ppmV.  ...moist.						
132.5		SW-SC	Reddish brown (7.5 YR 5/3), well graded SAND with clay, moist and dense.						
135		SC	MUDDY CREEK FORMATION: Reddish brown (7.5 YR 5/3), clayey SAND, few gravel, moist, and very dense. Massive layers of clayey sand. ...10% gravel (3/8" to 1" in size, sub angular to angular andesite and basalt).  ...collect DBSA-11-T-140. PIDs: 10.6, 11.7 eV = 0.0 ppmV.  ...multiple moist zones from 142' bgs to 159' bgs..						
137.5									
140									
142.5									
145									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made.  
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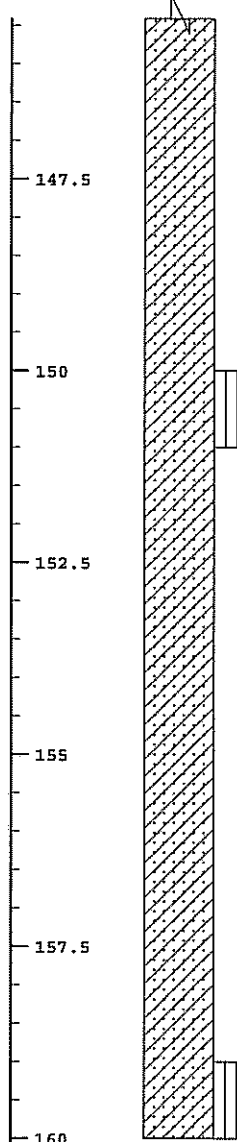
# EXPLORATION LOG DBSA 11

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-07-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			<p>...collect DBSA-11-T-150. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...course gravel to 2.5" in diameter.</p> <p>...collect DBSA-11-T-160. PIDs: 10.6, 11.7 eV = 0.0 ppm.</p>						
			END OF BORING AT 160.0 FEET						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made.  
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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 11

# EXPLORATION LOG DBSA 13

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-19-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		PAVE	Dark gray ASPHALT 2.25 inches thick.						
		FILL	Brown (7.5 YR 4/4), silty SAND with gravel, dry. 25% gravel, 70% sand, 1-5% fines. Gravel consists of angular to subangular andesite and basalt. ...boring cleared with air knife to 5' bgs.						
2.5		SM	Brown (7.5 YR 4/4), silty SAND with gravel, dry and dense.						
5		SW	...collect DBSA-13-Q-5. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Brown (7.5 YR 4/3), well graded SAND with gravel, dry and dense. 10% gravel (angular to subangular basalt and andesite), 85% sand (poorly sorted), mostly medium to coarse grain, 1-5% Fines (silt).						
7.5									
10			...collect DBSA-13-Q-10. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
12.5									
15			...5" subangular basalt cobble.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 12

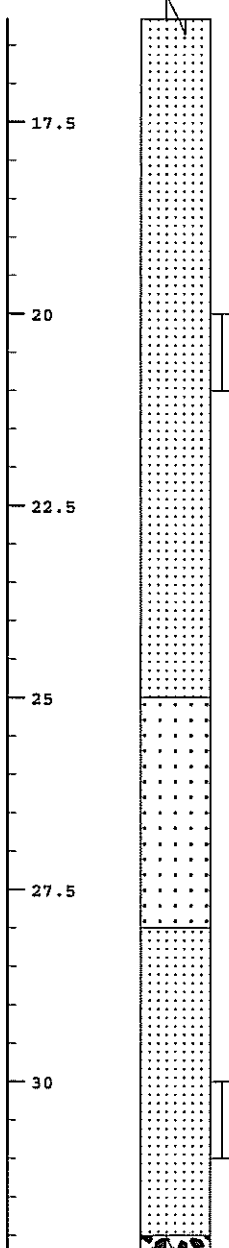
# EXPLORATION LOG DBSA 13

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-19-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5			...borderline gravel (30-40% gravel). ...collect DBSA-13-Q-20. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
20									
22.5									
25		SP	Brown (7.5 YR 5/4), poorly graded SAND, few gravel, dry, and dense. 5-10% gravel (angular, less than 1" diameter), sand consists of 80% medium to coarse sand.						
27.5		SW	Reddish brown (5 YR 4/3), well graded SAND with gravel, dry and very dense.  ...collect DBSA-13-Q-30. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
30									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.



# EXPLORATION LOG

## DBSA 13

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

**BORING LOCATION: SEE FIGURE 2**

**EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE**

**ELEVATION:** EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1

**EXPLORATION DATE:** 10-19-07

EQUIPMENT: SONIC DRILL RIG

LOGGED BY: R. COOKE

**INITIAL DEPTH TO WATER: NOT ENCOUNTERED**

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <div style="position: relative; height: 100%; border-left: 1px solid black; border-right: 1px solid black;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 10px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> <div style="position: absolute; top: 100%; left: 0; right: 0; height: 10px; background: repeating-linear-gradient(-45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> <div style="flex: 1; margin: 0 5px;"> <div style="position: relative; height: 100%; border-left: 1px solid black; border-right: 1px solid black;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 10px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> <div style="position: absolute; top: 100%; left: 0; right: 0; height: 10px; background: repeating-linear-gradient(-45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> </div> <div style="flex: 1;"> <div style="position: relative; height: 100%; border-left: 1px solid black; border-right: 1px solid black;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 10px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> <div style="position: absolute; top: 100%; left: 0; right: 0; height: 10px; background: repeating-linear-gradient(-45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> </div> </div> <div style="margin-top: 10px;"> <div style="display: flex; align-items: center;"> <div style="flex: 1; border-left: 1px solid black; border-right: 1px solid black; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 10px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> <div style="position: absolute; top: 100%; left: 0; right: 0; height: 10px; background: repeating-linear-gradient(-45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> <div style="flex: 1; margin: 0 5px;"> <div style="position: relative; height: 100%; border-left: 1px solid black; border-right: 1px solid black;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 10px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> <div style="position: absolute; top: 100%; left: 0; right: 0; height: 10px; background: repeating-linear-gradient(-45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> </div> <div style="flex: 1;"> <div style="position: relative; height: 100%; border-left: 1px solid black; border-right: 1px solid black;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 10px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> <div style="position: absolute; top: 100%; left: 0; right: 0; height: 10px; background: repeating-linear-gradient(-45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> </div> </div> </div></div>									
32.5		GW	Reddish brown (5 YR 4/3), well graded GRAVEL, dry, and very dense. Gravel consists of 80% basalt and andesite, 20% latite, dacite, and trachyte. ...4" subangular basalt cobble.						
35									
37.5									
40			...collect DBSA-13-Q-40. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
42.5									
45									
47.5		SC	Reddish brown (5 YR 4/3), clayey SAND with gravel, moist and very dense.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

**Figure No. 12**

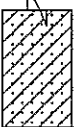


# EXPLORATION LOG DBSA 13

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-19-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50			...47' to 49' is weathered, brittle gravel/ cobble (basalt).						
52.5		SW	...collect DBSA-13-Q-50. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Reddish brown (5 YR 4/4), well graded SAND with gravel, dry and very dense. Light reddish brown (2.5 YR 6/4) oxidation coatings on gravel. Gravel is weathered and brittle, dominantly andesite and basalt.						
55									
57.5									
60			...5" subangular basalt cobble.  ...collect DSA-13-Q-60. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
62.5									

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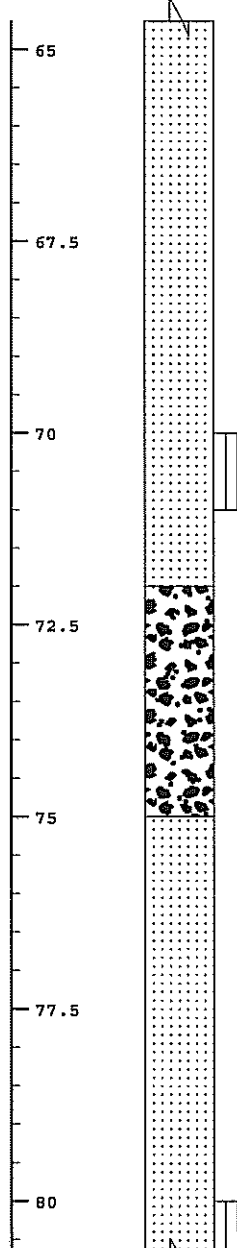
# EXPLORATION LOG DBSA 13

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-19-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65			...4" sub-rounded basalt cobble.  ...collect DBSA-13-Q-70. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
67.5									
70									
72.5		GW	Reddish brown (5 YR 4/4), well graded GRAVEL with sand, dry and very dense.						
75		SW	Reddish brown (5 YR 4/4), well graded SAND with gravel, dry and very dense.						
77.5									
80			...collect DBSA-13-Q-80. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

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# EXPLORATION LOG DBSA 13

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-19-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
82.5									
85		GW	Brown (7.5 YR 5/3), well graded GRAVEL with sand, dry and very dense.  ...weakly cemented to 91'.  ...with coarse gravel up to 2" diameter and cobbles.  ...collect DBSA-13-Q-90. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
87.5									
90		SW	Brown (7.5 YR 4/4), well graded SAND with gravel, dry and very dense.						
92.5									
95									

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# EXPLORATION LOG DBSA 13

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-19-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
97.5			...weakly cemented to 98'.						
		GW	Brown (7.5 YR 4/4), well graded GRAVEL with sand, dry and very dense.						
100		SW	Brown (7.5 YR 4/4), well graded SAND with gravel, dry and very dense. ...collect DBSA-13-Q-100. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
102.5									
105		SW	...borderline well graded gravel (GW) (approximately 40 % gravel). Course, angular to subangular basalt gravel (2" to 3"). ...SW/GW to 110'. ...6" subangular basalt cobble.						
107.5									
110		SW	...collect DBSA-13-Q-110. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
112.5			...105' to 120': Gravel consists of 20-30% angular basalt and andesite (80% of gravel) and 20% dacite and latite. 65-70%						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

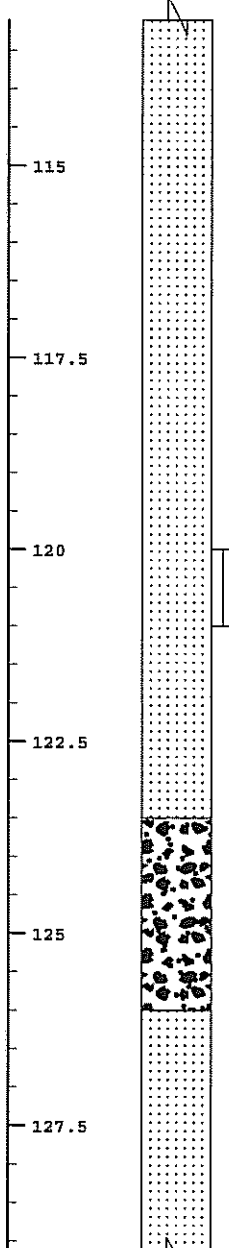

# EXPLORATION LOG DBSA 13

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-19-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
115			sand (poorly sorted), medium to coarse sand. 5% Fines (silt).						
117.5			...4"-5" subangular basalt cobble with white (10 YR 8/1) carbonate cement coating.						
120			...4"-5" diameter subangular basalt cobble.						
122.5			...collect DBSA-13-Q-120 and DBSA-13-Q 120-FD. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...some basalt gravel is slightly chloritic (micro-chrystalline), 1- 3 % mica: .						
125		GW	Brown (5 YR 4/4), well graded GRAVEL with sand, trace mica, dry and very dense. ...4" diameter subangular basalt cobble.						
127.5		SW	Brown (5 YR 4/4), well graded SAND with gravel, dry and very dense. ...6" diameter subangular basalt cobble.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG DBSA 13

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-19-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
130			...collect DBSA-13-Q-130. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
132.5		GW	...mica - 1/16" diameter plates to 135' bgs. Brown (5 YR 4/4), well graded GRAVEL with sand, trace mica, dry and very dense.  ...white (10 YR 8/1) caliche coatings and veins in gravel. Light greenish gray (Gley 1 7/1) coating on gravel (chloritic).  ...weakly cemented to 140'. ...subangular basalt cobble, trace mica (1%).						
135									
137.5									
140		SW	...collect DBSA-13-Q-140. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Brown (5 YR 4/4), well graded SAND with gravel, dry and very dense.						
142.5									
145									

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# EXPLORATION LOG DBSA 13

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 10-19-07

EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE

EQUIPMENT: SONIC DRILL RIG

ELEVATION: EXISTING GROUND SURFACE

LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
147.5									
150			...collect DBSA-13-Q-150. PIDs: 10.6, 11.7 = eV = 0.0 ppmV.						
152.5		GW	Light reddish brown (5 YR 6/4) to dark reddish brown (5 YR 4/2), well graded GRAVEL with sand, few cobbles (basalt), dry, weakly to moderately cemented and hard.						
155		SW	Reddish brown (5 YR 5/3) well graded SAND with gravel, trace mica (less than 1%), dry, and very dense.						
157.5			...weakly cemented sand and gravel.						
160			...collect DBSA-13-Q-160. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
			END OF BORING AT 160.0 FEET						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 12

# EXPLORATION LOG DSBA 14

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-09-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: NA  
DATE MEASURED: NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0									
		PAVE	Dark gray ASPHALT 3.0 inches thick.						
		FILL	Brown (7.5 YR 4/4) silty SAND, few gravel, moist. 5% gravel (angular to subrounded), 85% sand (poorly sorted), 10% fines.						
2.5		SM	Brown (7.5 YR 4/4) silty SAND, few gravel, moist and dense.						
			...boring cleared with air knife to 5'.						
5		SW	...collect DBSA-14-Q-5. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Brown (7.5 YR 4/3) well graded SAND with gravel, dry and dense. 15% gravel (angular to subangular basalt and andesite), gravel diameter up to 2.5".						
7.5									
10			...collect DBSA-14-Q-10. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
12.5									
15			...15' to 18': few cobbles to 6" diameter (subrounded basalt and subangular andesite).						

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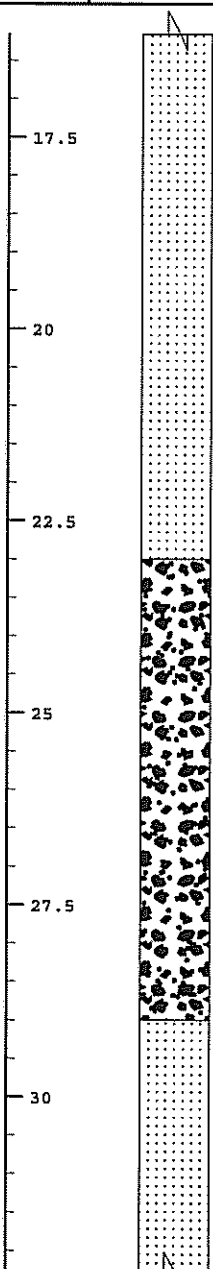
# EXPLORATION LOG DSBA 14

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-09-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: NA  
DATE MEASURED: NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5			...collect DBSA-14-Q-20 PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...20-25% gravel.						
20		GW	Brown (7.5 YR 5/3) well graded GRAVEL with sand, dry and very dense. Course gravel up to 2.5" diameter. Trace cobbles up to 3.5" diameter.						
22.5		SW	Brown (7.5 YR 5/3) well graded SAND with gravel, dry and very dense. ...collect DBSA-14-Q-30 PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
25									
27.5									
30									

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**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 13

# EXPLORATION LOG DSBA 14

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 10-09-07

EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE

EQUIPMENT: SONIC DRILL RIG

ELEVATION: EXISTING GROUND SURFACE

LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: NA

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5									
		GW	Brown (7.5 YR 5/3) well graded gravel with						
		SW	sand, dry and very dense.						
35			Brown (7.5 YR 5/3) well graded SAND with						
			gravel, dry and very dense.						
			...reddish brown (5 YR 4/4)						
			...gravel decreases to 10%. 90% sand,						
			trace (1%) fines.						
37.5									
		SP	Reddish brown (5 YR 5/3) poorly graded						
			SAND, few gravel, dry and very dense.						
40			...collect DBSA-14-Q-40 PIDs: 10.6, 11.7						
			eV = 0.0 ppmV.						
		SW	Reddish brown (5 YR 5/4) well graded						
			SAND, few gravel, dry and very dense.						
42.5									
45									
47.5									
			...2" thick weakly cemented sand layer.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 13

# EXPLORATION LOG

## DSBA 14

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

**BORING LOCATION: SEE FIGURE 2**

**EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE**

**ELEVATION:** EXISTING GROUND SURFACE

**PROJECT NO.: 20072226V1**

**EXPLORATION DATE:** 10-09-07

EQUIPMENT: SONIC DRILL RIG

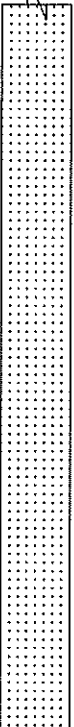

LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: NA

DATE MEASURED: NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50   52.5   55   57.5			<p>...collect DBSA-14-Q-50, DBSA-14-Q-50-FD, DBSA-14-Q-50-MS/MSD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...3"-4" diameter subangular basalt cobbles to 55' bgs. Cobbles comprise 10-15% of soil in this depth range. Soil is moist.</p>						
60   62.5		GW	<p>Reddish brown (5 YR 5/4) well graded GRAVEL with sand, dry and very dense.</p> <p>...collect DBSA-14-Q-60 PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 13

# EXPLORATION LOG DSBA 14

**PROJECT:** BRC DEEP BACKGROUND INVESTIGATION

**PROJECT NO.:** 20072226V1

**BORING LOCATION:** SEE FIGURE 2

**EXPLORATION DATE:** 10-09-07

**EXPLORATION SIZE (dia.):** 6.0" CARBIDE TIP SHOE

**EQUIPMENT:** SONIC DRILL RIG

**ELEVATION:** EXISTING GROUND SURFACE

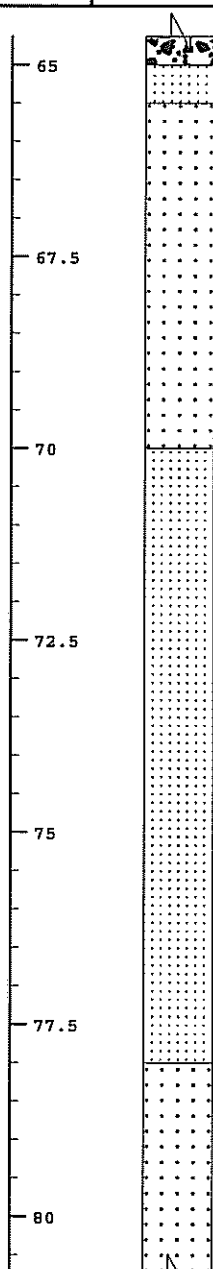
**LOGGED BY:** R. COOKE

**INITIAL DEPTH TO WATER:** NOT ENCOUNTERED

**DATE MEASURED:** NA

**FINAL DEPTH TO WATER:** NOT ENCOUNTERED

**DATE MEASURED:** NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65		SW	Reddish brown (5 YR 5/4) well graded SAND with gravel, dry and very dense.						
67.5		SP	Reddish brown (5 YR 5/4) poorly graded SAND, few gravel, dry and very dense. 5-10% gravel (angular to subangular andesite and basalt), 85% sand (well sorted), 5% fines.						
70		SW	...collect DBSA-14-Q-70 PIDs: 10.6, 11.7 eV = 0.0 ppmV. Reddish brown (5 YR 5/4) well graded SAND with gravel, dry and very dense. 20% gravel (angular to subangular andesite and basalt), 75% sand (poorly sorted), 1-5% fines.						
72.5									
75									
77.5									
80		SP	Reddish brown (5 YR 5/4) poorly graded SAND little gravel, dry and very dense. 5-10% gravel (angular to subangular andesite and basalt), 85% sand (well sorted), 5% fines. ...collect DBSA-14-Q-80 PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 13

# EXPLORATION LOG DSBA 14

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 10-09-07

EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE

EQUIPMENT: SONIC DRILL RIG

ELEVATION: EXISTING GROUND SURFACE

LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: NA

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
82.5		SW	Reddish brown (5 YR 5/4) well graded SAND with gravel, dry and very dense.						
85		GW	Reddish brown (5 YR 5/4) well graded GRAVEL with sand, dry and very dense.						
87.5									
90			...3" diameter andesite cobble with chloritic inclusions. ...collect DBSA-14-Q-90 PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
92.5		SW	Reddish brown (5 YR 5/4) well graded SAND with gravel, dry and very dense.						
95									

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 13



# EXPLORATION LOG DSBA 14

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 10-09-07

EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE

EQUIPMENT: SONIC DRILL RIG

ELEVATION: EXISTING GROUND SURFACE

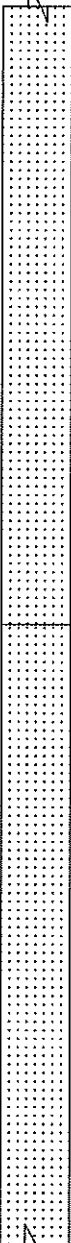
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: NA

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
97.5 100 102.5 105 107.5 110 112.5			<p>...slight increase in soil moisture to 98.5'.</p> <p>...collect DBSA-14-Q-100. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						
		SW	<p>Reddish brown (5 YR 5/4) well graded SAND with gravel, dry and very dense.</p> <p>...collect DBSA-14-Q-110 PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 13

# EXPLORATION LOG DSBA 14

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 10-09-07

EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE

EQUIPMENT: SONIC DRILL RIG

ELEVATION: EXISTING GROUND SURFACE

LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: NA

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
115									
117.5		GW	<p>Reddish brown (5 YR 5/4) well graded GRAVEL with sand, dry and very dense.</p> <p>...collect DBSA-14-Q-120 PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...trace 3" diameter cobbles (subangular basalt).</p>						
120									
122.5		SW	<p>Reddish brown (5 YR 5/4) well graded SAND with gravel, dry and very dense.</p> <p>...moist to 127'.</p> <p>...multiple weakly cemented sand layers 1" to 2" thick to 130'.</p>						
125									
127.5									

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 13

# EXPLORATION LOG

## DSBA 14

**PROJECT:** BRC DEEP BACKGROUND INVESTIGATION  
**BORING LOCATION:** SEE FIGURE 2  
**EXPLORATION SIZE (dia.):** 6.0" CARBIDE TIP SHOE  
**ELEVATION:** EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-09-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: NA  
DATE MEASURED: NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			<p>...collect DBSA-14-Q-130 PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...weakly cemented sand and gravel to 140'.</p> <p>...4" diameter subangular basalt cobble.</p> <p>4" diameter angular andesite cobble.</p> <p>...collect DBSA-14-Q-140 PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG

## DSBA 14

**BORING LOCATION: SEE FIGURE 2**

**ELEVATION:** EXISTING GROUND SURFACE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

LOGGED BY: R. COOKE

DATE MEASURED: NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div> <div> <div>147.5</div> <div>150</div> <div>152.5</div> <div>155</div> <div>157.5</div> <div>160</div> </div> <div> </div> </div>			<p>...15% gravel (angular to subangular andesite and basalt), 85% sand (poorly sorted), trace (1%) fines. No plasticity observed in field tests of soil.</p> <p>...collect DBSA-14-Q-150. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						
		GW	<p>...collect DBSA-14-Q-160. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>Light reddish brown (5 YR 6/3) well graded GRAVEL, some basalt cobbles, dry and very dense.</p>						
			END OF BORING AT 160.0 FEET						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG DSBA 15

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-06-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: NA  
DATE MEASURED: NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0									
		PAVE	Dark gray ASPHALT 3.25 inches thick.						
		FILL	Light brown (7.5 YR 6/4) silty SAND with gravel, moist.						
2.5		SM	Light brown (7.5 YR 6/4) silty SAND with gravel, moist and dense.						
5			...boring cleared with air knife to 5'.						
7.5		SM	...Sample DBSA-15-Q-5, PID's: 10.6 eV = 0.4 ppmv, 11.7 eV = 2.1 ppmv. Light brown (7.5 YR 6/4) silty Sand with gravel, (approximately 25% gravel (poorly graded, subrounded, approximately 30% medium gravel, 70% fine gravel), approximately 20% silt, 60% sand (well-graded, subrounded, approximately 30% course sand, 30% medium sand, 40% fine sand), moist and dense. Sand: approximately 20% mafics, 80% felsics. Gravel: approximately 30% rhyolite, 30% chloritic andesite, 20% basalt, 20% latite.						
10		SM	...Sample DBSA-15-Q-10. PID's: 10.6 eV = 0.0 ppmv, 11.7 eV = 0.0 ppmv. Light brown (7.5 YR 6/4) silty SAND (approximately 10% gravel (poorly graded, angular (planar), approximately 50% medium gravel, 50% fine gravel), approximately 20% silt, 70% sand (well-graded, subangular, approximately 40% course sand, 20% medium sand, 40% fine sand), moist and very dense.						
12.5		SP-SM	Reddish yellow (7.5 YR 6/6) poorly graded SAND with silt (approximately 10% gravel (poorly graded, angular, approximately 50% medium gravel, 50% fine grain), 10% silt, 80% sand (subrounded, approximately						
15									

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 14

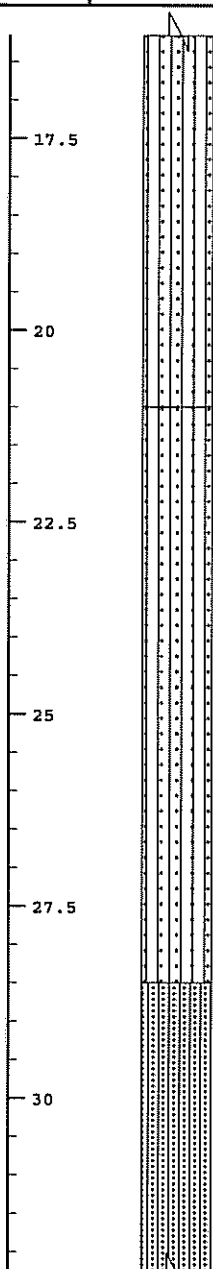
# EXPLORATION LOG DSBA 15

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-06-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: NA  
DATE MEASURED: NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5			30% coarse sand, 10% medium sand, 70% fine sand), moist and very dense. Sand: approximately 15% mafics, 85% felsics. Gravel: approximately 30% dacite, 70% basaltic andesite, at 15.5', basalt (vesicular, plagioclase); caliche coats gravel clasts. ... "skip" graded (approximately 5% sand) ...Samples DSBA-15-Q-20, DSBA-15-Q-20- FD. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
20		SP-SM	...same as above, except: Gravel is approximately 90% basalt, 10% dacite, weakly cemented in banded layers.						
22.5									
25									
27.5									
30		SM	Reddish yellow (7.5 YR 6/6) silty SAND with gravel (approximately 15-20% gravel (well-graded, angular, approximately 30% coarse gravel, 30% medium gravel, 40% fine gravel), approximately 20% silt, 60% sand (poorly-graded ("skip" graded), subrounded, approximately 20% coarse sand, 10% medium sand, 70% fine sand), moist and very dense. Sand:						

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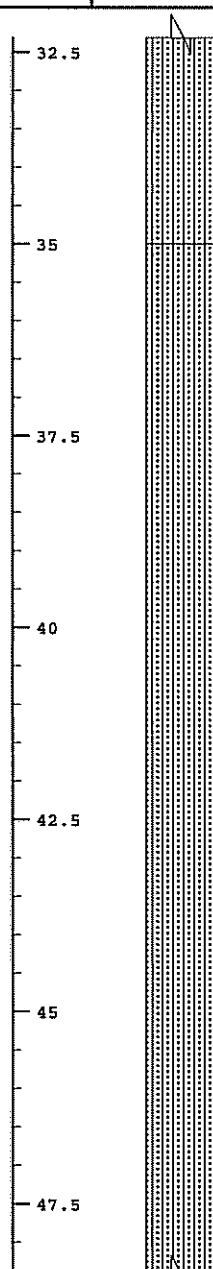
# EXPLORATION LOG DSBA 15

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-06-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: NA  
DATE MEASURED: NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5			approximately 5% mafics 95% felsics. Gravel: approximately 80% basalt, 10% dacite, 10% latite. ...collect sample DBSA-15-Q-30PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
35		SM	Light yellowish brown (10YR 6/4) silty SAND (approximately 10% gravel (poorly graded, angular, approximately 100% fine gravel), approximately 20% silt, 70% sand (poorly graded ("Skip" graded), subrounded, approximately 30% coarse sand, 10% medium sand, 60% fine sand), moist and very dense. Sand: approximately 10% mafics, 90% felsics. Gravel: approximately 20% dacite, 80% basalt. ...weakly to moderately cemented.  ...Sample DBSA-15-Q-40. PID's: 10.6 eV= 0.4 ppmv, 11.7 eV = 2.1 ppmv. ...uncemented.   ...salt or caliche coats gravel clasts.						
37.5									
40									
42.5									
45									
47.5									

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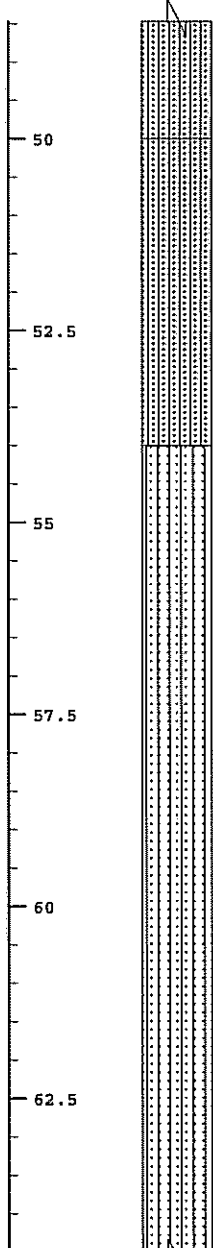
# EXPLORATION LOG DSBA 15

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-06-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: NA  
 DATE MEASURED: NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50		SM	...Sample DSBA-15-Q-50. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv. ; same as before, with minor encrustations of caliche/salt on gravel.						
52.5		SW-SM	Light brown (7.5 YR 6/3) well-graded SAND with silt and gravel (approximately 20% gravel (well-graded, angular, approximately 30% coarse gravel, 30% medium gravel, 40% fine gravel), approximately 10% silt, 70% sand (subrounded-subangular, approximately 30% coarse sand, 25% medium sand, 45% fine sand)), moist and very dense. Sand: approximately 10% mafics (as basalt), 90% felsics. Gravel: approximately 70% basalt, 20% andesite (basaltic), 5% dacite, 5% green chloritic andesite. Weakly cemented in small calcite nodules. ...Sample DBSA-15-Q-60. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.; Gravel content increases to approximately 30-40%, consists of approximately 40% basalt, 20% dacite, 20% basaltic andesite, and 20% chloritic andesite. 0.25"-0.5" thick layers of weakly cemented caliche at 60'.						
55									
57.5									
60									
62.5									

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# EXPLORATION LOG DSBA 15

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-06-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: NA  
 DATE MEASURED: NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65									
67.5		SM	Strong brown (7.5 YR 4/6) silty SAND (approximately 30% silt, 70% sand (poorly-graded, subangular to subrounded, approximately 30% coarse sand, 5% medium sand, 65% fine sand), moist. Sand: approximately 5% mafics, 95% felsics.						
70		SM	Strong brown (7.5 YR 4/6) silty SAND with gravel (approximately 40% gravel, well-graded, angular, approximately 30% coarse gravel, 30% medium gravel, 40% fine gravel), approximately 20% silt, 40% sand, (poorly-graded, subrounded, approximately 20% coarse sand, 5% medium sand, 75% fine sand), moist and weakly cemented. Sand: approximately 10% mafics, 90% felsics. Gravel: approximately 60% basalt, 40% andesite ...Sample DBSA-15-Q-70. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
72.5		GW-GM	Light brown (7.5 YR 6/4) well-graded GRAVEL with silt and sand (approximately 10% silt, 30% sand (poorly-graded ("skip" graded), subrounded, approximately 20% coarse sand, 5% medium sand, 75% fine sand), approximately 60% gravel (angular, approximately 30% cobbles/boulders, 30% medium gravel, 40% fine gravel), moist and very dense. Gravel has approximately 60% basalt, 30% trachyte (propylitically altered), approximately 10% andesite. Sand: approximately 10% mafics, 90% felsics. ...from 77.5-81': laminated bed of silty sand with gravel (approximately 40% gravel (angular, well-graded), 60% sand (subrounded, poorly-graded), becomes weakly cemented at 80'.						
75									
77.5									
80									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.


# EXPLORATION LOG DSBA 15

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-06-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: NA  
 DATE MEASURED: NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
82.5		GW-GM	<p>...Sample DBSA-15-Q-80. PID's: 10.6 eV = 0.0 ppmv, 11.7 eV = 0.0 ppmv.            ...similar to that encountered at 70' above.</p> <p>...weakly to moderately cemented from 83'-85'; has 1'-2' beds of alternating flood deposits of well graded gravel with silt (GW-GM) and silty sand (SM).</p>						
85		SM	<p>Light brown (7.5 YR 6/4) silty SAND with gravel (approximately 40% gravel (well-graded, angular, approximately 5% cobbles/boulders, 30% coarse gravel, 35% medium gravel, 30% fine gravel), approximately 20% silt, 40%-50% sand (subrounded, poorly-graded, approximately 30% coarse sand, 70% medium sand, 60% fine sand), moist and very dense. Gravel and sand have compositions similar to the soil at 75'.</p> <p>...Sample DBSA-15-Q-90. PID's: 10.6 eV = 0.0 ppmv, 11.7 eV = 0.0 ppmv.</p>						
87.5		SM	<p>Light brown (7.5 YR 6/4) silty SAND (approximately 5% gravel (poorly-graded, angular, 100% fine gravel), approximately 20% silt, 75% sand (poorly-graded, subrounded, approximately 10% course</p>						
90									
92.5									
95									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG

## DSBA 15

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

**BORING LOCATION: SEE FIGURE 2**

**EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE**

**ELEVATION:** EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1

**EXPLORATION DATE:** 10-06-07

**EQUIPMENT:** SONIC DRILL RIG

LOGGED BY: R. COOKE

**INITIAL DEPTH TO WATER: NOT ENCOUNTERED**

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: NA

DATE MEASURED: NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div> <div> <div>97.5</div> <div>100</div> <div>102.5</div> <div>105</div> <div>107.5</div> <div>110</div> <div>112.5</div> </div> </div>			<p>sand, 10% medium sand, 80% fine sand), moist and very dense. Sand: approximately 10% mafics, 90% felsics. Gravel: approximately 100% basalt. ...sequence is thinly-bedded to laminated. ...moderately cemented (99'-101'). ...sample DBSA-15-Q-100. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.</p> <p>...sample DBSA-15-Q-110. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv. ; same sediments as at 95'; weakly-moderately cemented layers occur at approximately every 1.5'-2.0'.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG DSBA 15

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 10-06-07

EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE

EQUIPMENT: SONIC DRILL RIG

ELEVATION: EXISTING GROUND SURFACE

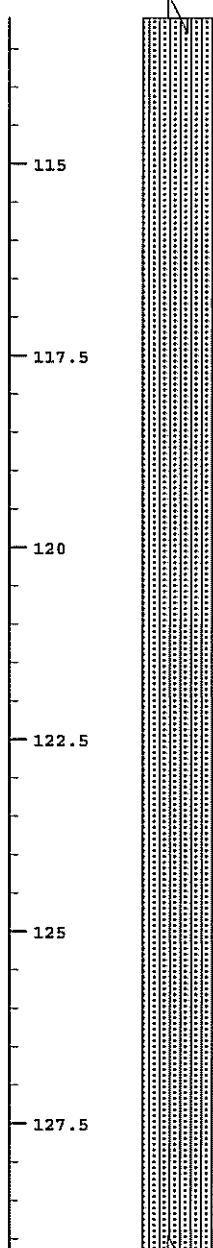
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: NA

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			<p>...Sample DBSA-15-Q-120, -120-FD, -120 MS/MSD. PIDs: 10.6, 11.7 eV= 0.0 ppmV. Sediments are the same as described at 95', weakly cemented silty SAND with gravel. Gravel consists of angular volcanics, sand is poorly-graded.</p> <p>...weakly to moderately cemented sand with gravel.</p>						

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**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 14

# EXPLORATION LOG

## DSBA 15

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

**BORING LOCATION: SEE FIGURE 2**

**EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE**

**ELEVATION:** EXISTING GROUND SURFACE

**PROJECT NO.:** 20072226V1

**EXPLORATION DATE:** 10-06-07

EQUIPMENT: SONIC DRILL RIG

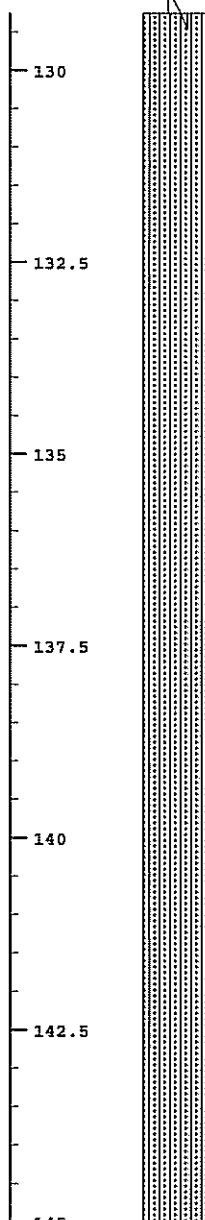
LOGGED BY: R. COOKE

**INITIAL DEPTH TO WATER: NOT ENCOUNTERED**

**FINAL DEPTH TO WATER:** NOT ENCOUNTERED

**DATE MEASURED:** NA

DATE MEASURED: NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			<p>...sampled DBSA-15-Q-130. PIDs: 10.6, 11.7 eV= 0.0 ppmV. ...uncemented at 130'.</p> <p>...weakly cemented.</p> <p>...borderline well graded gravel (GW). ...sampled DBSA-15-Q-140. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv. ...Increasing gravel percent to 35%. 5" basalt cobble at 140". Gravel is course (up to cobble size) and subangular to angular, sand is poorly graded.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

# EXPLORATION LOG DSBA 15

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 10-06-07

EXPLORATION SIZE (dia.): 6.0" CARBIDE TIP SHOE

EQUIPMENT: SONIC DRILL RIG

ELEVATION: EXISTING GROUND SURFACE

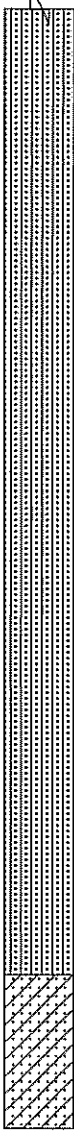
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: NA

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: NA

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
147.5			...weakly cemented. ...sampled DBSA-15-Q-150. PIDs: 10.6, 11.7 eV= 0.0 ppmV. 15-20% gravel (angular to subangular andesite and basalt), 75% sand (poorly-sorted), 5% fines. Gravel is dominantly basalt with accessory andesite, dacite.						
150									
152.5									
155			...3" basalt cobble.						
157.5		SW-SC	Reddish brown (2.5 YR 4/3) well graded SAND with clay, moist and very dense. Gravel size decrease to 1/2"-3/4". Gravel percentage= 10% subangular to angular.						
160			...Sampled DBSA-15-Q-160. PIDs 10.6, 11.7 eV= 0.0 ppmV. <b>END OF BORING AT 160.0 FEET</b>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made.  
It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG DBSA 17

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-04-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 140' BELOW GROUND SURFACE DATE MEASURED: 10-05-07  
 FINAL DEPTH TO WATER: NOT MEASURED DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		PAVE	Dark gray ASPHALT 2.0 inches thick.						
		FILL	Reddish brown (5 YR 3/2), silty SAND with gravel, dry. 30% gravel (angular to subangular andesite and basalt) 55% sand (poorly sorted), 15% fines.						
2.5		SM	Reddish brown (5 YR 3/2), silty SAND with gravel, dry and dense.  ...boring cleared with air knife to 5'.  ...dark reddish brown (5 YR 3/2).						
5		SW	Dark reddish brown (5 YR 3/2), well graded SAND with gravel, dry and very dense. ...collect DBSA-17-Q-5. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...15% gravel (angular to subangular), 75% sand (poorly sorted), 5-10% fines. 5-10%.  ...weak red (2.5 YR 4/2). ...collect DBSA-17-Q-10. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...5% gravel, 90% sand, 5% fines.  ...multiple thin (1" thick) weakly cemented layers.						
7.5									
10									
12.5									
15									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.



# EXPLORATION LOG

## DBSA 17

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

PROJECT NO.: 20072226V1

**BORING LOCATION: SEE FIGURE 2**

EXPLORATION DATE: 10-04-07

**EXPLORATION SIZE (dia.): 6" O.D. CARIDE TIP SHOE**

EQUIPMENT: SONIC DRILL RIG

**ELEVATION:** EXISTING GROUND SURFACE

LOGGED BY: R. COOKE

**INITIAL DEPTH TO WATER: 140' BELOW GROUND SURFACE DATE MEASURED: 10-05-07**

**FINAL DEPTH TO WATER:** NOT MEASURED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			<p>...thin (1" thick) weakly cemented layer.</p> <p>...collect DBSA-17-Q-20. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...reddish brown (5 YR 4/3), with 1" thick weakly cemented sand layers.</p>						
			<p>...collect DBSA-17-Q-30. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...dark reddish brown (5 YR 4/2), with 1" thick weakly cemented layers of sand.</p>						

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**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

**Figure No. 15**

# EXPLORATION LOG

## DBSA 17

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

PROJECT NO.: 20072226V1

**BORING LOCATION:** SEE FIGURE 2

**EXPLORATION DATE:** 10-04-07

**EXPLORATION SIZE (dia.):** 6" O.D. CARIDE TIP SHOE

EQUIPMENT: SONIC DRILL RIG

**ELEVATION:** EXISTING GROUND SURFACE

LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 140' BELOW GROUND SURFACE DATE MEASURED: 10-05-07

FINAL DEPTH TO WATER: NOT MEASURED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div> <div>32.5</div> <div>35</div> <div>37.5</div> <div>40</div> <div>42.5</div> <div>45</div> <div>47.5</div> </div>			<p>...collect DBSA-17-Q-40. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...1" thick weakly cemented sand layers.</p> <p>...1" thick weakly cemented sand layers.</p>						

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**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

**Figure No. 15**

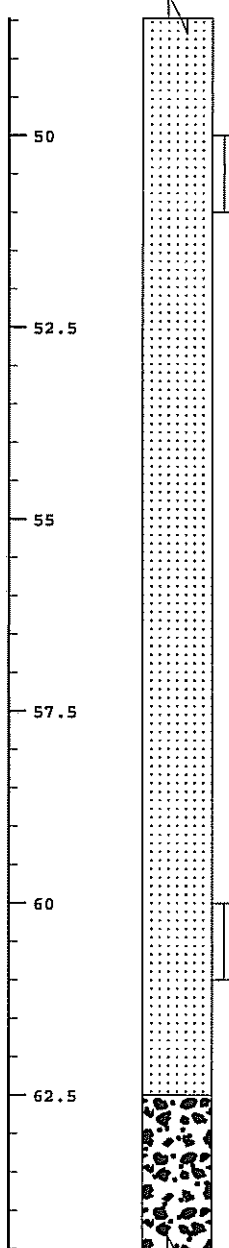

# EXPLORATION LOG DBSA 17

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-04-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 140' BELOW GROUND SURFACE  
FINAL DEPTH TO WATER: NOT MEASURED

DATE MEASURED: 10-05-07  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50			...reddish brown (5 YR 5/3). ...collect DBSA-17-Q-50. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...15-20% gravel (angular to subangular basalt and andesite), 65% sand (poorly sorted), 10-15% fines. ...moist.						
52.5			...dry.						
55			...weakly cemented, moist from 56'-57'.						
57.5			...collect DBSA-17-Q-60. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...moist to 64'. ...increasing gravel size from 1" to 2.5".						
60									
62.5		GW	Reddish brown (5 YR 5/3), well graded GRAVEL with sand, moist, and very dense. 55% gravel, 30% sand, 10-15% fines. ...moist to 64'.						

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# EXPLORATION LOG DBSA 17

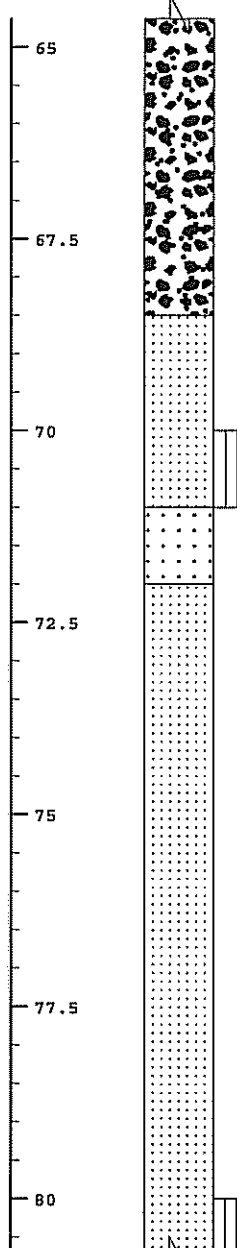
PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-04-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 140' BELOW GROUND SURFACE DATE MEASURED: 10-05-07

FINAL DEPTH TO WATER: NOT MEASURED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65			...general gravel size decreases to approximately 1" in diameter.						
67.5									
70		SW	Reddish brown (5 YR 5/3), well graded SAND with gravel, dry and very dense.  ...collect DBSA-17-Q-70. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
72.5		SP	Reddish brown (5 YR 5/3), poorly graded SAND, few gravels, moist and very dense.						
75		SW	Reddish brown (5 YR 5/3), well graded SAND with gravel, dry and very dense.  ...weakly cemented to 75'. ...moist to 77'.						
77.5									
80			...collect DBSA-17-Q-80, DBSA-17-Q-80-DUP, and DBSA-17-Q-80-MS/MSD						

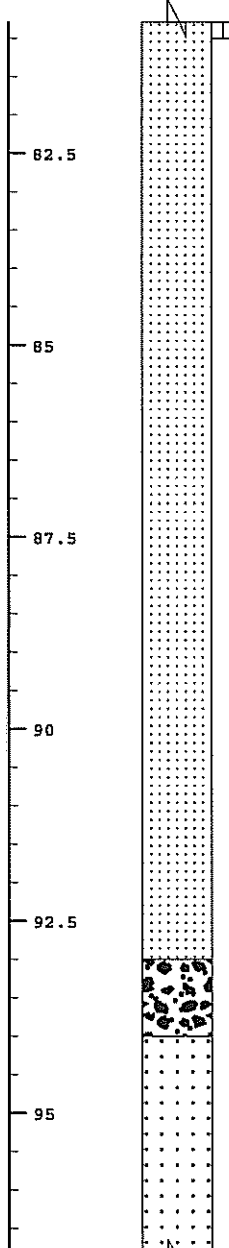
The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG DBSA 17

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-04-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 140' BELOW GROUND SURFACE DATE MEASURED: 10-05-07  
 FINAL DEPTH TO WATER: NOT MEASURED DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			PIDs: 10.6, 11.7 eV = 0.0 ppmV.  ...moist.  ...moist to 89'.						
		GW	Reddish brown (5 YR 5/3), well graded GRAVEL with sand, dry and very dense.						
		SP	Reddish brown (5 YR 5/3), poorly graded SAND, few gravel, moist, and very dense. 5% gravel (angular to subangular andesite and basalt), 90% Sand (fine sand to medium sand), 5% fines.						

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# EXPLORATION LOG DBSA 17

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 10-04-07

EXPLORATION SIZE (dia.): 6" O.D. CARIDE TIP SHOE

EQUIPMENT: SONIC DRILL RIG

ELEVATION: EXISTING GROUND SURFACE

LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 140' BELOW GROUND SURFACE DATE MEASURED: 10-05-07

FINAL DEPTH TO WATER: NOT MEASURED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
97.5									
100			...collect DBSA-17-Q-100. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
102.5		SW	Reddish brown (5 YR 5/3), well graded SAND with silt and gravel, moist and very dense.						
105									
107.5									
110			...andesite cobble 3" in diameter. ...collect DBSA-17-Q-110. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
112.5									

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GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 15

# EXPLORATION LOG

## DBSA 17

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

**PROJECT NO.:** 20072226V1

**BORING LOCATION: SEE FIGURE 2**

EXPLORATION DATE: 10-04-07

**EXPLORATION SIZE (dia.): 6" O.D. CARIDE TIP SHOE**

EQUIPMENT: SONIC DRILL RIG

**ELEVATION:** EXISTING GROUND SURFACE

LOGGED BY: R. COOKE

**INITIAL DEPTH TO WATER:** 140' BELOW GROUND SURFACE **DATE MEASURED:** 10-05-07

**FINAL DEPTH TO WATER:** NOT MEASURED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div> <div>115</div> <div>117.5</div> <div>120</div> <div>122.5</div> <div>125</div> <div>127.5</div> </div>			<p>...moist to 117'.</p> <p>...collect DBSA-17-Q-120. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...15% gravel (angular to subangular andesite and basalt), 75% sand (poorly sorted), 10% fines.</p> <p>...hard layer, slow drilling.</p> <p>...reddish brown (5 YR 4/3).</p>						

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**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

**Figure No. 15**

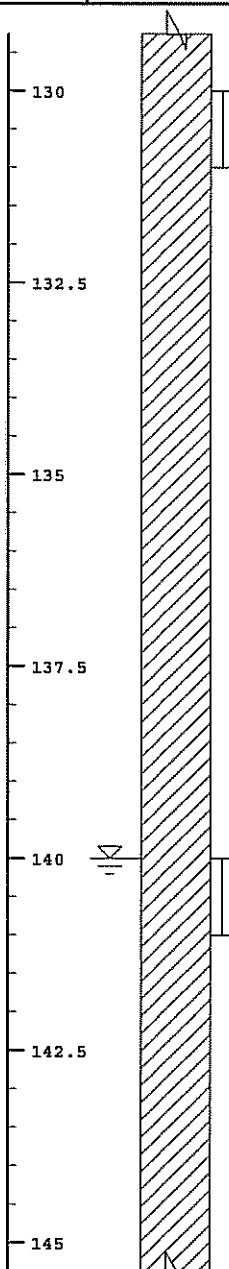
# EXPLORATION LOG DBSA 17

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-04-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 140' BELOW GROUND SURFACE  
FINAL DEPTH TO WATER: NOT MEASURED

DATE MEASURED: 10-05-07  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
		CL	<p>MUDDY CREEK FORMATION: Reddish brown (5 YR 5/3), sandy lean CLAY, moist and very stiff. Clay at 129' to 130' is crudely layered and contained fine layers (1/8" thick) of red (10YR 4/8) weathered mineralization, also white (10 YR 8/1) salt coatings on weakly cemented layers. ...collect DBSA-17-T-130. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...scattered thin deposits of altered mineralization, variably colored.</p> <p>...wet. ...collect DBSA-17-T-140. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						

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**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 15



# EXPLORATION LOG DBSA 17

**PROJECT:** BRC DEEP BACKGROUND INVESTIGATION

**PROJECT NO.:** 20072226V1

**BORING LOCATION:** SEE FIGURE 2

**EXPLORATION DATE:** 10-04-07

**EXPLORATION SIZE (dia.):** 6" O.D. CARIDE TIP SHOE

**EQUIPMENT:** SONIC DRILL RIG

**ELEVATION:** EXISTING GROUND SURFACE

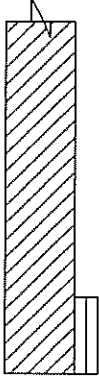
**LOGGED BY:** R. COOKE

**INITIAL DEPTH TO WATER:** 140' BELOW GROUND SURFACE

**DATE MEASURED:** 10-05-07

**FINAL DEPTH TO WATER:** NOT MEASURED

**DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
147.5			...collect DBSA-17-T-150. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
150			END OF BORING AT 150.0 FEET						
152.5									
155									
157.5									
160									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made.  
It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 15

# EXPLORATION LOG DBSA 20

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-03-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 84.7' BELOW GROUND SURFACE  
FINAL DEPTH TO WATER: NOT MEASURED

DATE MEASURED: 10-05-07  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		PAVE	Dark gray ASPHALT 2.25 inches thick.						
		FILL	Pale brown (10 YR 6/3), silty SAND with gravel, dry.						
2.5		SM	Pale brown (10 YR 6/3), silty SAND with gravel, dry and dense.  ...boring cleared with air knife to 5'.						
5		GM	Brown (7.5 YR 5/3), silty GRAVEL with sand, dry, and dense. 50% gravel (angular to subangular basalt, dacite, trace latite, trachyte, and andesite), 30% sand (poorly sorted), 10% fines. ...collect DBSA-20-Q-5. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
7.5									
10		SW	Pale brown (10 YR 6/3), well graded SAND with gravel, trace cobbles, dry and very dense. ...collect DBSA-20-Q-10. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...weakly cemented.						
12.5									
15			...25% gravel (angular to subangular andesite and basalt), 70% sand (poorly sorted), 5% fines.						

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**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

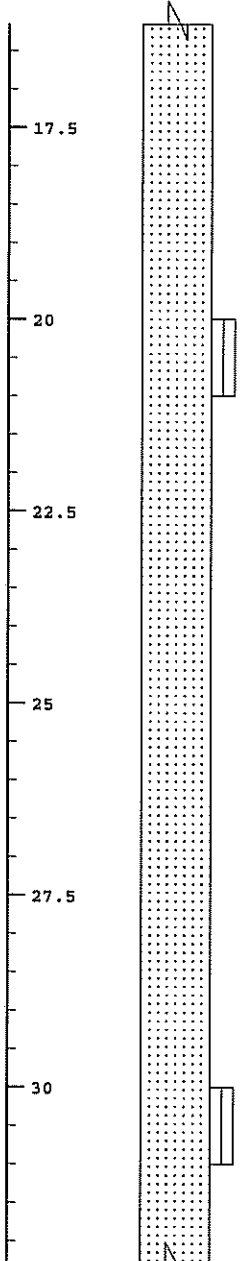
Figure No. 16

# EXPLORATION LOG DBSA 20

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-03-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 84.7' BELOW GROUND SURFACE DATE MEASURED: 10-05-07  
 FINAL DEPTH TO WATER: NOT MEASURED DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			<p>...collect DBSA-20-Q-20.                      PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...with cobbles 3.5" in diameter.</p> <p>...multiple thin (1/2" to 1') weakly                      cemented layers.                      ...collect DBSA-20-Q-30.                      PIDs: 10.6, 11.7 eV = 0.0 ppmV.                      ...white (10 YR 8/1) caliche layers, 1" thick.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made.  
 It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 16

# EXPLORATION LOG DBSA 20

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-03-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 84.7' BELOW GROUND SURFACE  
FINAL DEPTH TO WATER: NOT MEASURED

DATE MEASURED: 10-05-07  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">           32.5 35 37.5 40 42.5 45 47.5         </div> </div>			<p>...multiple thin (1/2" to 1") weakly cemented layers.</p> <p>...25% gravel (angular to subangular andesite and basalt), 65% sand (poorly sorted), 10% fines.</p> <p>...borderline silty gravel (GM) with 30-40% gravel.</p> <p>...collect DBSA-20-Q-40. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...15-20% gravel (angular to subangular andesite and basalt), 75% sand (poorly sorted), 5-10% fines.</p>						
		CL							

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**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 16

# EXPLORATION LOG DBSA 20

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-03-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 84.7' BELOW GROUND SURFACE  
FINAL DEPTH TO WATER: NOT MEASURED

DATE MEASURED: 10-05-07  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50			Pale brown (10 YR 6/3), sandy lean CLAY, moist and very stiff. ...white (10 YR 8/1) CALICHE gravel, 1/2" in diameter.						
		SC	Brown (7.5 YR 5/3), clayey SAND with gravel, moist, and very dense. ...collect DBSA-20-Q-50. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
52.5		SW	Brown (7.5 YR 5/3), well graded SAND with gravel, dry, weakly cemented and very dense.  ...15-20% gravel (angular to subangular andesite and basalt), 65-70% sand (poorly sorted), 5-10% fines.						
55									
57.5									
60			...collect DBSA-20-Q-60. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
62.5			...weakly cemented layer 2" thick.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG DBSA 20

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 10-03-07

EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE

EQUIPMENT: SONIC DRILL RIG

ELEVATION: EXISTING GROUND SURFACE


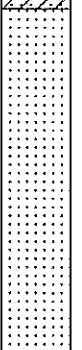

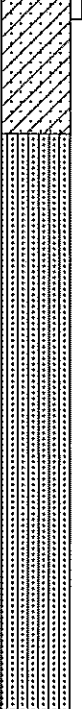

LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 84.7' BELOW GROUND SURFACE

DATE MEASURED: 10-05-07

FINAL DEPTH TO WATER: NOT MEASURED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65		SC	Brown (7.5 YR 5/3), clayey SAND with gravel, moist and very dense.						
67.5		SW	Brown (7.5 YR 5/3), silty SAND with gravel, moist and very dense.						
70		SC	Pale brown, clayey SAND with gravel, dry and very dense. Salt laminations within clayey sand layers. ...collect DBSA-20-Q-70. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
72.5		SM	Light brown, silty SAND with gravel, dry and very dense.  ...strong brown (7.5 YR 4/5). ...moist to 77'.  ...with 4" diameter andesite cobbles. Cobbles are subangular, comprising 30% of course material from 76'-77'.  ...reddish brown (5 YR 4/3). ...moist.						
75									
77.5									
80		SC	Reddish brown (5 YR 4/3), clayey SAND, trace gravel, moist, and very dense.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 16

# EXPLORATION LOG DBSA 20

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-03-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 84.7' BELOW GROUND SURFACE  
FINAL DEPTH TO WATER: NOT MEASURED

DATE MEASURED: 10-05-07  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
82.5			...collect DBSA-20-Q-80. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.  ...5-10% gravel (angular to subangular andesite and basalt), 60% sand (poorly sorted), 25-30% fines.						
85		CL	MUDDY CREEK FORMATION: Pale brown, sandy lean CLAY, moist and very stiff. ...reddish brown (5 YR 5/4).						
87.5									
90		SC	Reddish brown, clayey SAND, trace gravel, moist and very dense. ...collect DBSA-20-T-90 and DBSA-20-T-90-DUP. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
92.5		CL	Reddish brown, sandy lean CLAY, wet and very stiff.  ...moist.						
95									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG DBSA 20

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 10-03-07

EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE

EQUIPMENT: SONIC DRILL RIG

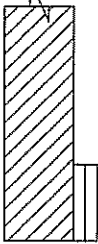
ELEVATION: EXISTING GROUND SURFACE

LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: 84.7' BELOW GROUND SURFACE DATE MEASURED: 10-05-07

FINAL DEPTH TO WATER: NOT MEASURED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
97.5			Reddish brown, clayey SAND, trace gravel, moist and very dense. ...collect DBSA-20-T-100. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
100			END OF BORING AT 100.0 FEET						
102.5									
105									
107.5									
110									
112.5									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 16



# EXPLORATION LOG DBSA 21

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 10-2-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		PAVE	Dark gray ASPHALT 2.5" thick.						
		FILL	Brown (7.5 YR 5/4), silty SAND with gravel, dry.						
2.5		SM	Brown (7.5 YR 5/4), silty SAND with gravel, dry and dense.  ...boring cleared with air knife to 5'.						
		CG	Brown (7.5 YR 5/4), cemented SAND and GRAVEL, some basalt cobbles, moist, weakly cemented and very dense.						
5		SM	Brown (7.5 YR 4/3), silty SAND with gravel, moist and very dense. 10-15% gravel (angular to subangular basalt and andesite), 80% sand (well sorted), 5% fines. ...collect DBSA-21-Q-5. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
7.5									
10			...collect DBSA-21-Q-10. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
12.5			...moderately cemented cobbles (basalt and andesite) to 13' bgs.						
15									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG

## DBSA 21

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

**BORING LOCATION: SEE FIGURE 2**

**EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE**

**ELEVATION:** EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1

**EXPLORATION DATE:** 10-2-07

EQUIPMENT: SONIC DRILL RIG

LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

**DATE MEASURED:** N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			<p>...brown (7.5 YR 5/3), dry.</p> <p>...collect DBSA-21-Q-20 and DBSA-21-Q-20-DUP. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...course, angular gravel and cobbles (andesite and basalt). 20% Gravel, 10% cobbles, 65% sand, 5% fines.</p> <p>...course, angular gravel and cobbles to 26' bgs.</p> <p>...multiple weakly cemented layers 1" to 2" thick to 37' bgs.</p> <p>...brown (7.5 YR 4/3). ...collect DBSA-21-Q-30. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

**Figure No. 17**

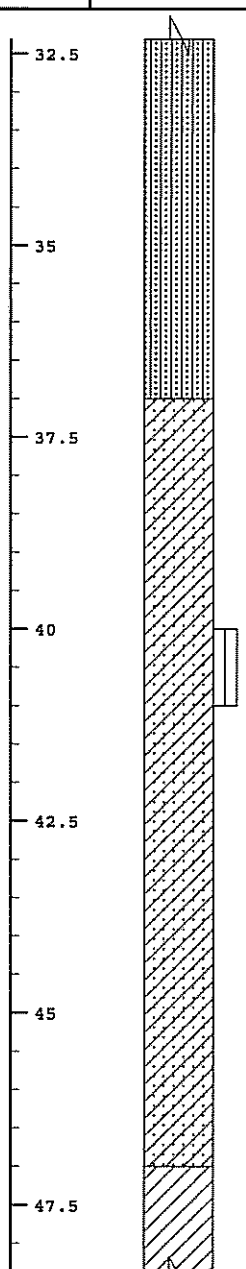
# EXPLORATION LOG DBSA 21

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-2-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5									
35									
37.5		SC	Brown (7.5 YR 5/3), clayey SAND with gravel, dry and very dense. Trace Pyrite.  ...pale brown (10 YR 6/3), weakly cemented. ...collect DBSA-21-Q-40. PIDs: 10.6, 11.7 eV = 0.0 ppmV.  ...laminated clayey sand layers with fine, white (10 YR 8/1) salt coatings.						
40									
42.5									
45									
47.5		CL	Pale brown (10 YR 6/3), sandy lean CLAY, trace gravel dry, and very stiff.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

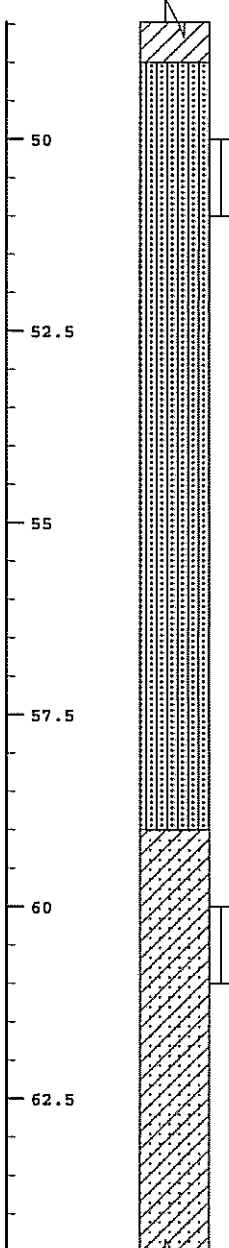
# EXPLORATION LOG DBSA 21

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-2-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50		SM	Brown (7.5 YR 5/4), silty SAND with gravel, dry, weakly cemented and very dense. ...collect DBSA-21-Q-50. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...red (2.5 YR 5/6), basalt cobble, volcanic, sub-rounded.						
52.5			...brown (7.5 YR 5/3), weakly cemented.						
55									
57.5									
60		SC	Brown (7.5 YR 5/4), clayey SAND, few gravel, moist and very dense. 5% Gravel (angular to subangular andesite and basalt), 80% sand (poorly sorted), 15% fines. ...collect DBSA-21-Q-60. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
62.5									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

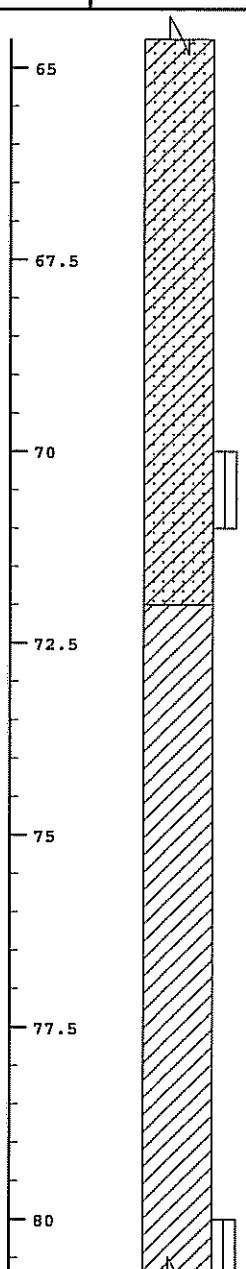
# EXPLORATION LOG DBSA 21

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-2-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65			...course, poorly sorted sand. 5% gravel, 85% sand, 10% fines. ...wet to 66' bgs. ...moist.						
67.5			...reddish brown (5 YR 5/4). ...thin (1/8") white (10 YR 8/1) caliche lamination. ...collect DBSA-21-Q-70, DBSA-21-Q-70- DUP, and DBSA-21-Q-70-MS/MSD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
70		CL	MUDDY CREEK FORMATION: Brown (7.5 YR 4/3), sandy lean CLAY, trace gravel, moist and very stiff.						
72.5			...clay layers are mostly massive with occasional laminated clay layers.						
75			...weakly cemented. ...collect DBSA-21-T-80. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
77.5									
80									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made.  
 It is not intended to be representative of subsurface conditions at other locations or times.

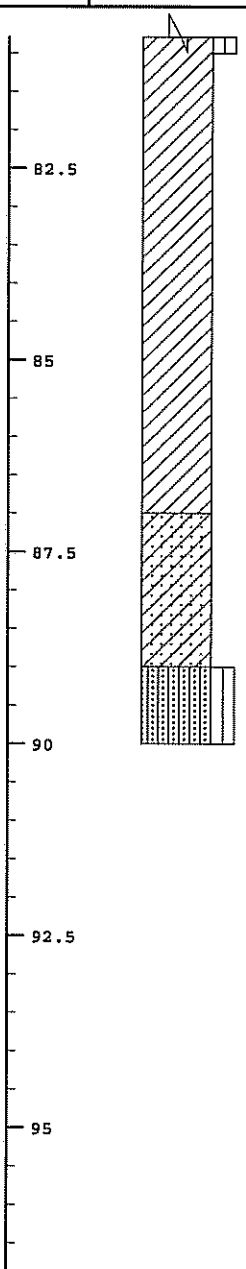
# EXPLORATION LOG DBSA 21

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 10-2-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: R. COOKE

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
82.5									
85									
87.5		SC	Brown (5 YR 5/4), silty SAND, trace gravel, moist and very dense.						
90		SM	Reddish brown (5 YR 4/3), silty SAND, trace gravel, moist and very dense. ...collect DBSA-21-T-90. END OF BORING AT 90.0 FEET						
92.5									
95									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made.  
 It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 17

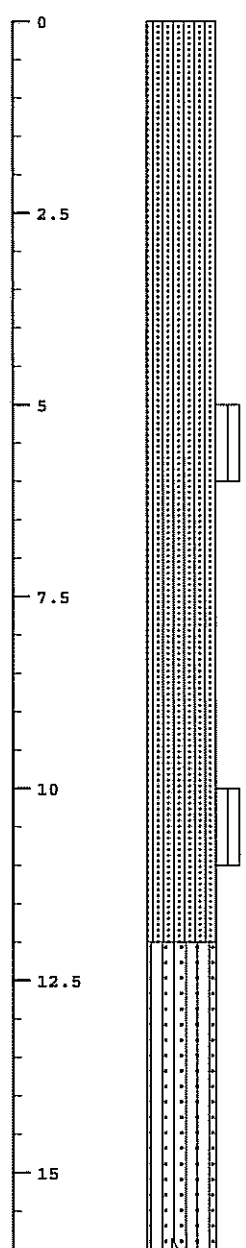
# EXPLORATION LOG DBSA 23

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 09-26-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		SM	Yellow (10 YR 7/6), silty SAND with gravel (approximately 30% gravel (well graded, subangular, approximately 33% coarse gravel, 33% medium gravel, and 33% fine gravel), 15% silt, 55% sand (poorly graded, subrounded, approximately 20% course sand, 20% medium sand, and 60% fine sand), moist and dense.  ...collect DBSA-23-Q-5. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv. Yellow (10 YR 7/6), silty SAND with gravel (approximately 30% gravel (well graded, subangular, approximately 33% coarse gravel, 33% medium gravel, and 33% fine gravel), 15% silt, 55% sand (poorly graded, subrounded, approximately 20% course sand, 20% medium sand, and 60% fine sand), moist and very dense . ...pale yellow (2.5 Y 8/4), sand has approximately 5% mafic, and 95% felsics. Gravel: approximately 20% basalt, and 80% latite. ...collect DBSA-23-Q-10. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
12.5		SP-SM	Pale yellow (2.5 Y 7/4), poorly graded SAND with silt (approximately 10% gravel, 10% silt, 80% sand (subrounded, approximately 10% coarse sand, 5% medium sand, 85% fine sand), moist, weakly cemented (0.5" layers), and very dense. Sand: approximately 5% mafics, and 95% felsics. Gravel: 50% andesite, and 50% latite.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG DBSA 23

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 09-26-07

EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE

EQUIPMENT: SONIC DRILL RIG

ELEVATION: EXISTING GROUND SURFACE

LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5									
20		SM	Very pale brown (10YR 7/3) silty SAND with gravel (approximately 25% gravel (well-graded, subangular, approximately 33% coarse gravel, 33% medium gravel, 33% fine gravel), approximately 20% silt, 55% sand (well-graded, subrounded, approximately 30% coarse sand, 20% medium sand, 50% fine sand), moist and very dense. Sand: approximately 10% mafics, 90% felsics. Gravel: approximately 80% chloritic andesite, 20% latite. ...collected DBSA-23-Q-20. PID's: 10.6 eV= 1.3 ppmv, 11.7 eV = 0.0 ppmv.						
22.5									
25									
27.5									
30			...collected DBSA-23-Q-30, DBSA-23-Q-30- FD and DBSA-23-Q-30-MS/MD.						
		SM	...same as above, except weakly cemented in 0.5" layers.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 18



# EXPLORATION LOG

## DBSA 23

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

PROJECT NO.: 20072226V1

**BORING LOCATION: SEE FIGURE 2**

**EXPLORATION DATE:** 09-26-07

**EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE**

**EQUIPMENT:** SONIC DRILL RIG

**ELEVATION:** EXISTING GROUND SURFACE

LOGGED BY: M. MELHORN

**INITIAL DEPTH TO WATER:** NOT ENCOUNTERED

DATE MEASURED: N/A

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

[illegible]

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

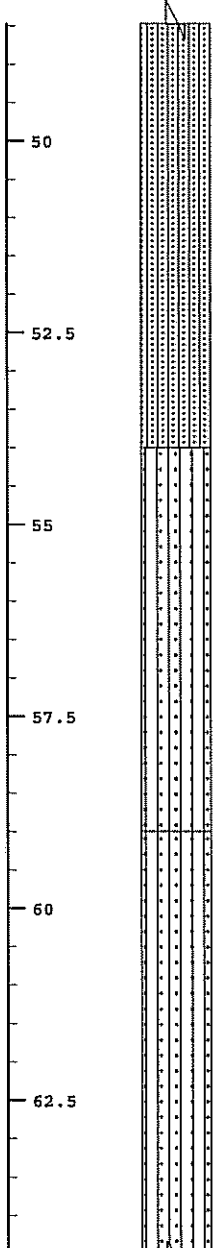
# EXPLORATION LOG DBSA 23

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 09-26-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50			...collected DBSA-23-Q-50. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.; same soil as above.						
52.5									
55		SP-SM	Light yellowish brown (10yr 6/4) poorly-graded SAND with silt and gravel (approximately 20% gravel (well-graded, subangular, approximately 30% coarse gravel, 20% medium gravel, 50% fine gravel), approximately 10% silt, 70% sand (subrounded, approximately 20% coarse sand, 10% medium sand, 70% fine sand), moist and very dense. Sand: approximately 10% matrics (as chlorite), 90% felsics. Gravel: approximately 30% basalt, 30% andesite (chloritic), 40% rhyolite. Contains 1.0" thick lenses of poorly graded sand with silt (SP-SM).						
57.5		SP-SM	Light yellowish brown poorly-graded SAND with silt, few gravel, moist and very dense. Same grain size and composition as at 54'. ...collected DBSA-23-Q-60. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
60									
62.5									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

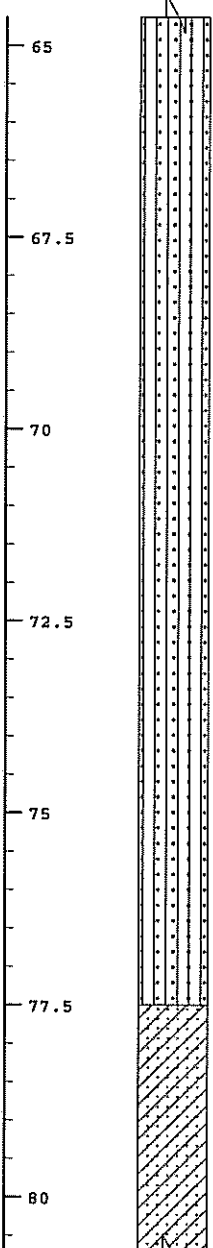
# EXPLORATION LOG DBSA 23

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 09-26-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			<p>...collected DBSA-23-Q-70. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.</p> <p>...abrupt contact at 77.5" (see below)</p>						
		SC	<p>Brown (7.5 YR 5/4) clayey SAND (approximately 5% gravel (poorly-graded, subrounded, 100% fine gravel), 25% lean clay, 70% sand (poorly-graded, subrounded, approximately 20% medium sand, 60% fine sand)), moist, weakly cemented and very dense. Sand: approximately 10% chlorite, 20% gypsum,</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.


# EXPLORATION LOG DBSA 23

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 09-26-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
82.5			70% felsics. Gravel: approximately 50% chloritic andesite, 50% basalt. Sequence is laminated. ...becomes thickly bedded. ...collected DBSA-23-Q-80. PID's: 10.6 eV = 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
85									
87.5		SP-SC	Light yellowish brown (10 YR 6/4) poorly-graded SAND with clay (approximately 5% gravel (well-graded, subrounded, approximately 33% coarse gravel, 33% medium gravel, 33% fine gravel), approximately 10% clay, 85% sand (subrounded, approximately 20%, coarse sand, 10% medium sand, 70% fine sand), moist and very dense. Sand: has approximately 10% mafics, 90% felsics. Gravel: has approximately 20% chloritic andesite, 30% basalt, 50% rhyolite. ...1' thick beds of approximately 100% sand and gravel layers. ...collect DBSA-23-Q-90. PID's: 10.6 eV = 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
90									
92.5									
95		SC	Reddish yellow (7.5 YR 6/6) clayey SAND with gravel (approximately 20% gravel, (well-graded, subrounded, approximately 30% coarse gravel, 30% medium gravel, 40% fine gravel). approximately 20% lean						

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# EXPLORATION LOG

## DBSA 23

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 09-26-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

[illegible]

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG DBSA 23

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 09-26-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
115									
117.5									
120									
122.5									
125									
127.5									
		SP-SM	<p>Brown (7.5 YR 5/4) poorly-graded SAND with silt and gravel (approximately 25% gravel (poorly-graded, subangular, approximately 30% medium gravel, 70% fine gravel), approximately 10% silt, approximately 65% sand (subrounded, approximately 20% coarse sand, 5% medium sand, 75% fine sand), moist and very dense. Sand: approximately 5% chlorite, 10% mafics, 85% felsics. Gravel: approximately 70% rhyolite, 15% latite, 15% andesite (chloritic).</p> <p>...collected DBSA-23-Q-120. PID's: 10.6 eV = 0.0 ppmv, 11.7 eV = 0.0 ppmv. ...approximately 5% to 10% gravel, 70% sand, 30% fines. Gravel is subangular and well graded; Sand is 70% medium sand, 30% fine sand. Trace white salt coatings.</p> <p>...poorly formed layering in soil. Layers are 1/8" to 1/4" thick.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

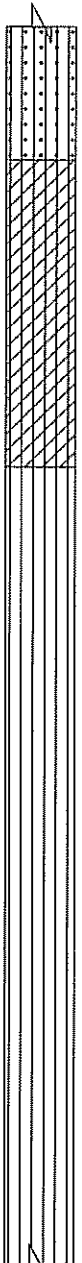
# EXPLORATION LOG DBSA 23

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 09-26-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
130			...collect sample DBSA-23-Q-130. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
132.5		CL-ML	Muddy Creek Formation: Brown (7.5 YR 5 4) silty CLAY with sand, moist and very stiff. Sand is fine grain, approximately 10% of soil.						
135		ML	Brown (7.5 YR 5/4) SILT, trace sand, trace clay, moist and very stiff.  ...dark yellowish brown (10YR 4/4).  ...collect DBSA-23-T-140. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
137.5									
140									
142.5									
145									

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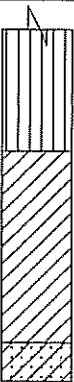
# EXPLORATION LOG DBSA 23

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 09-26-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
147.5		CL	Dark yellowish brown (10 YR 4/4) sandy lean CLAY, moist and very stiff.						
150		SC	Dark yellowish brown (10 YR 4/4) clayey SAND, moist and very dense. ...collect DBSA-23-T-150. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv. <b>END OF BORING AT 150.0 FEET</b>						
152.5									
155									
157.5									
160									

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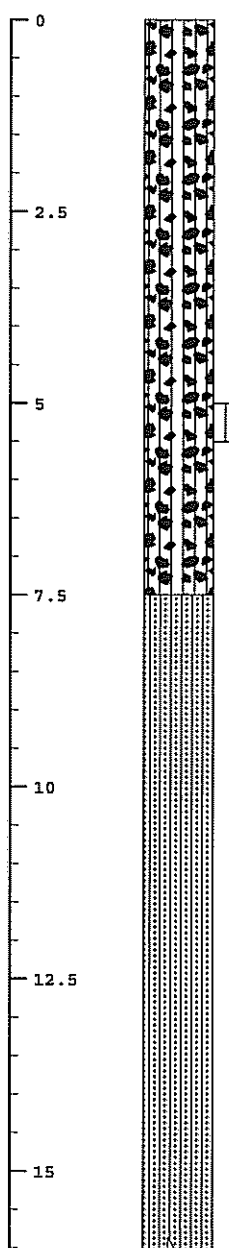
# EXPLORATION LOG DBSA 26

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 09-21-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		GM	Yellowish brown (10 YR 5/6) silty GRAVEL with sand (approximately 60% gravel (well-graded, subrounded, approximately 20% cobbles, 20% coarse gravel, 20% medium gravel, 20% fine gravel), approximately 15% silt, 25% sand, (well-graded, subrounded, approximately 40% coarse sand, 20% medium sand, 40% fine sand), moist and dense. Gravel: approximately 30% rhyolite, 30% latite, 20% andesite, 10% chloritic andesite. Sand: approximately 5% mafics, 95% felsics. ...collect DBSA-23-Q-5. PID's: 10.6 eV = 0.0 ppmv, 11.7 eV = 0.0 ppmv. ...6" thick layers of silty gravel with sand (see soil description at 0.0').						
2.5		SM	Yellowish brown (10 YR 5/6) silty SAND with gravel (approximately 40% gravel, 20% silt, 40% sand), moist. Gravel is poorly-graded, subangular, approximately 10% medium gravel, 90% fine gravel, has approximately 40% andesite, 30% rhyolite, 30% latite. Sand is well-graded, subrounded, approximately 30% coarse sand, 20% medium sand, 50% fine sand, approximately 5% mafics, 95% felsics. ...collect DBSA-26-Q-10. PID's: 10.6 eV = 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
5									
7.5									
10									
12.5									
15									

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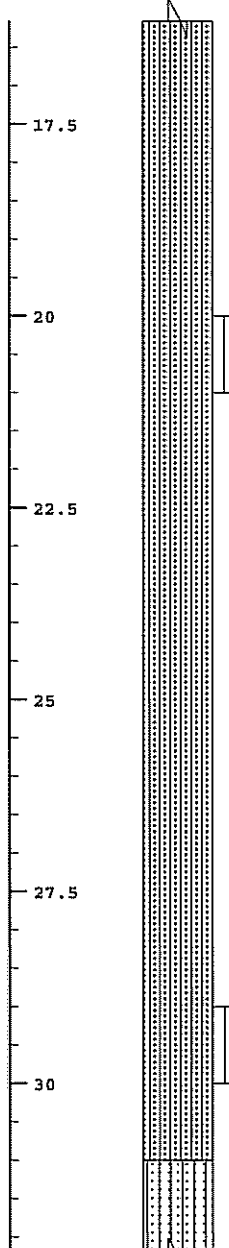
# EXPLORATION LOG DBSA 26

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 09-21-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5			...6" thick gravel layer (poorly-graded), has thin alternating beds of silty SAND and silty SAND with gravel within the layer.						
20			...collected DBSA-26-Q-20, PIDs: 11.7 eV = 0.0 ppmv, 10.6 eV = 1.5 ppmv.						
22.5									
25									
27.5									
30			...collected DBSA-26-Q-30. PID's: 10.6 eV = 0.0 ppmv, 11.7 eV = 0.0 ppmV. Same soil as above.						
		SW-SM	Very pale brown (10 YR 7/4) well-graded SAND with silt (approximately 5% gravel (poorly-graded, subangular, 100% fine						

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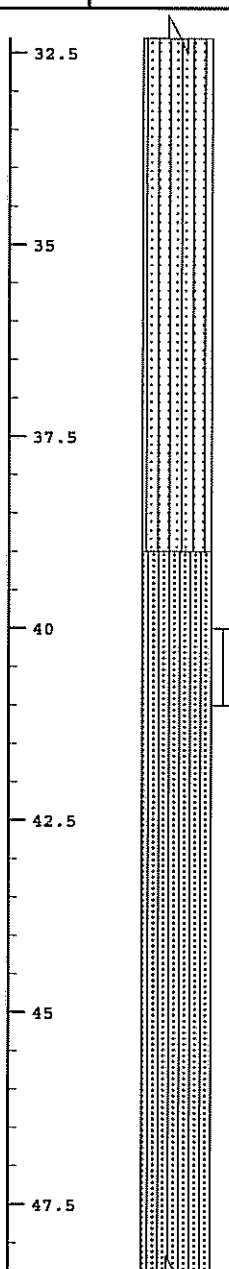
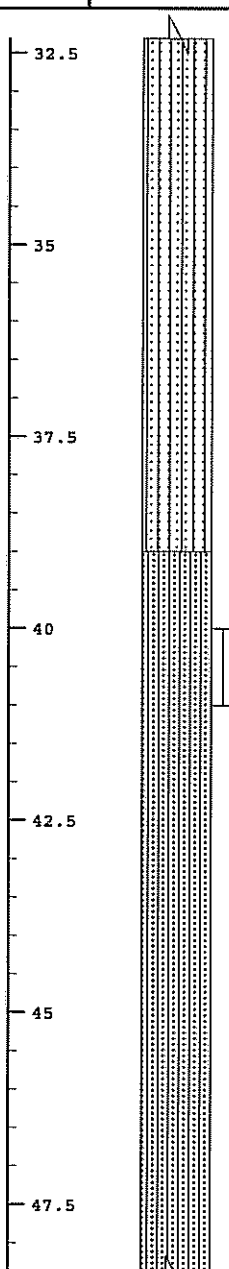
# EXPLORATION LOG DBSA 26

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 09-21-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5 35 37.5			gravel), approximately 10% silt, 85% sand (subrounded, well-graded, approximately 30% coarse sand, 30% medium sand, 40% fine sand)), moist and very dense. Sand: approximately 20% mafics (as chloritic andesite), 80% felsics; Gravel: approximately 20% andesite (chloritic), 80% rhyolite.						
40 42.5 45 47.5		SM	Light yellowish brown (10 Y/R 6/4) silty SAND with gravel (approximately 25% gravel (well-graded, subangular, approximately 20% coarse gravel, 30% medium gravel, 50% fine gravel), approximately 20% silt, 55% sand (subrounded, poorly graded, approximately 30% coarse sand, 10% medium sand, 60% fine sand), dry and very dense. Sand: approximately 10% mafics, 90% felsics. Gravel: approximately 10% andsite (chlorite), 40% latite, 40% rhyolite, 10% basalt. ...collected DBSA-23-Q-40. PID's: 10.6 eV= 0.0 ppmV, 11.7 eV = 0.0 ppmv. Same soil as above except: light yellowish brown (10 YR 6/4), approximately 40% silt. Gravel: approximately 20% rhyolite, 30% latite, 30% basalt, 20% chloritic andesite. ...past 42.5', same soil/sediments as before 39.0'.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG DBSA 26

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 09-21-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50			...collected DBSA-23-Q-50. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
52.5									
55			...andesite cobble.						
57.5									
60		SC	Light yellowish brown (10 YR 6/4) clayey SAND with gravel (approximately 25% gravel (well-graded, subangular, approximately 20% coarse gravel, 30% medium gravel, 50% fine gravel),						
62.5		SM	approximately 30% clay, 45% sand (poorly- graded, subrounded, approximately 20% course sand, 10% medium sand, 70% fine sand), moist and very dense. Sand: approximately 15% mafics, 85% felsics. Gravel: approximately 70% rhyolite, 30% andesite. Weakly cemented 1"-2" thick layers. ...collected DBSA-26-Q-60. PID's: 10.6						

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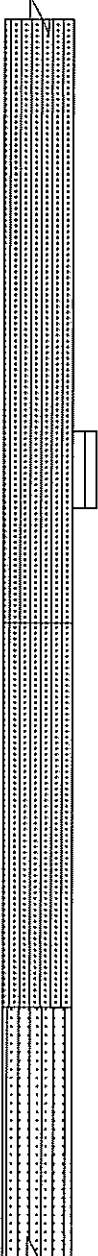
# EXPLORATION LOG DBSA 26

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 09-21-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65 67.5 70 72.5 75 77.5 80			<p>eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv. Light yellowish brown (10 YR 6/4) silty SAND with gravel (approximately 35% gravel (well-graded, subangular, approximately 30% coarse gravel, 30% medium gravel, 40% fine gravel), approximately 20% silt, 45% sand, (poorly graded, subrounded, approximately 10% coarse sand, 10% medium sand, 80% fine sand), moist and very dense. Gravel: approximately 70% rhyolite, 30% andesite. Sand: approximately 15% mafics, 85% felsics.</p> <p>...collected DBSA-26-Q-70, PID's: 11.7eV= 3.8 ppmv, 10.6 eV= 1.6 ppmv.</p>						
		SM	Very pale brown (10 YR 7/4) silty SAND (approximately 10% gravel (poorly graded, subrounded, approximately 10% medium gravel, 90% fine gravel), approximately 20% silt, 70% sand (poorly graded, subrounded, approximately 30% fine sand, 20% medium sand, 50% fine sand), moist and very dense. Sand: approximately 5% mafics, 95% felsics. Gravel: approximately 30% rhyolite, 40% chloritic andesite, 30% latite.						
		SW-SM	Very pale brown (10 YR 7/4) well-graded SAND with silt (approximately 10% gravel (poorly graded, subangular, 100% fine gravel), approximately 10% silt, 80% sand (subrounded, well-graded, 40% coarse sand, 30% medium sand, 30% fine sand)), moist and very dense. Sand: approximately 20% mafics (as basalt/						

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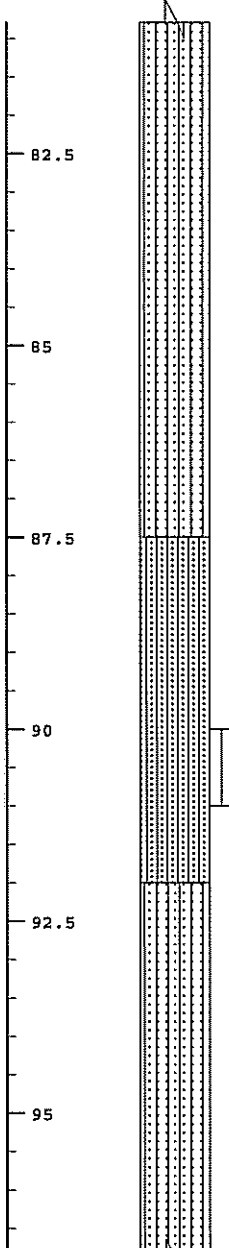
# EXPLORATION LOG DBSA 26

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 09-21-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
82.5			chloritic andesite), approximately 80% felsics. Gravel: approximately 30% rhyolite, 30% latite, 40% green chloritic andesite. ...collect DBSA-26-Q-80. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmV.						
85									
87.5									
90		SM	Brown (10 YR 5/3) well-graded SAND with silt and gravel (approximately 20% gravel (well-graded, subangular, approximately 30% coarse gravel, 30% medium gravel, 40% fine gravel), approximately 20% silt, 50% sand (poorly-graded, subrounded, approximately, 20% coarse gravel, 10% medium sand, 70% fine sand)), moist and very dense. Sand: approximately 10% mafics, 90% felsics. Gravel: approximately 50% rhyolite, 25% andesite (chloritic), 25% latite.						
92.5		SW-SM	...collected DBSA-26-Q-90. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmV. Brown (10 YR 5/3) well-graded SAND with silt and gravel (approximately 20% gravel (poorly graded, subangular, approximately 10% medium gravel, 90% fine gravel), approximately 10% silt, 70% sand (subrounded, approximately 30% coarse sand, 30% medium sand, 40% fine sand)), moist and very dense. Sand: approximately 10% basalt, 10% andesite, 80% felsics. Gravel: approximately 50%						
95									

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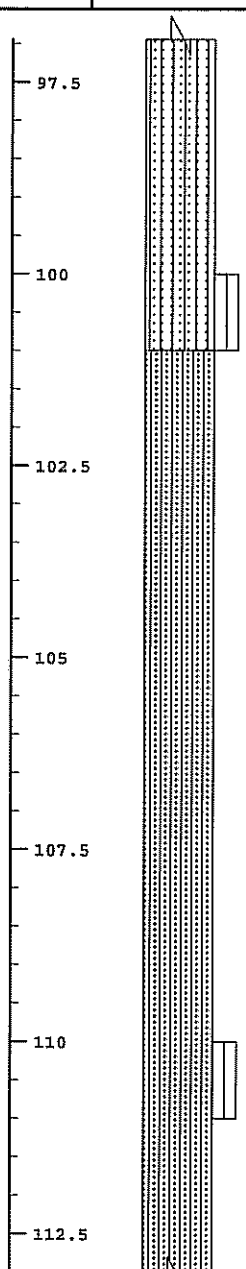
# EXPLORATION LOG DBSA 26

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 09-21-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
97.5			basalt, 25% andesite, 25% rhyolite.						
100			...collected DBSA-26-Q-100; ...collected DBSA-26-Q-100, PID's: 11.7 eV = 2.4 ppmv, 10.6 eV = 2.0 ppmv.						
102.5		SM	Very pale brown (10 YR 7/3) silty SAND with gravel (approximately 20% gravel (well-graded, subangular, approximately 33% coarse gravel, 33% medium gravel, 33% fine gravel), approximately 30% silt, 50% sand (well-graded, subrounded, approximately 40% coarse sand, 10% medium sand, 50% fine sand)), moist and very dense. Sand: approximately 5% mafics (as chlorite), approximately 95% felsics. Gravel: approximately 40% rhyolite, 30% latite, 30% andesite.						
105									
107.5									
110			...collected DBSA-26-Q-110. PID's: 10.6 eV = 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
112.5									

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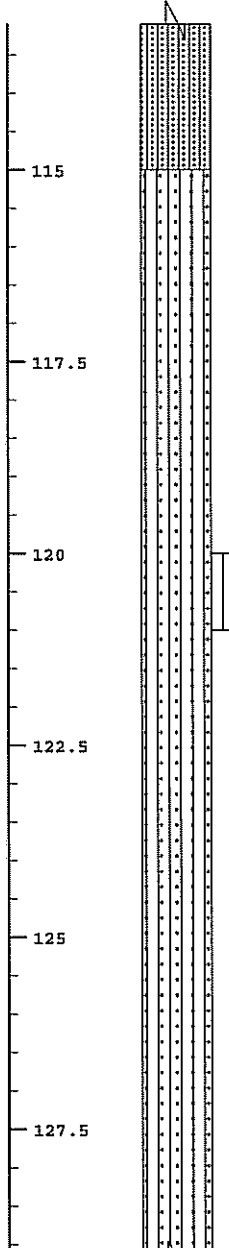
# EXPLORATION LOG DBSA 26

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 09-21-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
115		SP-SM	Reddish yellow (7.5 YR 6/6) poorly graded SAND with silt and gravel (approximately 30% gravel (well graded, subangular, approximately 33% coarse gravel, 33% medium gravel, 33% fine gravel), approximately 10% silt, 60% sand (subrounded, approximately 20% coarse sand, 10% medium sand, 70% fine sand), moist and very dense. Sand: approximately 5% mafics, 95% felsics. Gravel: approximately 40% latite, 60% rhyolite.  ...collected DBSA-26-Q-120. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv.						
117.5									
120									
122.5									
125									
127.5									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.



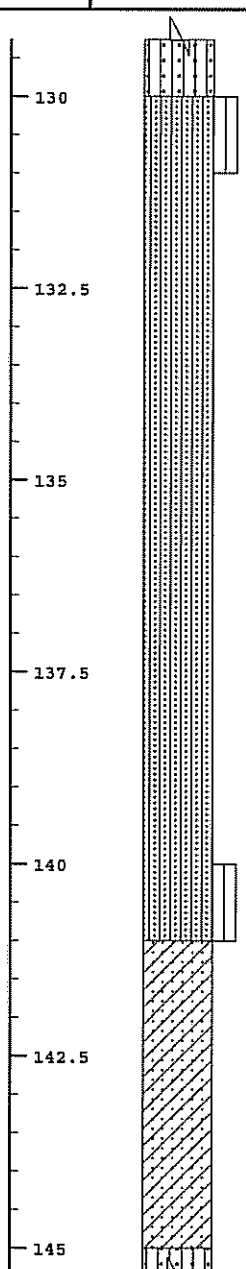
# EXPLORATION LOG DBSA 26

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 09-21-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
130		SM	...collected DBSA-26-Q-130, PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmv. Brownish yellow (10 YR 6/6) silty SAND with gravel (approximately 25% gravel (well graded, subangular, approximately 30% coarse gravel, 35% medium gravel, 35% fine gravel), approximately 20% silt, 55% sand (poorly graded, subrounded, approximately 25% coarse sand, 10% medium sand, 65% fine sand)), moist and very dense. Sand: approximately 5% mafics, 95% felsics. Gravel: approximately 50% latite, 50% rhyolite.						
132.5									
135									
137.5									
140			...collected DBSA-26-Q-140. PID's: 10.6 eV= 0.0 ppmv, 11.7 eV = 0.0 ppmV.						
142.5		SC	Strong brown (7.5 YR 5/6) clayey SAND with gravel (approximately 20% gravel (poorly graded, subangular, approximately 40% coarse gravel, 60% fine gravel), approximately 25% lean clay, approximately 55% sand (well graded, subrounded, approximately 30% coarse sand, 30% medium sand, 40% fine sand)), moist and very dense. Sand: 10% mafics, 90% felsics. Gravel: 80% rhyolite, 10%						
145		SP-SM	latite, 10% chloritic andesite.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

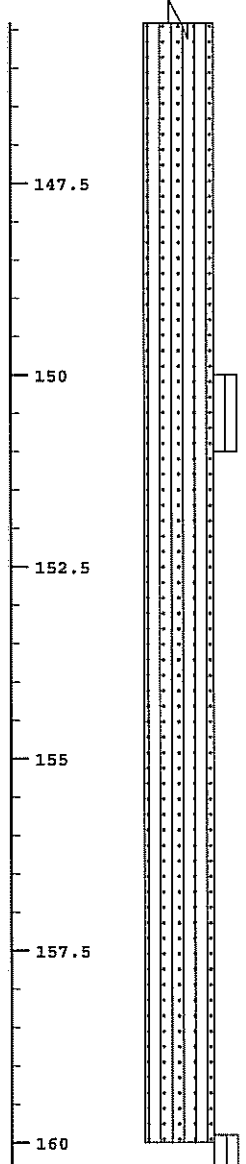
# EXPLORATION LOG DBSA 26

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 09-21-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			<p>Yellowish brown (10 YR 5/4) silty SAND with gravel (approximately 20% gravel (poorly graded, subangular, approximately 20% coarse gravel, 10% medium gravel, 70%), approximately 20% silt, 60% sand (poorly graded, subrounded, approximately 20% coarse sand, 20% medium sand, 60% fine sand)), moist and very dense. Sand: approximately 10% mafics, 90% felsics. Gravel: approximately 80% andesite, 10% latite, 10% chloritic andesite.          ...collected DBSA-26-Q-150. PID's: 10.6 eV = 0.0 ppmv, 11.7 eV = 0.0 ppmv.          ...same soil as above.</p>						
			<p>...collected DBSA-26-Q-160. PID's: 10.6 eV = 0.0 ppmv, 11.7 eV = 0.0 ppmv.          ...same soil as above.</p>						
			END OF BORING AT 160.0 FEET						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG DBSA-27

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 8/9/07-8/13/07  
 EQUIPMENT: DIEDRICH D-120 DRILL RIG  
 LOGGED BY: M.MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0									
2.5		PAVE SM	Dark gray ASPHALT 2" thick. Sample DBSA-27-Q-0 from field adjacent to the boring. Reddish brown (5 YR 5/4) silty SAND with gravel, moist.						
5		GM	Reddish yellow (5 YR 6/6) silty GRAVEL with sand, moist and medium dense. Gravel is subangular to subrounded, well-graded, consists of 80% latite, 20% basalt. Sand is subrounded, poorly graded, with 40% mafics, 60% felsics. Approximately 20% silt, 25% sand, 55% gravel. ...boring cleared with air knife to 4.5'. ...sample DBSA-27-Q-5, Pid's: 10.6 eV = 1.7 ppmv, 11.7 eV = 0.0 ppmv.						
7.5									
10		SM	Light greenish gray (GLEYS 2 7/1) silty SAND, moist, weakly cemented and dense. Sand is subrounded, poorly graded, with 30% gypsum, 70% felsics. Approximately 30% silt, 70% sand. Samples DBSA-27-Q-10 and DBSA-27-Q-10-FD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
12.5									
15									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG DBSA-27

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 8/9/07-8/13/07  
 EQUIPMENT: DIEDRICH D-120 DRILL RIG  
 LOGGED BY: M.MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5									
20	15 16 75	SM	Greenish gray silty SAND with gravel, moist, weakly cemented and very dense. Sand is subrounded, well-graded, consists of 10% gypsum, 20% mafics, 70% felsics. Gravel is angular, well-graded, with 30% cemented sand, 30% andesite, 40% rhyolite. Approximately 20% silt, 20% gravel, 40% sand. Samples DBSA-27-Q-20 and DBSA-27-Q-20-FD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
22.5									
25									
27.5									
30	60 100 160		...light yellowish brown (10 YR 6/4), sample DBSA 27-Q-30. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG

## DBSA-27

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

**BORING LOCATION: SEE FIGURE 2**

**EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER**

**ELEVATION:** EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1

**EXPLORATION DATE:** 8/9/07-8/13/07

**EQUIPMENT:** DIEDRICH D-120 DRILL RIG

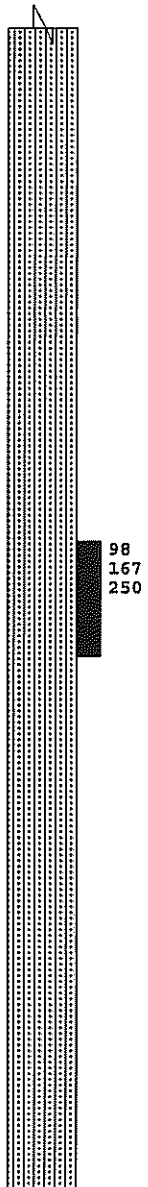
LOGGED BY: M.MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

FINAL DEPTH TO WATER: NOT ENCOUNTERED

**DATE MEASURED:** N/A

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div> <div>32.5</div> <div>35</div> <div>37.5</div> <div>40</div> <div>42.5</div> <div>45</div> <div>47.5</div> </div>			<p>...gravel consists of 30% basalt, 70% rhyolite, sample DBSA-27-Q-40. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

**Figure No. 20**

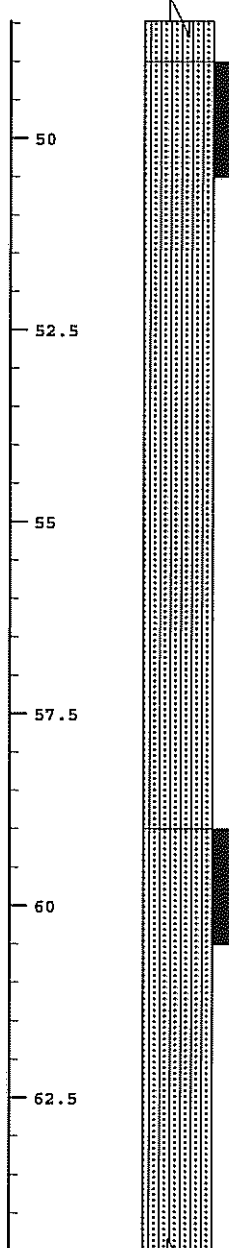
# EXPLORATION LOG DBSA-27

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 8/9/07-8/13/07  
 EQUIPMENT: DIEDRICH D-120 DRILL RIG  
 LOGGED BY: M.MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50		SM	Yellowish brown silty SAND, moist, weakly cemented and very dense. Sand is subrounded, poorly graded, consisting of 30% mafics, 70% felsics. Gravel is subangular, poorly graded, with 90% rhyolite, 10% latite. Approximately 20% silt, 10% gravel, 70% sand. Collect DBSA-27-Q-50. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
52.5									
55									
57.5									
60		SM	Yellowish brown silty SAND with gravel, moist and very dense. Sand is subrounded, well-graded, has 40% mafics, 60% felsics. Gravel is subangular, poorly graded, with 30% rhyolite, 30% basalt, 40% andesite. Sequence is thinly bedded. Approximately 20% silt, 25% gravel, 55% sand. Sample DBSA-27-Q-60, Pid's: 11.7 eV = 0.9 ppmv, 10.6 eV = 0.0 ppmv.						
62.5									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG DBSA-27

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 8/9/07-8/13/07  
 EQUIPMENT: DIEDRICH D-120 DRILL RIG  
 LOGGED BY: M.MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <div style="width: 100%; height: 100%; border: 1px solid black; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 100%; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div> </div> <div style="display: flex; flex-direction: column; align-items: center;"> <div>65</div> <div>67.5</div> <div>70</div> <div>72.5</div> <div>75</div> <div>77.5</div> <div>80</div> </div> </div>			<p>...same as 58' bgs except: thin beds of silty SAND and silty SAND with gravel, sand composition is 25% mafics, 75% felsics, weakly cemented and veined. Collect DBSA-27-Q-70. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						
		SM	Yellowish brown silty SAND, moist and very dense. Sand is subrounded, well - graded, 40% mafics, 60% felsics. Gravel is subangular, poorly graded, with 30%						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG

## DBSA-27

**BORING LOCATION: SEE FIGURE 2**

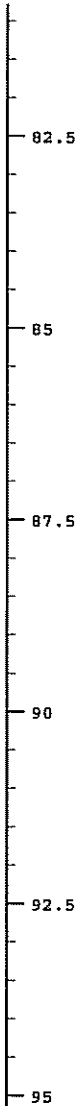
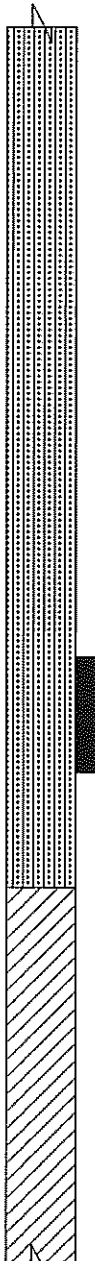
**ELEVATION:** EXISTING GROUND SURFACE

FINAL DEPTH TO WATER: NOT ENCOUNTERED

**EXPLORATION DATE:** 8/9/07-8/13/07

LOGGED BY: M.MEHLHORN

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			<p>rhyolite, 30% basalt, 40% andesite. Approximately 20% silt, 10% gravel, 70% sand. Sample DBSA-27-Q-80. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...same soil as above, sample DBSA-27-Q= 90. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						
		CL	<p>MUDDY CREEK FORMATION: Light yellowish brown sandy lean CLAY, moist, weakly cemented and very stiff. Sequence is laminated and cross cut by 1/8" gypsum veinlets. Approximately 40% sand, 60% clay. Contact inferred by changes in drilling behavior and drill rates.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.



# EXPLORATION LOG

## DBSA-27

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

**BORING LOCATION: SEE FIGURE 2**

**EXPLORATION SIZE (dia.):** 6" O.D. H.S. AUGER

**ELEVATION:** EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1

**EXPLORATION DATE:** 8/9/07-8/13/07

**EQUIPMENT:** DIEDRICH D-120 DRILL RIG

LOGGED BY: M.MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

FINAL DEPTH TO WATER: NOT ENCOUNTERED

**DATE MEASURED:** N/A

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
<div> <div>97.5</div> <div>100</div> <div>102.5</div> <div>105</div> <div>107.5</div> <div>110</div> <div>112.5</div> </div>			<p>...light greenish gray, weakly cemented with thin laminae of clayey sand, samples: DBSA-27-T-100, PIDs: 10.6, 11.7 eV = 0.0 ppmV. DBSA-27-T-100-FD, DBSA-27-T-100-MS/MSD.</p>						
			END OF BORING AT 102.0 FEET						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

**Figure No. 20**

# EXPLORATION LOG DBSA 29

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 09-21-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		PAVE	Dark gray ASPHALT 2" thick.						
		SW-SM	Brownish yellow (10YR 6/6) well-graded SAND with silt (approximately 10% gravel (poorly graded, subangular, approximately 5% medium gravel, 95% fine gravel), approximately 10% silt, 80% sand (well graded, subangular, approximately 30% coarse sand, 40% medium sand, 30% fine sand), moist and dense. Sand: approximately 5% mafics, 95% felsics. Gravel: approximately 90% rhyolite, 10% andesite.						
2.5		SM	Brownish yellow (10YR 6/6) well-graded SAND with silt, dry and dense. ...collected DBSA-29-Q-5, PID's: 11.7 eV = 1.3 ppmv, 10.6 eV = 0.8 ppmv. ...boring cleared with air knife to 5'.						
5									
7.5		SP-SM	Brownish yellow (10 YR 6/6) poorly graded SAND (approximately 10% gravel, 10% silt, 80% sand (poorly graded, subrounded, 10% coarse sand, 90% fine sand), moist and very dense. Sand: approximately 10% mafics, 90% felsics, Gravel: 80% andesite, 20% latite. ...collected DBSA-29-Q-10, and DBSA-29-Q-10-FD. PID's: 11.7 eV= 1.9 ppmv, 10.6 eV= 1.6 ppmv. Same as above.						
10									
12.5									
15		SM	Brownish yellow (10 YR 6/6) silty SAND with gravel (approximately 20% gravel (poorly graded, subangular, approximately						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

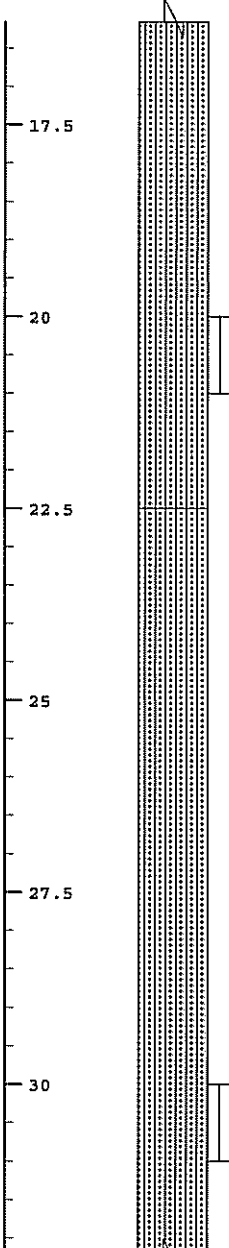
# EXPLORATION LOG DBSA 29

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 09-21-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5			30% medium gravel, 70% fine gravel), approximately 10% silt, 70% sand (well graded, subrounded, approximately 25% course sand, 30% medium sand, 45% fine sand)), moist, weakly cemented and very dense. Sand: approximately 30% mafics (basalt, chloritic andesite), approximately 70% felsics; Gravel: approximately 20% rhyolite, 20% latite, 60% andesite.  ...collected DBSA-29-Q-10, PID's: 11.7 eV= 0.0 ppmv, 10.6 eV= 0.5 ppmv.						
22.5		SM	Brownish yellow (10 YR 6/6) silty SAND with gravel (approximately 20% gravel (poorly graded, subangular, approximately 10% medium gravel, 90% fine gravel), approximately 20% silt, 60% sand (subround, poorly graded, approximately 10% course sand, 10% medium sand, 80% fine sand), moist, weakly cemented (in layers) and very dense. Sand: approximately 10 % mafics, 90% felsics; Gravel: approximately 30% rhyolite, 70% latite: caliche coats on gravel clasts.  ...collected DBSA-29-Q-30, PID's: 11.7 eV = 0.0 ppmv, 10.6 eV = 0.4 ppmv, same soil as 22.5' bgs.						
25									
27.5									
30									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG DBSA 29

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 09-21-07

EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE

EQUIPMENT: SONIC DRILL RIG

ELEVATION: EXISTING GROUND SURFACE

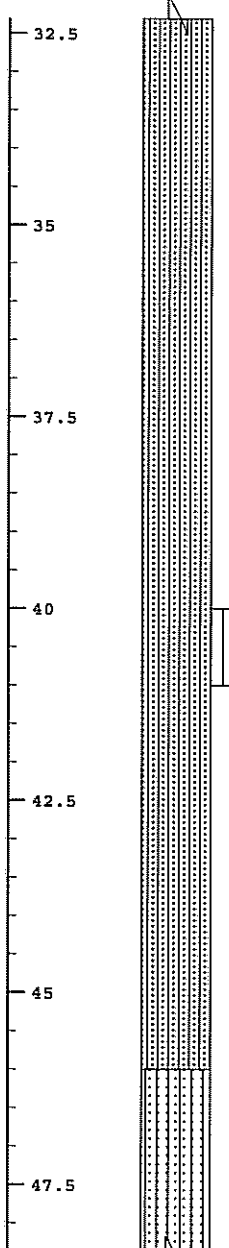
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			<p>...weakly cemented, gravel clasts contain approximately 30% green/olive chloritically altered andesite.</p> <p>...collected DBSA-29-Q-40. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Same soil as 22.5' bgs except: approximately 5% coarse gravel as latite.</p>						
		SW-SM	Light brown (75 YR 6/3) well-graded SAND with silt and gravel (approximately 40% gravel (well graded subangular, approximately 10% coarse gravel, 40% medium gravel 50% fine gravel), approximately 10% silt, 50% sand (well-						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 21

# EXPLORATION LOG DBSA 29

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 09-21-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50			graded, subrounded, approximately 30% coarse sand, 30% medium sand, 40% fine sand)) moist and very dense. Sand: approximately 20% mafics (basalt, chloritic andesite), approximately 80% felsics. Gravel: approximately 20% rhyolite, 30% latite, 50% andesite. ...collected DBSA-29-Q-50. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Same soil as 22.5' bgs, except sand consists of 50% mafics (basalt, chloritic andesite and 50% felsics; weakly cemented.						
52.5		SM	Very pale brown (10 YR 7/4) silty SAND (approximately 15% gravel, (poorly graded, subangular, approximately 10% medium gravel, 90% fine gravel), approximately 20% silt, 65% sand (poorly graded, subrounded, approximately 20% course sand, 80% fine sand), moist and very dense. Sand: approximately 10% mafics (basalt), 90% felsics. Gravel: approximately 50% andesite (chloritic), 50% latite.						
55									
57.5									
60			...collected DBSA-29-Q-60. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Same as 52.0' bgs.						
62.5									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG DBSA 29

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 09-21-07

EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE

EQUIPMENT: SONIC DRILL RIG

ELEVATION: EXISTING GROUND SURFACE

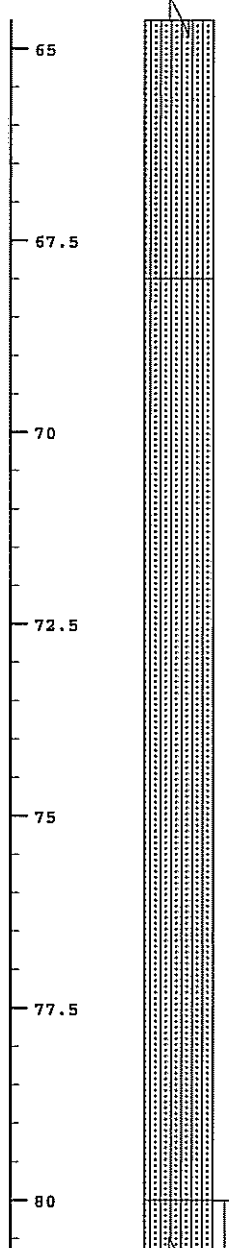
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65									
67.5									
70		SM	Strong brown (7.5 YR 5/6) silty SAND with gravel (approximately 25% gravel (poorly graded, subangular, approximately 30% medium gravel, 70% fine gravel), approximately 20% silt, 55% sand (well graded, subrounded, approximately 20% coarse sand, 20% medium sand, 60% fine sand), moist and very dense. Sand: approximately 15% mafics (basalt, chlorite), 85% felsics. Gravel: approximately 50% andesite (chlorite), approximately 20% basalt, 30% latite. ...collect DBSA-29-Q-70. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
72.5									
75									
77.5									
80		SM	...collected DBSA-29-Q-80, PID's: 11.7 eV = 0.0 ppmv, 10.6 eV = 1.4 ppmv.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

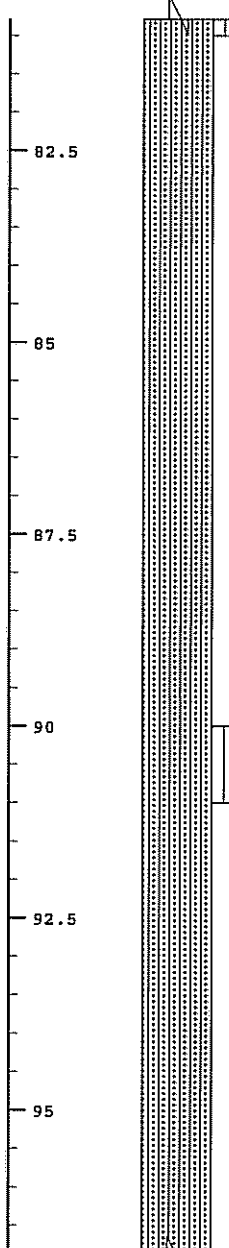
# EXPLORATION LOG DBSA 29

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 09-21-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			<p>Light brown (7.5 YR 6/4) silty SAND (approximately 10% gravel, (poorly graded, subangular, approximately 5% medium gravel, 95% fine gravel), approximately 15% silt, 75% sand (well-graded, subrounded, approximately 20% coarse sand. 30% medium sand, 50% fine sand)), moist and very dense. Sand: approximately 10% mafics (basalt), 90% felsics. Gravel: approximately 50% andesite, 50% latite.</p> <p>...collected DBSA-29-Q-90. PIDs: 10.6, 11.7 eV = 0.0 ppmV. Same soil as 80' bgs except: brownish yellow (10 YR 6 6); gravel clasts consist of approximately 30% chloritic andesite.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG DBSA 29

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 09-21-07

EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE

EQUIPMENT: SONIC DRILL RIG

ELEVATION: EXISTING GROUND SURFACE

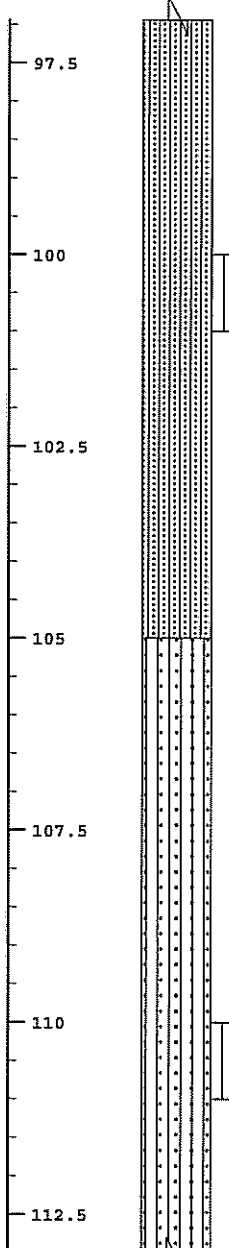
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
97.5			...very pale brown (10 YR 7/4), moisture content is gradually increasing.						
100			...collected DBSA-29-Q-100. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
102.5									
105		SP-SM	Very pale brown (10 YR 7/4) poorly graded SAND with silt and gravel (approximately 20% gravel (poorly graded, subangular, approximately 40% medium gravel, 60% fine gravel), approximately 10% silt, 70% sand, (poorly graded, subrounded, approximately 15% course sand, 5% medium sand, 80% fine sand), moist and very dense. Sand: approximately 10% mafics, 90% felsics. Gravel: approximately 40% rhyolite, 60% andesite (approximately 20% is chloritically altered).						
107.5									
110			...collected DBSA-29-Q-110, PIDs: 11.7 eV = 0.0 ppmv, 10.6 eV = 1.0 ppmv.						
112.5									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 21



# EXPLORATION LOG DBSA 29

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 09-21-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
115									
117.5									
120									
122.5									
125									
127.5									
		SP-SM	Yellowish brown (10 YR 5/6) poorly graded SAND with silt (approximately 10% gravel (poorly graded, subangular, 30% medium gravel, 70% fine gravel), 10% silt, 80% sand (poorly graded, subrounded, 30% course sand, 5% medium sand, 65% fine sand), moist, weakly cemented (in sheets) and very dense. Sand: approximately 10% mafics (andesite, trace chloritic), approximately 90% felsics, Gravel: approximately 70% rhyolite, 30% andesite.  ...collected DBSA-29-Q-120, PID's: 11.7 eV = 0.0 ppmv, 10.6 eV = 0.7 ppmv.						
		SP-SM	Yellowish brown (10 YR 5/6), poorly graded SAND with silt and gravel (approximately 20% gravel (poorly graded, subangular, approximately 20% medium gravel, 80% fine gravel), approximately						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

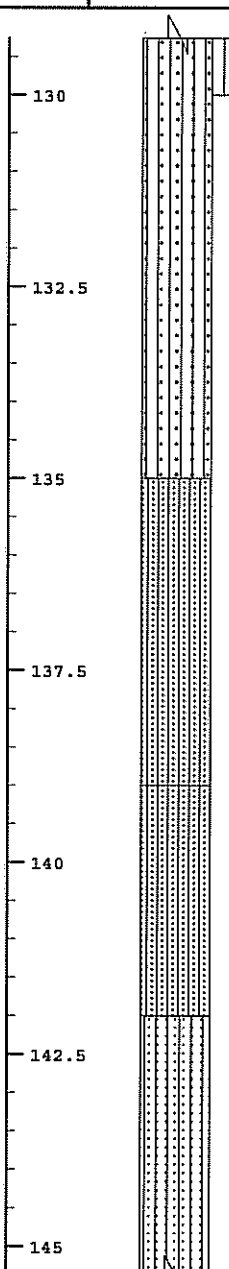
# EXPLORATION LOG DBSA 29

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 09-21-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
130			10% silt, 70% sand (poorly graded, subrounded, approximately 30% coarse sand, 10% medium sand, 70% fine sand)), moist and very dense. Sand: approximately 20% mafics (as andesite/chloritic andesite), 80% felsics; Gravel: approximately 20% rhyolite, 60% andesite, 20% latite. ...collected DBSA-29-Q-130. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
132.5									
135		SM	Brown (7.5 YR 5/4) silty SAND (approximately 15% gravel (poorly graded, subrounded, approximately 10% medium gravel, 90% fine gravel), approximately 20% silt, 65% sand (poorly graded, subrounded, approximately 15% coarse sand, 5% medium sand, 80% fine sand), moist and very dense. Sand: approximately 20% sand as chloritic andesite, 80% felsics; Gravel: approximately 40% latite, 60% andesite (chloritic).						
137.5		SM	Reddish yellow (7.5 YR 6/6) silty SAND with gravel (approximately 30% gravel (well graded, subangular, approximately 40% medium gravel, 60% fine gravel), 20% silt, 50% sand (well graded, subround, approximately 40% coarse sand, 30% medium sand, 30% fine sand) moist and very dense. Sand: approximately 20% mafics, 80% felsics; Gravel: approximately 20% chloritic andesite, 10% basalt, 10% latite, 60% rhyolite. ...collect DBSA-29-Q-140. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...wet at approximately 140'.						
140									
142.5		SW-SM							
145									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG DBSA 29

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 09-21-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
147.5			Brown (7.5 YR 5/4) well graded SAND with silt and gravel (approximately 20% gravel (poorly graded, subrounded, approximately 20% medium gravel, 80% fine gravel), approximately 10% silt, 70% sand (well graded, subrounded, approximately 40% coarse, 20% medium gravel, 40% fine sand), wet and very dense. Sand: approximately 20% mafics (as basalt and chloritic andesite), 80% felsics. Gravel: approximately 30% rhyolite, 30% andesite (chloritic), 30% andesite, 10% latite.						
150		SC	Light brown (7.5 YR 6/4) clayey SAND (approximately 10% gravel (subrounded, poorly graded, 100% fine gravel), approximately 30% clay, 60% sand (poorly graded, subrounded, approximately 20% course sand, 10% medium sand, 70% fine sand), wet and very dense. Gravel: approximately 40% rhyolite, 30% chloritic andesite, 30% latite; Sand: approximately 10% mafics, 90% felsics. ...collected DBSA-29-Q-150. ...1.0' thick of clayey sand with gravel; clay content gradually increases to approximately 40% down hole to 160'.						
152.5									
155									
157.5									
160			...collected DBSA-29-Q-160, DBSA-29-Q-160-FD, and DBSA-29-GW (groundwater sample).						
END OF BORING AT 160.0 FEET									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

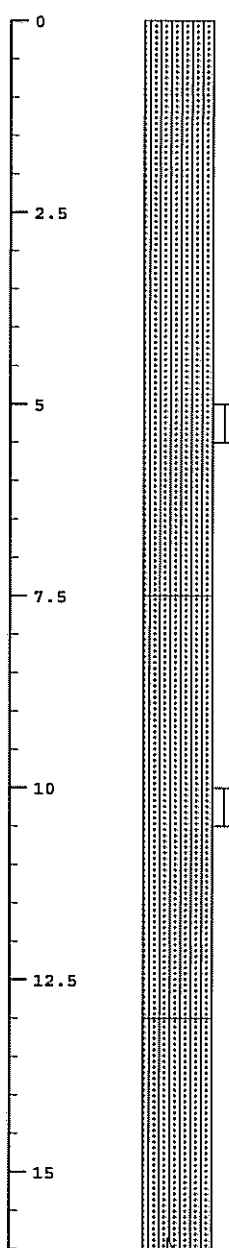
# EXPLORATION LOG DBSA 30

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 09-21-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		SM	Very pale brown (10 YR 8/2) silty SAND with gravel (approximately 40% gravel (well graded, subangular), approximately 15% silt, 45% sand (well graded, subangular)), dry and dense. Sand: approximately 80% felsics, 20% mafics, Gravel: approximately 20% basalt, 20% rhyolite, 40% andesite, 20% latite.  ...collected DBSA-30-Q-5, PID's: 10.6 eV = 0.9 ppmv, 11.7 eV = 1.7 ppmv.						
2.5									
5									
7.5		SM	Light yellowish brown (10 YR 6/4) silty SAND (approximately 10% gravel (poorly graded, subangular), approximately 15% silt, 75% sand (well graded, subrounded), moist and very dense. Sand: approximately 25% mafics, 75% felsics; Gravel: approximately 100% andesite. ...collected DBSA-30-Q-10, PID: 10.6 eV = 0.7 ppmv.						
10									
12.5									
15		SM	Pale brown (10 YR 6/3) silty SAND with gravel (approximately 20% gravel), dry and very dense.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

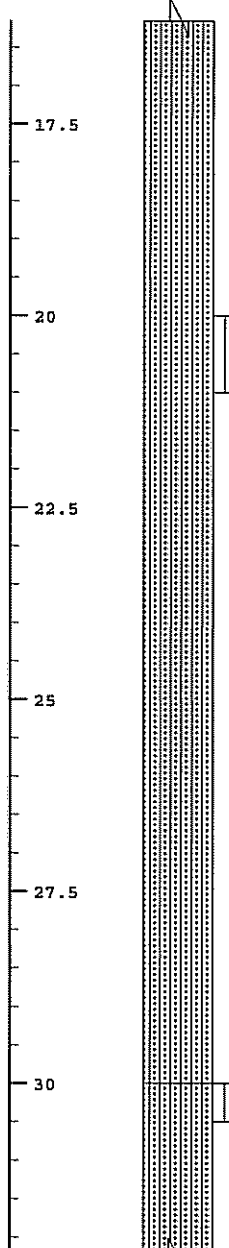
# EXPLORATION LOG DBSA 30

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 09-21-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
17.5			...very pale brown (10 YR 7/3).						
20			...collected DBSA-30-Q-20, PID: 10.6 eV = 0.1 ppmv. ...same soil as 13' bgs.						
22.5									
25									
27.5									
30		SM	...collected DBSA-30-Q-3, PID's: 10.6 eV = 0.9 ppmv, 11.7 eV = 1.7 ppmv. Pale brown (10 YR 6/3) silty SAND with gravel (approximately 20% gravel (well graded, subangular), approximately 15%						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made.  
 It is not intended to be representative of subsurface conditions at other locations or times.

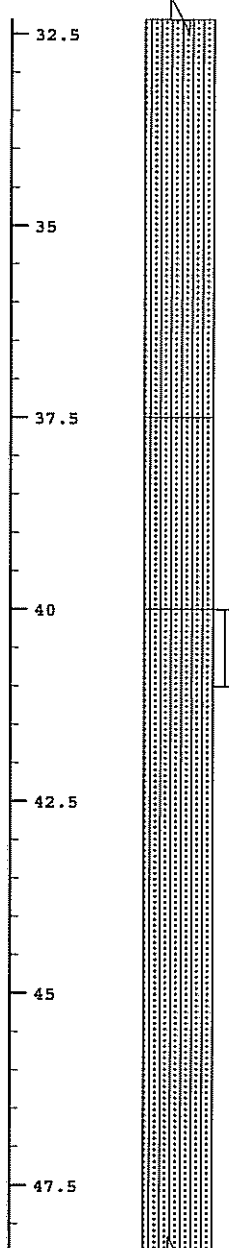
# EXPLORATION LOG DBSA 30

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 09-21-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5			silt, 65% sand (poorly graded, subround), moist and very dense. Sand: approximately 10% mafics, 90% felsics; Gravel: approximately 50% basalt, 50% rhyolite. Gravel occurs as 6" thick beds.						
35									
37.5		SM	...slower more resistant drilling. Brown (10 YR 5/3) silty SAND (approximately 30% silt, 70% sand (well graded, subangular), moist, weakly cemented and very dense. Sand: approximately 90% andesite/felsics, 10% mafics.						
40		SM	...collected DBSA-30-Q-40, PID's: 10.6 eV= 2.4 ppmv, 11.7 eV= 0.5 ppmv. Very pale brown (10 YR 7/3) silty SAND with gravel (approximately 20% gravel (well graded, subangular), approximately 20% silt, 60% sand (well graded, subangular), moist and very dense. Sand: approximately 20% mafics, 80% felsics; Gravel: approximately 40% andesite, 20% basalt, 40% rhyolite.						
42.5									
45									
47.5									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

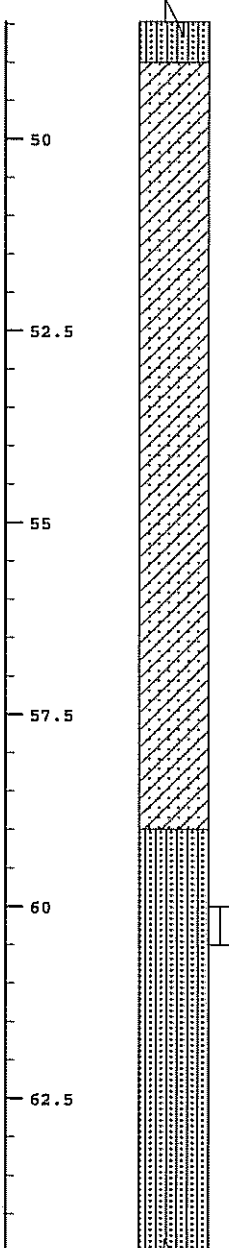
# EXPLORATION LOG DBSA 30

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 09-21-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
50		SC	Yellowish brown (10 YR 5/4) clayey SAND with gravel (approximately 15% gravel (well graded, subangular), approximately 30% clay, 55% sand, (poorly graded, subrounded), moist. Sand: approximately 15% mafics, 85% felsics; Gravel: approximately 90% andesite, 10% rhyolite. ...collect DBSA-30-Q-50. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
52.5			...minor 0.5" thick lean CLAY layers.						
55									
57.5									
60		SM	Very pale brown (10 YR 7/4) silty SAND (approximately 10% gravel (poorly graded, subangular), 25% silt, 75% sand (well graded, subrounded), moist and very dense. Sand: approximately 10% mafics, 90% felsics; Gravel: consists of 100% andesite. ...collected DBSA-30-Q-60. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
62.5									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

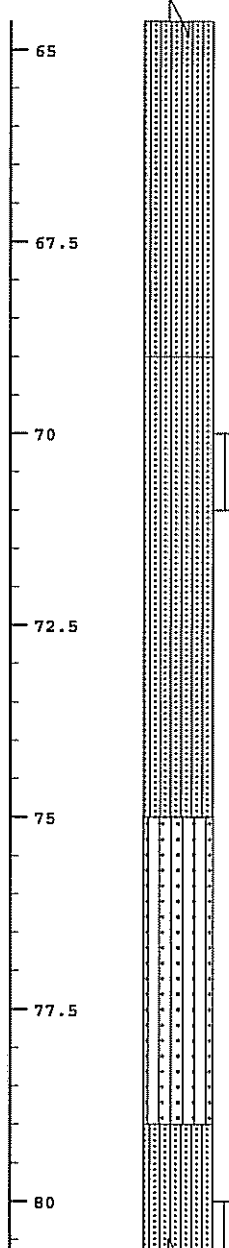
# EXPLORATION LOG DBSA 30

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 09-21-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65									
67.5									
70		SM	Brownish yellow (10 YR 6/6) silty SAND with gravel (approximately 20% gravel (poorly graded, subrounded), approximately 15% silt, 65% sand (well graded, subrounded), moist and very dense. Sand: approximately 5% chlorite, 10% mafics, 85% felsics; Gravel: approximately 80% andesite, 20% latite. ...collected DBSA-30-Q-70. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
72.5									
75		SP-SM	Light yellowish brown (10 YR 6/4) poorly graded SAND with silt (approximately 10% silt, 90% sand (subrounded), moist and very dense. Weakly cemented nodules; Sand: approximately 5% mafics, 95% felsics, trace gypsum.						
77.5									
80		SM	Very pale brown (10 YR 7/4) silty SAND with gravel (approximately 20% gravel (well graded, subangular), approximately 15% silt, 65% sand (well graded,						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.



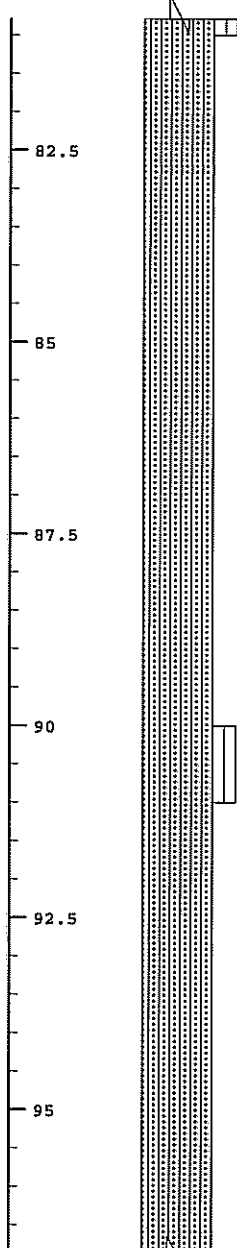
# EXPLORATION LOG DBSA 30

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 09-21-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			<p>subrounded), moist and very dense. Sand: approximately 10% mafics, 90% felsics: Gravel: approximately 20% green chloritic andesite, 70% latite, 10% rhyolite. Sequence is thinly bedded. ...collected DBSA-30-Q-80. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...collected DBSA-30-Q-90. PIDs: 10.6, 11.7 eV = 0.0 ppmV. same soil as 80' bgs.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG

## DBSA 30

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

**BORING LOCATION: SEE FIGURE 2**

**EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE**

**ELEVATION:** EXISTING GROUND SURFACE

**PROJECT NO.:** 20072226V1

**EXPLORATION DATE:** 09-21-07

EQUIPMENT: SONIC DRILL RIG

LOGGED BY: M. MELHORN

**INITIAL DEPTH TO WATER:** NOT ENCOUNTERED

FINAL DEPTH TO WATER: NOT ENCOUNTERED

**DATE MEASURED:** N/A

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			<p>...collected DBSA-30-Q-100, PID's: 10.6 eV= 0.8 ppmv: same soil as 80' bgs.</p> <p>...collected DBSA-30-Q-110. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...weakly cemented layers.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

**Figure No. 22**

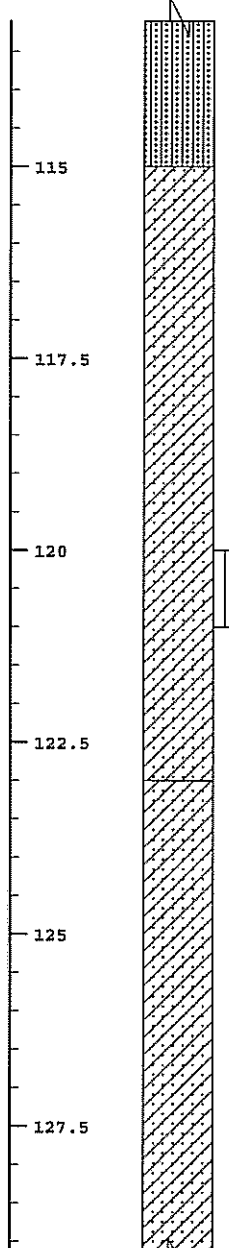
# EXPLORATION LOG DBSA 30

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 09-21-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
115									
117.5		SC	Yellowish brown (10 YR 5/4) clayey SAND (approximately 5% gravel (poorly graded, subangular), approximately 20% clay, 75% sand (well graded, subrounded), moist and very dense. Sand: approximately 5% mafics, 95% felsics; Gravel: approximately 100% andesite.  ...clay increases to approximately 40%, wet in bands.  ...collected DBSA-30-Q-120. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
120									
122.5									
125		SC	...wet at 123'. Mottled brown (7.5 YR 4/4) clayey SAND with gravel (approximately 20% gravel (well graded, subangular) approximately 20% clay, 60% sand (coarse, well graded, subrounded), wet and very dense. Sand: approximately 20% mafics, 80% felsics; Gravel: approximately 30% rhyolite, 30% andesite (chloritic), 40% basalt.						
127.5									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG

## DBSA 30

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
BORING LOCATION: SEE FIGURE 2  
EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
EXPLORATION DATE: 09-21-07  
EQUIPMENT: SONIC DRILL RIG  
LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			<p>...collected DBSA-30-Q-130. PIDs: 10.6, 11.7 eV = 0.0 ppmV. ...clay occurs as 2" thick beds; gravel consists of approximately 30% chloritic andesite, 40% basalt, 30% latite.</p> <p>...collected DBSA-30-Q-140. PIDs: 10.6, 11.7 eV = 0.0 ppmV.; same soil as 123' bgs except: brown (7.5 YR 5/4) sandy lean CLAY with gravel occurs as 2. 0" wide beds.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

**Figure No. 22**

# EXPLORATION LOG DBSA 30

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. CARBIDE TIP SHOE  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 09-21-07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: M. MELHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
147.5									
150		CL	Muddy Creek Formation: Yellowish brown (7.5 YT 5/4) sandy lean CLAY (approximately 40% sand (well graded, subrounded, approximately 60% course sand, 20% medium sand, 20% fine sand), wet and very stiff. Sand: approximately 50% mafics, 50% felsics. Sand contains 1.0" thick interbeds of: yellowish brown (7.5 YR 5/4) clayey SAND with gravel (approximately 15% gravel (poorly graded, subangular, approximatley 20% medium gravel, 80% fine gravel), approximatley 20% clay, 65% sand (well graded, subrounded, approximately 40% course sand, 30% medium sand, 30% fine sand), wet and very stiff. Sand: approximately 10% chloritic, 30% mafics, 60% felsics; Gravel: approximately 60% latite, 40% andesite. ...collected DBSA-30-T-150, and DBSA- 30- T-150-MS/MSD.						
152.5									
155									
157.5									
160			...sample DBSA-30-T-160, same soil as 147.5' bgs. END OF BORING AT 160.0 FEET						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made.  
 It is not intended to be representative of subsurface conditions at other locations or times.

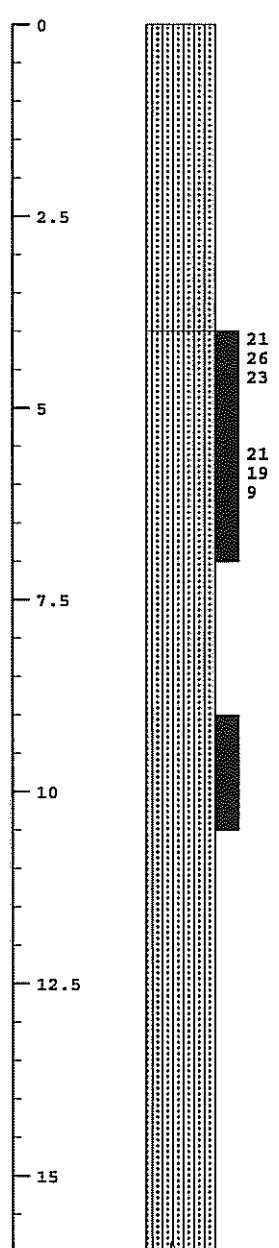
# EXPLORATION LOG DBSA-32

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 8/14/07  
 EQUIPMENT: DIEDRICH D-120 DRILL RIG  
 LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: 67.0'  
 FINAL DEPTH TO WATER: 66.1'

DATE MEASURED: 8/14/07  
 DATE MEASURED: 8/14/07

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		SM	Yellowish brown silty SAND with gravel, dry and loose.						
2.5		SM	Yellowish brown silty SAND, moist and medium dense. Sand is subrounded, well-graded, has 30% mafics/biotite, 70% felsics. Gravel is angular, poorly graded, with 30% rhyolite, 30% basalt, 40% andesite. Sequence is thinly bedded. Approximately 20% silt, 10% gravel, 70% sand. Samples DBSA- 32-Q-5 and DBSA-32-Q-5-FD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.  ...same soil as 4' bgs except: 5% gravel, 20% silt, 75% sand; gravel consists of 10% rhyolite, 30% andesite, 60% latite. Sample DBSA-32-Q-10. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
5									
7.5									
10									
12.5									
15									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG

## DBSA-32

**PROJECT: BRC DEEP BACKGROUND INVESTIGATION**

**BORING LOCATION: SEE FIGURE 2**

**EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER**

**ELEVATION:** EXISTING GROUND SURFACE

**PROJECT NO.:** 20072226V1

**EXPLORATION DATE:** 8/14/07

EQUIPMENT: DIEDRICH D-120 DRILL RIG

**LOGGED BY:** M. MEHLHORN

INITIAL DEPTH TO WATER: 67.0'

FINAL DEPTH TO WATER: 66.1'

**DATE MEASURED:** 8/14/07

DATE MEASURED: 8/14/07

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			<p>...same soil as 4' bgs, andesite clasts contain chlorite and epidote, very dense. Sample DBSA-32-Q-20. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						
		SM	<p>Very pale brown silty SAND with gravel, moist, weakly cemented and very dense. Sand is subrounded, well-graded with 5% biotite, 25% mafics, 70% felsics. Gravel is angular, poorly graded, 70% rhyolite, 10% andesite, 10% latite, 10% weakly cemented sand. Approximately 25% silt, 25% gravel, 50% sand.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

**Figure No. 23**

# EXPLORATION LOG DBSA-32

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 8/14/07

EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER

EQUIPMENT: DIEDRICH D-120 DRILL RIG

ELEVATION: EXISTING GROUND SURFACE

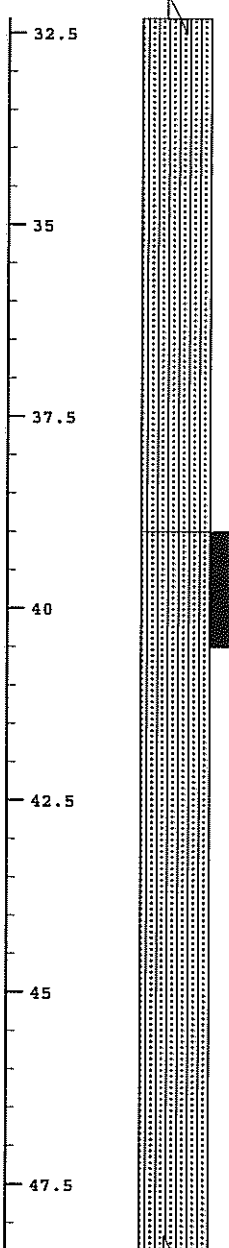
LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: 67.0'

DATE MEASURED: 8/14/07

FINAL DEPTH TO WATER: 66.1'

DATE MEASURED: 8/14/07

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5 35 37.5			...sample DBSA-32-Q-30. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
40 42.5 45 47.5		SM	Light reddish brown silty SAND, moist, weakly cemented and very dense. Sand is subangular, well-graded, 50% rhyolite, 40% andesite, 10% felsics. Approximately 20% silt, 80% sand. ...sample DBSA-32-Q-40. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 23



# EXPLORATION LOG

## DBSA-32

**BORING LOCATION: SEE FIGURE 2**

**ELEVATION:** EXISTING GROUND SURFACE

[illegible]

**EXPLORATION DATE:** 8/14/07

LOGGED BY: M. MEHLHORN

**LOGGED BY: AN WILHELMSON**

FINAL DEPTH TO WATER: 66.1'

DATE MEASURED: 8/14/07

DATE MEASURED: 8/14/07

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			<p>...same soil as 39' bgs except: 5% gravel (subangular, poorly graded, 100% latite), 20% silt, 75% sand. ...sample DBSA-32-Q-50. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...same soil as 39' bgs except: yellowish brown, 15% silt, 10% gravel (angular, poorly graded, 20% rhyolite, 80% latite) 75% sand (20% mafics (biotite), 80% felsics). ...sample DBSA-32-Q-60. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

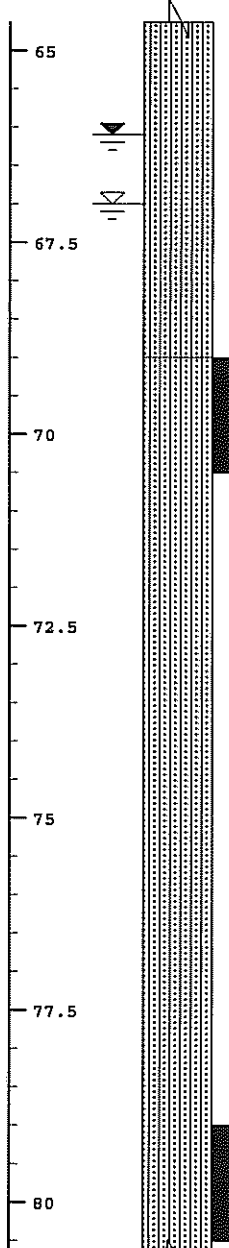


# EXPLORATION LOG DBSA-32

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 8/14/07  
 EQUIPMENT: DIEDRICH D-120 DRILL RIG  
 LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: 67.0'  
 FINAL DEPTH TO WATER: 66.1'

DATE MEASURED: 8/14/07  
 DATE MEASURED: 8/14/07

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
65			...final ground water depth.						
67.5			...initial groundwater depth.						
70		SM	<p>MUDDY CREEK FORMATION:            Yellowish brown silty SAND with gravel,            wet, weakly cemented and very dense.            Sand is subangular, well-graded, consists            of 30% mafics (as chlorite, andesite), 70%            felsics (latite, rhyolite). Gravel is angular,            poorly graded, and same composition as            sand. Approximately 20% silt, 20% gravel,            60% sand.            ...sample DBSA-32-Q-70.            ...collect groundwater sample DBSA-32-            GW.</p>						
72.5									
75									
77.5									
80			...same soil as 69' bgs, sample DBSA-32-T-80.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made.  
 It is not intended to be representative of subsurface conditions at other locations or times.

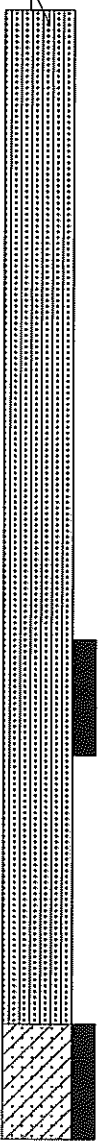
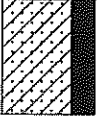
# EXPLORATION LOG DBSA-32

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. H.S. AUGER  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 8/14/07  
 EQUIPMENT: DIEDRICH D-120 DRILL RIG  
 LOGGED BY: M. MEHLHORN

INITIAL DEPTH TO WATER: 67.0'  
 FINAL DEPTH TO WATER: 66.1'

DATE MEASURED: 8/14/07  
 DATE MEASURED: 8/14/07

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
82.5									
85									
87.5									
90			...same soil as 69' bgs. No sample recovery: re-sample at 94.0'.						
92.5									
95		SC	Reddish yellow clayey SAND, wet, weakly cemented and very dense. Sand is subangular, well-graded, with 40% mafics (chloritically altered andesite), 60% felsics (latite, rhyolite). Approximately 40% lean clay, 60% sand. Sample DBSA-32-T-95.						
			END OF BORING AT 95.5 FEET						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

Figure No. 23

# EXPLORATION LOG DBSA-33

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 9/17/07

EXPLORATION SIZE (dia.): 6" O.D. SAMPLER

EQUIPMENT: SONIC DRILL RIG

ELEVATION: EXISTING GROUND SURFACE

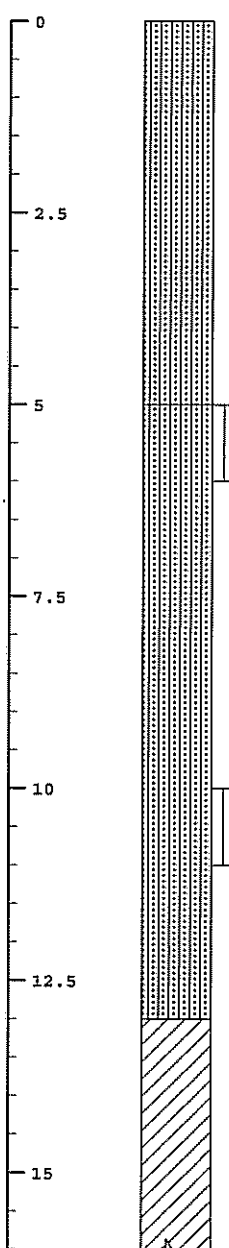
LOGGED BY: HILLMAN/MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
0		SM	Light yellowish brown (10YR 6/4) silty SAND (Approximately 10% gravel (poorly graded, subangular), 15% silt, 75% sand (well-graded, subangular), dry and loose. Sand has approximately 20% rhyolite, 15% mafics, 30% andesite, 35% felsics. Gravel consists of 80% rhyolite, 20% basalt.						
2.5									
5		SM	Reddish yellow (7.5 YR 6/6) silty SAND with gravel (Approximately 20% gravel (poorly graded, subrounded), 20% silt, 60% sand (subrounded, poorly graded), moist and very dense. Sand has 90% felsics, 10% mafics. Gravel consists of 10% rhyolite, 90% basalt. ...sample DBSA-33-5. PIDs: 10.6, 11.7 eV = 0.0 ppmV.  ...sample DBSA-33-10. PIDs: 10.6, 11.7 eV = 0.0 ppmV.						
7.5									
10									
12.5									
15		CL	MUDDY CREEK FORMATION: Reddish yellow (7.5YR 6/6) sandy lean CLAY (Approximately 30% sand (poorly graded, subrounded), 70% lean clay), moist and very stiff. Sand has 15% gypsum (as veinlets and crystals), 75% felsics.						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 24

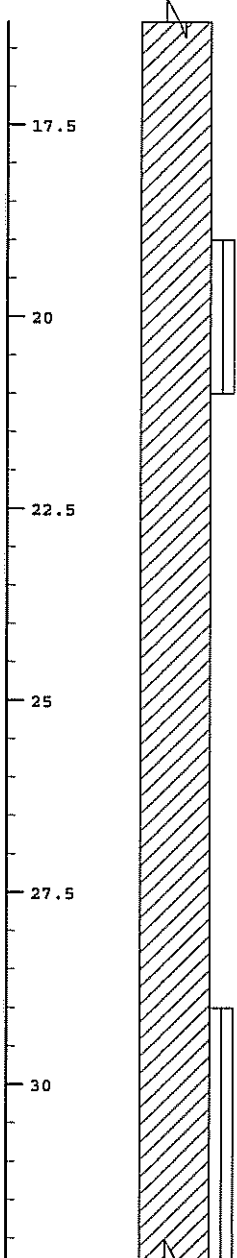
# EXPLORATION LOG DBSA-33

PROJECT: BRC DEEP BACKGROUND INVESTIGATION  
 BORING LOCATION: SEE FIGURE 2  
 EXPLORATION SIZE (dia.): 6" O.D. SAMPLER  
 ELEVATION: EXISTING GROUND SURFACE

PROJECT NO.: 20072226V1  
 EXPLORATION DATE: 9/17/07  
 EQUIPMENT: SONIC DRILL RIG  
 LOGGED BY: HILLMAN/MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED  
 FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A  
 DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
			<p>...0.5" thick weakly cemented clay layers with gypsum veins.</p> <p>...samples DBSA-33-20 and DBSA-33-20-FD. PIDs: 10.6, 11.7 eV = 0.0 ppmV.</p> <p>...light brown (7.5YR 6/4), approximately 35% sand, 65% lean clay.</p> <p>...sample DBSA-33-T-30. Pid's: 11.7eV = 0.0 ppmv, 10.6eV = 1.7 ppmv.</p> <p>...sand occurs as 1/8" laminations.</p>						

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made. It is not intended to be representative of subsurface conditions at other locations or times.

# EXPLORATION LOG DBSA-33

PROJECT: BRC DEEP BACKGROUND INVESTIGATION

PROJECT NO.: 20072226V1

BORING LOCATION: SEE FIGURE 2

EXPLORATION DATE: 9/17/07

EXPLORATION SIZE (dia.): 6" O.D. SAMPLER

EQUIPMENT: SONIC DRILL RIG

ELEVATION: EXISTING GROUND SURFACE


LOGGED BY: HILLMAN/MEHLHORN

INITIAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

FINAL DEPTH TO WATER: NOT ENCOUNTERED

DATE MEASURED: N/A

ELEVATION/ DEPTH	SOIL & SAMPLE SYMBOLS	USCS	DESCRIPTION	PI	LL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL (%)	POCKET PENETROMETER (tsf)
32.5			END OF BORING AT 32.5 FEET						
35									
37.5									
40									
42.5									
45									
47.5									

The descriptions contained within this exploration log apply only at the specific exploration location and at the time the exploration was made.  
It is not intended to be representative of subsurface conditions at other locations or times.

**GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.**

Figure No. 24

**APPENDIX C**  
**CHAIN OF CUSTODY FORMS**

**ERIM CONTACT PERSON**  
Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

FED EX #:

SAMPLE#(S) PRINTED NAME AND SIGNATURE

SAMPLER(S) FINISHED NAME AND ORGANIZATION	
PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT	
PROJECT NUMBER:	Container

[illegible][illegible]

\* Please refer to Table 2 (emailed on 7/16/07)

- 1 Analyze at TA-Sacramento
- 2 Analyze at TA-Richland
- 3 Analyze at TA-Irvine

### 3 Analyze at TA-Irvine

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

RELINQUISHED BY: *Mary Appleton*  
RECEIVED BY: *S. R. Smith*

North Melbourne	GA-1	GA-1
-----------------	------	------

9/16	7/8	13.43	2/5/13
------	-----	-------	--------

**RELINQUISHED BY:**

[illegible]

1000

[illegible]

RECEIVED BY:

**Figure 1**

---

10

**For Lab Use Only: Sample Condition Upon Receipt:**

**ORIGINAL:** Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office



# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #: \_\_\_\_\_

SAMPLER(S) PRINTED NAME AND SIGNATURE: Monty Mehler Date: \_\_\_\_\_

ANALYSIS REQUEST										
METALS* + Hex Chrome <sup>6</sup>	RADIONUCLIDES <sup>2</sup>	PERCHLORATE <sup>1</sup>	VOCs <sup>7</sup>	SVOCs + Aldehydes <sup>3</sup> & dichlorobenzil <sup>5</sup>	ORGANOCHLORINE PEST *	IONS*	Gen. Chem*	PHYS. PARAMETERS <sup>4</sup>	GRAIN SIZE	PERCENT MOISTURE <sup>5</sup>

## Comments/Instructions:

- \* Please refer to Table 2 (emailed on 7/16/07)
- <sup>1</sup> Analyze at TA-Sacramento
- <sup>2</sup> Analyze at TA-Richland
- <sup>3</sup> Analyze at TA-Irvine
- <sup>4</sup> Analyze at TA-Burlington
- <sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

Signature: \_\_\_\_\_ Print Name: \_\_\_\_\_

RELINQUISHED BY: Monty Mehler Company Name/Title: GES/Geslogist Date: 8/6/07 Time: 1700

RECEIVED BY: FEL EX

RELINQUISHED BY: \_\_\_\_\_

RECEIVED BY: \_\_\_\_\_

For Lab Use Only: Sample Condition Upon Receipt: \_\_\_\_\_

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office



# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #: 859392550075

Date: 8/7/07

SAMPLER(S) PRINTED NAME AND SIGNATURE

Monty Mehlerhorn / Monty Mehlerhorn

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT	PROJECT NUMBER:	SAMPLE ID	DATE	TIME	Container						METALS* + Hex Chrome <sup>6</sup>	RADIONUCLIDES <sup>2</sup>	PERCHLORATE <sup>1</sup>	VOCs* <sup>3</sup>	SVOCs + Aldehydes <sup>3</sup> &	dichlorobenzil <sup>3</sup>	ORGANOCHLORINE PEST <sup>4</sup>	IONS*	Gen. Chem*	PHYS. PARAMETERS <sup>4</sup>	GRAIN SIZE	PERCENT MOISTURE <sup>5</sup>
					Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	EDA											
DBSA-2-Q-10	5	8/7/07	0845	X																		
DBSA-2-Q-10		8/7/07	0855	X																		
DBSA-2-Q-20		8/7/07	0945	X																		
DBSA-2-Q-20 (FD)		8/7/07	0945	X																		
DBSA-2-Q-30		8/7/07	1005	X																		
DBSA-2-Q-40		8/7/07	1005	X																		
DBSA-2-Q-50		8/7/07	1115	X																		
DBSA-2-Q-60		8/7/07	1140	X																		

## Comments/Instructions:

- \* Please refer to Table 2 (emailed on 7/16/07)
- 1 Analyze at TA-Sacramento
- 2 Analyze at TA-Richland
- 3 Analyze at TA-Irvine
- 4 Analyze at TA-Burlington
- 5 Please report results in dry weight, therefore all soil will require % moisture testing.

RELINQUISHED BY: Monty Mehlerhorn	Signature:	Print Name:	Company Name/Title:	Date:	Time:
RECEIVED BY:		Monty Mehlerhorn	Geologist	8/7/07	1700
RELINQUISHED BY:				8/7/07	1700
RECEIVED BY:					
For Lab Use Only: Sample Condition Upon Receipt:					

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

**TERM CONTACT PERSON**

**Name:** Maria Barajas-Albalawi  
**Address:** 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
**Phone #:** (916) 924-9378

**LABORATORY: TestAmerica-St. Louis**  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #: 859390550638

9813 12330236

SAMPLER(S) PRINTED NAME AND SIGNATURE

Monty Mehlhorn Monty Mehlhorn

Date: 8/7/07

ANALYSIS REQUEST											
PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT											
PROJECT NUMBER:											
Container											
SAMPLE ID											
DATE											
TIME											
Unpres											
H2SO4											
HNO3											
HCl											
NaOH											
ZnAc											
EDA											
DBSA-2-Q-80											
8/7/07											
1240											
DBSA-2-Q-80 (MS/MSD)											
8/7/07											
1240											
DBSA-2-Q-70											
8/7/07											
1200											
METALS* + Hex Chrome <sup>3</sup>											
RADIONUCLIDES <sup>2</sup>											
PERCHLORATE <sup>1</sup>											
VOCs <sup>7</sup>											
SVOCs + Aldehydes <sup>3</sup> & dichlorobenzil <sup>3</sup>											
ORGANOCHLORINE PEST *											
IONS*											
Gen. Chem*											
PHYS. PARAMETERS <sup>4</sup>											
GRAIN SIZE											
PERCENT MOISTURE <sup>5</sup>											

**Comments/Instructions:**

Please refer to Table 2 (emailed on 7/16/07)

<sup>4</sup> Analyze at TA-Burlington

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

### Analyze at TA-Sacramento

## 2. Analyze at TA-Richland

### Analyze at TA-Irvine

**Signature:**

**Print Name:**

**Company Name/Title:**

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

RECEIVED BY: Mandy Medlin

Marty Melhorn

605/Geologist

DATE: 11/15/2017

RELINQUISHED BY:

1585

1

08/7/07 1350

RECEIVED BY:

.....

100

---

**For Lab Use Only: Sample Condition Upon Receipt:**

**ORIGINAL:** Send with sample (sign only in blue or black ink)

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# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #:

Date: 8/18/07

SAMPLER(S) PRINTED NAME AND SIGNATURE

Monty Melhorn / Monty Melhorn

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

SAMPLE ID

Rinsate 2-8-8-07

DATE

8/18/07

TIME

1130

Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc NaOH EDA

ANALYSIS REQUEST

METALS\* + Hex Chrome<sup>3</sup> PERCHLORATE<sup>1</sup> SVOCs\* VOCs<sup>3</sup> + Aldehydes<sup>3</sup> & dichlorobenzil<sup>3</sup> ORGANOCHLORINE PEST\* IONS\* Gen. Chem\* PHYS. PARAMETERS<sup>4</sup> GRAIN SIZE PERCENT MOISTURE<sup>5</sup>

## Comments/Instructions:

- \* Please refer to Table 2 (emailed on 7/16/07)
- <sup>1</sup> Analyze at TA-Sacramento
- <sup>2</sup> Analyze at TA-Richland
- <sup>3</sup> Analyze at TA-Irvine
- <sup>4</sup> Analyze at TA-Burlington
- <sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

Signature:

RELINQUISHED BY: Monty Melhorn

Print Name:

Monty Melhorn

Company Name/Title:

GES/Geologist  
Test America

Date:

8/18/07 1500

RECEIVED BY:

8/18 17:00

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

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ERIM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

**LABORATORY: TestAmerica-St. Louis**  
**Contact Person: Jerry Everett**  
**Address: 13715 Ridler Trail North**  
**Earth City, Missouri 63045**  
**Phone: (314) 298-8590**

送金

Date: 8/8/07

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Morty Melhorn / Morty Melhorn

## ANALYSIS REQUEST

[illegible]**Comments/Instructions:**

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>4</sup> Analyze at TA-Burlington

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

<sup>2</sup> Analyze at TA-Richland

### 3 Analyze at TA-Irvine

### Sinatra's

**Print Name:**

**Company Name/Title:**

10

RECEIVED BY:

Alonso Rodriguez

11/11/11

~~Company Name~~  
~~GES/Geologist~~  
~~T. N.~~

Date:	11/16/2005
Time:	15:00

**RELINQUISHED BY:**

**Figure 1**

**Figure 1**

# SECRET

1

**For Lab Use Only: Sample Condition Upon Receipt:**

**ORIGINAL: Send with sample (sign only in blue or black ink)**

**COPIES: Retained by Sampler, Sent to Office**



**ERM CONTACT PERSON**

Address: 2525 Natomas Park Drive, Suite 350

Phone #: (916) 924-9378

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Monty Melhorn / Monty Melhorn

**LABORATORY: TestAmerica-St. Louis**  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

Phone: (314) 298-8566

Date: 8/8/07

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT		Container		ANALYSIS REQUEST	
PROJECT NUMBER:					
SAMPLE ID	DATE	TIME	Unpres	H2SO4	HNO3
DBSA-3-Q-5	8/8/07	0750	X		
DBSA-3-Q-10	8/8/07	0810	X		
DBSA-3-Q-20	8/8/07	0900	X		
DBSA-3-Q-20(FD)	8/8/07	0900	X		
DBSA-3-Q-30	8/8/07	0915	X		
DBSA-3-Q-40	8/8/07	0930	X		
DBSA-3-Q-50	8/8/07	0945	X		
DBSA-3-Q-60	8/8/07	1000	X		

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>2</sup> Analyze at TA-Richland

### 3 Analyze at TA-Irvine

<sup>4</sup> Analyze at T<sub>A</sub>-Burlington

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

Signature:

RELINQUISHED BY: *Monty Mehlhorn*  
RECEIVED BY:

RECEIVED BY:

RELINQUISHED BY:

RECEIVED BY:

**Print Name:**

Marty Melhorn

FedEx

Company Name/Title:

GES/Geologist

Time:

DATE: 8/8/07	TIME: 1700
--------------	------------

**For Lab Use Only: Sample Condition Upon Receipt:**

**ORIGINAL: Send with sample (sign only in blue or black ink)**

**COPIES: Retained by Sampler, Sent to Office**

**ERM CONTACT PERSON**

**Name:** Maria Barajas-Albalawi  
**Address:** 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
**Phone #:** (916) 924-9378

**LABORATORY: TestAmerica-St. Louis**  
**Contact Person: Jerry Everett**  
**Address: 13715 Rider Trail North**  
**Earth City, Missouri 63045**  
**Phone: (314) 298-8566**

FED EX #: 859390553225, 859390553258, 859390553269

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Date: 8/8/07

Monty Melhorn / Monty Meller

[illegible]

**Comments/Instructions:**

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>4</sup> Analyze at TA-Burlington

<sup>1</sup> Analyze at TA-Sacramento

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

## 2 Analyze at TA-Richland

### 3 Analyze at TA-Irvine

**Signature:**

Print Name: \_\_\_\_\_

**Company Name/Title:**

Time:

RELINQUISHED BY: \_\_\_\_\_  
RECEIVED BY: \_\_\_\_\_

Marty Mehlhorn

Company Name/Title  
GES/Geologist

உ

**RELINQUISHED BY:**

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

**ORIGINAL:** Send with sample (sign only in blue or black ink)

**COPIES: Retained by Sampler, Sent to Office**

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke/Richard Cooke*

Date: 10-19-07

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT  
PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container						Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc	NaOH	EDA
DBSA 4-Q-20	10-19-07	1630							X							
DBSA 4-Q-20-FD		1630							X							
DBSA 4-Q-30		1645							X							
DBSA 4-Q-40		1700							X							
DBSA 4-Q-50		1730							X							
DBSA 4-Q-50-FD		1730							X							
DBSA 4-Q-50-M/S/MSD		1730							X							
DBSA 4-Q-60		1745							X							
DBSA 4-Q-70		1815							X							

Hex Chrome 7196

Hold  
At 24h

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

RELINQUISHED BY: *Richard Cooke* Signature:

RECEIVED BY: *Richard Cooke* Print Name:

Company Name/Title:

Date:

Time:

10-22-07 8:39

RELINQUISHED BY:

*Quinn*

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #:

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

Date: 10-17-07

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc/ NaOH EDA

SAMPLE ID

DATE

TIME

10-19-07 1745

DBSA 4-2-60

10-19-07 1815

DBSA 4-2-70

ANALYSIS REQUEST

METALS\* + Hex Chrome<sup>3</sup>

RADIONUCLIDES<sup>2</sup>

PERCHLORATE<sup>1</sup>

VOCs\*

IONS\*

Gen. Chem\*

PHYS. PARAMETERS<sup>4</sup>

GRAIN SIZE

PERCENT MOISTURE<sup>5</sup>

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>1</sup> Analyze at TA-Sacramento

<sup>2</sup> Analyze at TA-Richland

<sup>3</sup> Analyze at TA-Irvine

<sup>4</sup> Analyze at TA-Burlington  
<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

RELINQUISHED BY: *Richard Cooke* Signature:

RECEIVED BY: *Felix Arr Hill*

RELINQUISHED BY:

RECEIVED BY:

Print Name:

*Richard Cooke*

Company Name/Title:

*Geo-Log, Inc.*

Date:

*10-22-07*

Time:

*1200*

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #:

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cowle / Richard Cowle*

Date: 10-18-07

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT  
PROJECT NUMBER:

Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc/ NaOH EDA

SAMPLE ID DATE TIME

Twp Blank 10-19-07 1555

DBSA 4-Q-5 10-19-07 1605

DBSA 4-Q-10 10-19-07 1610

DBSA 4-Q-20 10-19-07 1630

DBSA 4-Q-20-FD 10-19-07 1630

DBSA 4-Q-30 10-19-07 1645

DBSA 4-Q-40 10-19-07 1700

DBSA 4-Q-50 10-19-07 1736

DBSA 4-Q-50-FD 10-19-07 1736

DBSA 4-Q-50-M5/M5D 10-19-07 1736

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

1 Analyze at TA-Sacramento

2 Analyze at TA-Richland

3 Analyze at TA-Irvine

4 Analyze at TA-Burlington

5 Please report results in dry weight, therefore all soil will require % moisture testing.

RELINQUISHED BY: *Richard Cowle* Signature:

RECEIVED BY: *Fed Ex Air Mail*

*Richard Cowle* Print Name:

Company Name/Title:

Date:

Time:

10-22-07 1200

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz.  
Address: 1014 E. Cooley Drive, Site A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

Date: 10-20-07

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

Container

SAMPLE ID	DATE	TIME	Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc	ED
DB5A 4-Q-80	10-20-07	0700	X						
DB5A 4-Q-90	10-20-07	0745	X						
DB5A 4-Q-100	10-20-07	0835	X						
DB5A 4-Q-110	10-20-07	0845	X						
DB5A 4-Q-120	10-20-07	1055	X						
DB5A 4-Q-120FE	10-20-07	1055	X						
DB5A 4-Q-130	10-20-07	1140	X						
VA5A 4-Q-140	10-20-07	1220	X						
DB5A 4-Q-150	10-20-07	1245	X						
DB5A 4-Q-160	10-20-07	1310	X						

Hex Chrome 7196

Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

Signature:

Print Name:

Company Name/Title:

Date:

Time:

RELINQUISHED BY: *Richard Cooke* RECEIVED BY: *Richard Cooke* Date: 10-22-07 Time: 8:37

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

## ERM CHAIN OF CUSTODY RECORD

**ERM CONTACT PERSON**

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

## LABORATORY: TestAmerica-St. Louis

**Contact Person: Jerry Everett**  
**Address: 13715 Rider Trail North**  
**Earth City, Missouri 63045**  
**Phone: (314) 298-8566**

FED EX #

Date: 6-28-07

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Richard Cable / Richard Cable

## ANALYSIS REQUEST

Richard Cooke A/Purford Cook									
PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT									
PROJECT NUMBER:									
SAMPLE ID	DATE	TIME	Container						
			Unpres	H2SO4	HNO3	HCl	NaOH		ZnAc/ NaOH
DBSA 4-Q-80	10-20-07	0700	X						
DBSA 4-Q-90	10-20-07	0745	X						
DBSA 4-Q-100	10-20-07	0835	X						
DBSA 4-Q-110	10-20-07	0945	X						
DBSA 4-Q-120	10-20-07	1055	X						
DBSA 4-Q-120-FD	10-20-07	1055	X						
DBSA 4-Q-130	10-20-07	1140	X						
DBSA 4-Q-140	10-20-07	1220	X						
DBSA 4-Q-150	10-20-07	1245	X						
DBSA 4-Q-160	10-20-07	1310	X						

**Comments/Instructions:**

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>4</sup> Analyze at TA-Burlington

<sup>1</sup> Analyze at TA-Sacramento

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

## 2 Analyze at TA-Richland

### 3 Analyze at TA-Irvine

**Signature:**

Print Name: \_\_\_\_\_

**Company Name/Title:**

**Time:**

**RELINQUISHED BY:**

RELINQUISHED BY: Michael Burke

Print Name Richard Double

Date.	11/11/07
Time.	1700

**RELINQUISHED BY:**

RELINQUISHED BY:

RECEIVED BY:

RECEIVED BY:

**For Lab Use Only: Sample Condition Upon Receipt:**

For Lab Use Only: Sample Condition Upon Receipt:

**ORIGINAL:** Send with sample (sign only in blue or black ink)

**COPIES: Retained by Sampler, Sent to Office**

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

Date: 10-17-07

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container					
			Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH
DBSA 8-Q-20	10-17-07	1430	X					
DBSA 8-Q-20-FD		1430	X					
DBSA 8-Q-30		1450	X					
DBSA 8-Q-40		1515	X					
DBSA 8-Q-50		1540	X					
DBSA 8-Q-50-FD		1540	X					
DBSA 8-Q-50-M9(mf)		1540	X					
DBSA 8-Q-60		1555	X					
DBSA 8-Q-70		1615	X					
DBSA 8-Q-80		1640	X					

Hex Chrome 7196

Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

Signature:

Print Name:

RELINQUISHED BY: *Richard Cooke*

Company Name/Title: *Richard Cooke*

Date: 10/17/07

RECEIVED BY:

Company Name/Title: *GES/Geologist*

Date: 10/17/07

RELINQUISHED BY:

Company Name/Title: *Don Martine*

Date: 10/17/07

RECEIVED BY:

Company Name/Title:

Date:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office



# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

Date: 10-18-07

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT  
PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container					
			Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH
DBSA 8-Q-110	10-18-07	0645	X					
DBSA 8-Q-120	10-18-07	0730	X					
DBSA 8-Q-120-F	10-18-07	0730	X					
DBSA 8-Q-130	10-18-07	0900	X					
DBSA 8-Q-140	10-18-07	0940	X					
DBSA 8-Q-150	10-18-07	1025	X					
DBSA 8-Q-160	10-18-07	1030	X					

Hex Chrome 7196

Hold  
Hold  
Hold  
Hold  
Hold  
Hold

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

RELINQUISHED BY: *Richard Cooke* Signature:

RECEIVED BY: *Monty Melhorn*

RELINQUISHED BY: *Monty Melhorn*

RECEIVED BY: *Monty Melhorn*

Print Name:

*Richard Cooke*

*Monty Melhorn*

*Monty Melhorn*

Company Name/Title:

*GES/Geologist*

*GES/Geologist*

*GES/Geologist*

Time:

*0615*

*0615*

*0615*

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #: 857767992500

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cobble / Richard Cobble*

Date: 10-18-07

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT		ANALYSIS REQUEST																		
PROJECT NUMBER:	SAMPLE ID	DATE	TIME	Container						METALS* + Hex Chrome <sup>3</sup>	RADIONUCLIDES <sup>2</sup>	PERCHLORATE <sup>1</sup>	VOCs*	IONS*	Gen. Chem*	PHYS. PARAMETERS <sup>4</sup>	GRAIN SIZE	PERCENT MOISTURE <sup>5</sup>		
				Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc										NaOH	EDA
	DBSA 3-Q-110	10-18-07	0645	X							X	X	X	X	X	X	X	X	X	Hold
	DBSA 8-Q-120	10-18-07	0730	X							X	X	X	X	X	X	X	X	X	Hold
	DBSA 8-Q-120FD	10-18-07	0730	X							X	X	X	X	X	X	X	X	X	Hold
	DBSA 8-Q-130	10-18-07	0900	X							X	X	X	X	X	X	X	X	X	Hold
	DBSA 8-Q-140	10-18-07	0940	X							X	X	X	X	X	X	X	X	X	Hold
	DBSA 8-Q-150	10-18-07	1025	X							X	X	X	X	X	X	X	X	X	Hold
	DBSA 8-Q-160	10-18-07	1030	X							X	X	X	X	X	X	X	X	X	Hold

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>1</sup> Analyze at TA-Sacramento

<sup>2</sup> Analyze at TA-Richland

<sup>3</sup> Analyze at TA-Irvine

<sup>4</sup> Analyze at TA-Burlington

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

RELINQUISHED BY: <i>Richard Cobble</i>	Signature:	Print Name:	Company Name/Title:	Date:	Time:
RECEIVED BY: <i>Felix Air Bill</i>	<i>857767992500</i>		<i>TestAmerica</i>	<i>10-19-07</i>	<i>1200</i>
RELINQUISHED BY:					
RECEIVED BY:					

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office



# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #:

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

Date: 10-17-07

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT  
PROJECT NUMBER:

Container

SAMPLE ID DATE TIME

EDTA

ZnAc/

NaOH

HCl

HNO3

H2SO4

Unpres

PERCHLORATE<sup>1</sup>

VOCs<sup>2</sup>

IONS<sup>3</sup>

Gen. Chem<sup>4</sup>

PHYS. PARAMETERS<sup>4</sup>

GRAIN SIZE

PERCENT MOISTURE<sup>5</sup>

METALS\* + Hex Chrome<sup>3</sup>

RADIONUCLIDES<sup>2</sup>

ANALYSIS REQUEST

Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>1</sup> Analyze at TA-Sacramento

<sup>2</sup> Analyze at TA-Richland

<sup>3</sup> Analyze at TA-Irvine

<sup>4</sup> Analyze at TA-Burlington

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

RELINQUISHED BY: *Richard Cooke* Signature: *Richard Cooke* Print Name: *Richard Cooke*

RECEIVED BY: *Felix A. Bill* Company Name/Title: *GES/Geologist* Date: Time:

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #:

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

Date: 10-17-07

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT  
PROJECT NUMBER:

Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc/ NaOH EDA

SAMPLE ID

DATE

TIME

10-17-07 1555

10-17-07 1615

10-17-07 1640

10-17-07 1715

10-17-07 1750

DBSA 8-Q-60

DBSA 8-Q-70

DBSA 8-Q-80

DBSA 8-Q-90

DBSA 8-Q-100

ANALYSIS REQUEST

METALS\* + Hex Chrome<sup>3</sup>

RADIONUCLIDES<sup>2</sup>

PERCHLORATE<sup>1</sup>

VOCS\*

IONS\*

Gen. Chem\*

PHYS. PARAMETERS<sup>4</sup>

GRAIN SIZE

PERCENT MOISTURE<sup>5</sup>

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>1</sup> Analyze at TA-Sacramento

<sup>2</sup> Analyze at TA-Richland

<sup>3</sup> Analyze at TA-Irvine

<sup>4</sup> Analyze at TA-Burlington

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

RELINQUISHED BY: *Richard Cooke* Signature:

RECEIVED BY:

Print Name:

*Richard Cooke*

Company Name/Title:

*GES/Geology*

Date:

Time:

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Coote / Richard and Coote*

Date: 10-18-07

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT  
PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container					
			Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH

EDA

Hex Chrome 7196

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

RELINQUISHED BY: *Richard Coote* Signature:

RECEIVED BY: *Richard Coote* Print Name:

RELINQUISHED BY: *Richard Coote* Company Name/Title:

RECEIVED BY: *Richard Coote* Date:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #: 85 776 799 25 65

Date: 10-18-07

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

SAMPLE ID

DATE

TIME

Container

Unpres

H2SO4

HNO3

HCl

NaOH

ZnAc

NaOH

EDA

METALS<sup>1</sup>

RADIONUCLIDES<sup>2</sup>

PERCHLORATE<sup>1</sup>

VOCs<sup>3</sup>

IONS<sup>3</sup>

Gen. Chem<sup>3</sup>

Dissolved Gases

OP Pesticides<sup>3</sup>

OC Pesticides<sup>3</sup>

SVOCs<sup>3</sup>

Water Quality Parameters

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>1</sup> Analyze at TA-Sacramento

<sup>2</sup> Analyze at TA-Richland

<sup>3</sup> Analyze at TA-Denver

RELINQUISHED BY: *Richard Cooke*

SIGNATURE: *Richard Cooke*

RECEIVED BY: *FelEx A.R. 85 776 799 25 65*

RECEIVED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

Print Name:

*Richard Cooke*

Signature:

Company Name/Title:

*GES/Geologist*

Date:

*10-18-07*

Time:

*1700*

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

Date: 10-15-07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

Richard Cooke / Richard Cooke

## ANALYSIS REQUEST

### PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

#### PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container						Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	FDA
DBSA 9-Q-20	10-15-07	0830							X						
DBSA 9-Q-20-FD	10-15-07	0830							X						
DBSA 9-Q-30	10-15-07	0915							X						
DBSA 9-Q-40	10-15-07	0935							X						
DBSA 9-Q-50	10-15-07	0955							X						
DBSA 9-Q-50-FD	10-15-07	0955							X						
DBSA 9-Q-50-NUS(MSD)	10-15-07	0955							X						
DBSA 9-Q-60	10-15-07	1015							X						
DBSA 9-Q-70	10-15-07	1045							X						
DBSA 9-Q-80	10-15-07	1130							X						

Hex Chrome 7196

HELD  
HELD  
HELD

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

RELINQUISHED BY: Richard Cooke

Print Name:

Company Name/Title:

Date:

RECEIVED BY:

Richard Cooke

10-16-07

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office



# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

Date: 10-15-07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

## ANALYSIS REQUEST

### PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

#### PROJECT NUMBER:

#### Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc/ NaOH EDA

SAMPLE ID DATE TIME

DBSA 9-Q-90 10-15-07 1420

DBSA 9-Q-100 10-15-07 1455

DBSA 9-Q-110 10-15-07 1530

DBSA 9-Q-120 10-15-07 1610

DBSA 9-Q-120-FD 10-15-07 1610

DBSA 9-Q-130 10-15-07 1700

DBSA 9-Q-140 10-15-07 1800

Hex Chrome 7196

Hold

Hold

Hold

Hold

Hold

Hold

Hold

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

RELINQUISHED BY: *Richard Cooke* Signature:

RECEIVED BY:

Print Name:

*Richard Cooke*

Date:

10-16-07

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

Date: *10-16-07*

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT  
PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container					
			Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH

DBSA 9-Q-150 10-16-07 0720 X

DBSA 9-T-160 10-16-07 0750 X

Hex Chrome 7196

X

X

*Handwritten*

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

RELINQUISHED BY: *Richard Cooke* Signature: *Richard Cooke* Print Name: *Richard Cooke*

RECEIVED BY: *Richard Cooke* Company Name/Title: *GBS / Geologist* Date: *10-16-07* Time:

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #:

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cockle / Richard Cockle*

Date: 10-15-07

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT  
PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container				
			Unpres	H2SO4	HNO3	HCl	NaOH
<i>Top Blank</i>	10-15-07	0745				X	
<i>DBSA 9-Q-5</i>	10-15-07	0755	X				
<i>DBSA 9-Q-10</i>	10-15-07	0800	X				
<i>DBSA 9-Q-20</i>	10-15-07	0830	X				
<i>DBSA 9-Q-20-FD</i>	10-15-07	0830	X				
<i>DBSA 9-Q-30</i>	10-15-07	0915	X				
<i>DBSA 9-Q-40</i>	10-15-07	0935	X				
<i>DBSA 9-Q-50</i>	10-15-07	0955	X				
<i>DBSA 9-Q-50-FD</i>	10-15-07	0955	X				
<i>DBSA 9-Q-50-MIS/MSD</i>	10-15-07	0955	X				

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>1</sup> Analyze at TA-Sacramento

<sup>2</sup> Analyze at TA-Richland

<sup>3</sup> Analyze at TA-Irvine

<sup>4</sup> Analyze at TA-Burlington

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

RELINQUISHED BY: *Richard Cockle* Signature:

RECEIVED BY: *FedEx Air Bull* 459390550134

RECEIVED BY: *Richard Cockle* 85939055024, 859390550190

RECEIVED BY: *0189*

RECEIVED BY: *0178*

Print Name:

Company Name/Title:

Date:

Time:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

## ERM CONTACT PERSON

**LABORATORY: TestAmerica-St. Louis**  
 Contact Person: Jerry Everett  
 Address: 13715 Rider Trail North  
 Earth City, Missouri 63045  
 Phone: (314) 298-8566

Date: 10-15-67

Richard Cooke / Richard Cooke

Comments/Instructions:

<sup>4</sup> Analyze at TA-Burlington

5 Please report results in dry weight, therefore all soil will require % moisture testing.

### 3 Analyze at TA-Irvine

Print Name: \_\_\_\_\_

Richard Cooke

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

Geology 127

10-16-07	1700
----------	------

[illegible]

**Figure 1.** The effect of the concentration of the inhibitor on the rate of polymerization of styrene initiated by AIBN at 60°C. [Styrene] = 1.0 mol/L; [AIBN] = 0.001 mol/L; [Inhibitor] = 0.0001–0.001 mol/L. (●) DCP; (○) BPO; (□) KPS; (△) K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>.



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## ERM CONTACT PERSON

**LABORATORY: TestAmerica-St. Louis**  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Date: 10-16-07

**Comments/Instructions:**

<sup>4</sup> Analyze at TA-Burlington

<sup>4</sup> Analyze at TA-Burlington

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

Signature:

Print Name: \_\_\_\_\_

Richard Coole

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

0071209-0

**For Lab Use Only: Sample Condition Upon Receipt:**

**ORIGINAL:** Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Coston, CA 92324  
Phone: (949) 261-1022

FED EX #:

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

Date: 10-15-07

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT  
PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container					
			Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH
DBSA 9-Q-20	10-15-07	0830	X					
DBSA 9-Q-20-FD	10-15-07	0830	X					
DBSA 9-Q-30	10-15-07	0915	X					
DBSA 9-Q-40	10-15-07	0935	X					
DBSA 9-Q-50	10-15-07	0955	X					
DBSA 9-Q-50-FD	10-15-07	0955	X					
DBSA 9-Q-50-ANALYSIS	10-15-07	0955	X					
DBSA 9-Q-60	10-15-07	1015	X					
DBSA 9-Q-70	10-15-07	1045	X					
DBSA 9-Q-80	10-15-07	1130	X					

Hex Chrome 7196

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

RELINQUISHED BY: *Richard Cooke* Signature: *Richard Cooke* Print Name: *Richard Cooke*

RECEIVED BY: *Richard Cooke* Date: 10-16-07 Time: 12:59

RELINQUISHED BY: *Richard Cooke* Date: 10-16-07 Time: 12:59

RECEIVED BY: *Richard Cooke* Date: 10-16-07 Time: 12:59

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

Date: 10-15-07

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke/ Richard Cooke*

ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc NaOH EDA

SAMPLE ID DATE TIME

DBSA 9-Q-90 10-15-07 1420

DBSA 9-Q-100 10-15-07 1455

DBSA 9-Q-110 10-15-07 1530

DBSA 9-Q-120 10-15-07 1610

DBSA 9-Q-130 10-15-07 1610

DBSA 9-Q-140 10-15-07 1700

DBSA 9-Q-150 10-15-07 1800

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

RELINQUISHED BY: *Richard Cooke* Signature:

RECEIVED BY: *Salmassan*

Print Name:

*Richard Cooke*

Company Name/Title:

*TestAmerica*

Date:

*10-16-07*

Time:

*12:34*

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office





# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #:

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

Date: 10-16-07

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT  
PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container					EDTA	ANALYSIS REQUEST									
			Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	METALS* + Hex Chrome <sup>3</sup>	RADIONUCLIDES <sup>2</sup>	PERCHLORATE <sup>1</sup>	VOCs*	IONS*	Gen. Chem*	PHYS. PARAMETERS <sup>4</sup>	GRAIN SIZE	PERCENT MOISTURE <sup>5</sup>	
Twice Blank	10-16-07	1300				X												
DBSA 10-Q-5	10-16-07	1310	X															
DBSA 10-Q-10	10-16-07	1315	X															
DBSA 10-Q-20	10-16-07	1330	X															
DBSA 10-Q-20-FD	10-16-07	1330	X															
DBSA 10-Q-30	10-16-07	1350	X															
DBSA 10-Q-40	10-16-07	1405	X															
DBSA 10-Q-50	10-16-07	1430	X															
DBSA 10-Q-50-FD	10-16-07	1430	X															
DBSA 10-Q-50-MS/msl	10-16-07	1430	X															

## Comments/Instructions:

- \* Please refer to Table 2 (emailed on 7/16/07)
- <sup>1</sup> Analyze at TA-Sacramento
- <sup>2</sup> Analyze at TA-Richland
- <sup>3</sup> Analyze at TA-Irvine
- <sup>4</sup> Analyze at TA-Burlington
- <sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

RELINQUISHED BY: <i>Richard Cooke</i>	Signature:	Print Name:	Company Name/Title:	Date:	Time:
RECEIVED BY: <i>FedEx Ann Bill</i>			<i>GET/Geology st</i>	<i>10-17-07</i>	<i>1200</i>
RELINQUISHED BY:					
RECEIVED BY:					

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

**ERM CONTACT PERSON**

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

**LABORATORY: TestAmerica-St. Louis**  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #:

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Date: 10-16-07

[illegible]

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>4</sup> Analyze at TA-Burlington

## Analyze at TA-Sacramento

2. Analyze at TA-Richland

### 3 Analyze at TA-Irvine

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_  
Print Name: \_\_\_\_\_

RELINQUISHED BY:	<i>Richard Good Cooke</i>	PRINT NAME
RECEIVED BY:	<i>Richard Cooke</i>	PRINT NAME

Company Name/Title:

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

**RELINQUISHED BY:**

RECEIVED BY:

**For Lab Use Only: Sample Condition Upon Receipt:**

**ORIGINAL:** Send with sample (sign only in blue or black ink)

**COPIES: Retained by Sampler, Sent to Office**

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cook*

Date: 10-16-07

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT  
PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container						Impres	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	EDA
DBSA 10-Q-20	10-16-07	1330							X						
DBSA 10-Q-20-FD	10-16-07	1330							X						
DBSA 10-Q-30	10-16-07	1350							X						
DBSA 10-Q-40	10-16-07	1405							X						
DBSA 10-Q-50	10-16-07	1430							X						
DBSA 10-Q-50-FD	10-16-07	1430							X						
DBSA 10-Q-50-10-16-07	10-16-07	1430							X						
DBSA 10-Q-60	10-16-07	1445							X						
DBSA 10-Q-70	10-16-07	1505							X						
DBSA 10-Q-80	10-16-07	1530							X						

Hex Chrome 7196

Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

RELINQUISHED BY: *Richard Cook* Signature: *Richard Cook* Print Name: *Richard Cook*  
RECEIVED BY: *Richard Cook* Company Name/Title: *GES / Geology* Date: *10-16-07* Time: *15:30*

RELINQUISHED BY:  
RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

Date: 10-16-07

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT  
PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container				
			Unpres	H2SO4	HNO3	HCl	NaOH
DBSA 10-Q-90	10-16-07	1555	X				
DBSA 10-Q-100	10-16-07	1620	X				
DBSA 10-Q-110	10-16-07	1650	X				
DBSA 10-Q-120	10-16-07	1745	X				
DI							

Hex Chrome 7196

X Hold  
X Hold  
X Hold  
X Hold

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

RELINQUISHED BY: *Richard Cooke* Signature:

RECEIVED BY:

*Richard Cooke* Print Name:

Date:

Company Name/Title: *CBP/Geology*

Time:

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

Date: 10-16-07

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT  
PROJECT NUMBER:

### Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc/ NaOH EDA

SAMPLE ID

*Rinsate 7*

DATE

*10-16-07*

TIME

*10:30*

Hex Chrome 7196

*X*

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

Signature:

*Richard Cooke*

Print Name:

*Richard Cooke*

Date:

*10-16-07*

Company Name/Title:

*TestAmerica*

Time:

*12:34*

RELINQUISHED BY:

*Richard Cooke*

RECEIVED BY:

*Richard Cooke*

RELINQUISHED BY:

*Richard Cooke*

RECEIVED BY:

*Richard Cooke*

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

**ERM CONTACT PERSON**

Address: 2525 Natomas Park Drive, Suite 350

Phone #: (916) 924-9378

Contact Person: Nicholas Marz

Colton, CA 92324

Phone: (949) 261-1022

SAMPLER(S) PRINTED NAME AND SIGNATURE

Richard Cooke / Richard Cooke

96

PROJECT NUMBER:

PROJECT NUMBER:	SAMPLE ID	DATE	TIME	Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	EDA
	DBSA 10-Q-130	10-17-07	0725	X						
	DBSA 10-Q-140	10-17-07	0820	X						
	DBSA 10-Q-150	10-17-07	0915	X						
	DBSA 10-Q-160	10-17-07	0930	X						

Container

Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

RELINQUISHED BY: Richard Combs Signature: \_\_\_\_\_  
Print Name: \_\_\_\_\_ Company Name/Title: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

RECEIVED BY:	Richard Coe	Company Number:	GES/Genlog 15	Date:	10/17	Time:	13:18
--------------	-------------	-----------------	---------------	-------	-------	-------	-------

RELINQUISHED BY:	35004521N	LV-604	1917	13:18
------------------	-----------	--------	------	-------

[illegible]

**For Lab Use Only: Sample Condition Upon Receipt:**

**ORIGINAL:** Send with sample (sign only in blue or black ink)

**COPIES: Retained by Sampler, Sent to Office**

## ERM CONTACT PERSON

**LABORATORY: TestAmerica-St. Louis**  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Date: 10-17-07

PROJECT NUMBER:	SAMPLE ID	DATE	TIME	Container					
				H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	EDA
	DBSA 10-Q-130	10-17-07	0725	X					
	DBSA 10-Q-140	10-17-07	0820	X					
	DBSA 10-Q-150	10-17-07	0915	X					
	DBSA 10-Q-160	10-17-07	0930	X					

**Comments/Instructions:**

### 3 Analyze at TA-Irvine

RELINQUISHED BY: <i>Wendell</i>	Company Name/Title:	Date:
FULL NAME:	Company Name/Title:	Date:

For Lab Use Only: Sample Condition Upon Receipt:

COPIES: Retained by Sampler, Sent to Office

**ERM CONTACT PERSON**

**ERM CHAIN OF CUSTODY RECORD**

Address: 2525 Natomas Park Dr  
Sacramento, CA 95833  
Phone #: (916) 924-9378

FED EX #:

SAMPLER(S) PRINTED NAME AND SIGNATURE \_\_\_\_\_

[illegible]

NAME	DATE	TIME	ANALYSIS REQUEST
R: chand			
Cooler			
Greenland			

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT  
PROJECT NUMBER:

[illegible][illegible]

Please refer to Table 2 (emailed on 7/16/07)

4 Analyze at TA-Burlington

## Analyze at (A-Sacramento

Analyze at TA-Richland

Analyze at TA-Irvine

Signature: \_\_\_\_\_

DELINQUISHED BY: <u>Karl and Corle</u>	Print Name:
RECEIVED BY: <u>FedEx Air Bill</u>	Company Name/Title:
	Date: <u>10/10/10</u>
	Time: <u>10:10</u>

[illegible][illegible][illegible]

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office



# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #:

Date: 10-7-07

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc NaOH EDA

SAMPLE ID

DATE

TIME

METALS\* + Hex Chrome<sup>3</sup>

RADIONUCLIDES<sup>2</sup>

PERCHLORATE<sup>1</sup>

VOCs\*

IONS\*

Gen. Chem\*

PHYS. PARAMETERS<sup>4</sup>

GRAIN SIZE

PERCENT MOISTURE<sup>5</sup>

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>1</sup> Analyze at TA-Sacramento

<sup>2</sup> Analyze at TA-Richland

<sup>3</sup> Analyze at TA-Irvine

<sup>4</sup> Analyze at TA-Burlington  
<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

Signature:

Print Name:

Company Name/Title:

Date:

Time:

RELINQUISHED BY:

*Richard Cooke*

*Richard Cooke*

*Geos/Geologist*

RECEIVED BY:

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

Date: 10-7-07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

Richard Cooley / Richard Cooley  
Phil Brinkhoff / Phil Brinkhoff

## ANALYSIS REQUEST

## PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

### PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container						Hex Chrome 7196
			Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc	
DBSA 11-G-20	10-7-07	1620	X						X
DBSA 11-G-30		1640	X						X
DBSA 11-G-40		1700	X						X
DBSA 11-G-40 (FI)		1700	X						X
DBSA 11-G-50		1720	X						X
DBSA 11-G-60		1745	X						X

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

48 hours hold

RELINQUISHED BY: Richard Cooley

Print Name:

Company Name/Title:

Date:

RECEIVED BY: S. Barajas

Company Name/Title:

Date:

RELINQUISHED BY:

Date:

RECEIVED BY:

Date:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

## ERM CONTACT PERSON

**LABORATORY: TestAmerica-St. Louis**  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #: 859390550134

SAMPLER(S) PRINTED NAME AND SIGNATURE

Richard Cooke / Richard Cooke

Date: 10-8-07

[illegible]

\* Please refer to Table 2 (emailed on 7/16/07)

- 1 Analyze at TA-Sacramento
- 2 Analyze at TA-Richland
- 3 Analyze at TA-Irvine

<sup>4</sup> Analyze at TA-Burlington

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

Signature: \_\_\_\_\_

RECEIVED BY: <i>Richard Cooke</i>	PRINT NAME:	DATE:	TIME:
RELINQUISHED BY: <i>Richard Cooke</i>	PRINT NAME:	DATE:	TIME:

RECEIVED BY: JEELEX AIR-B. 11 85939055 0134  
JEELEX AIR-B. 11 85939055 0134  
GIES / GEOL 9915 F  
10-

RELINQUISHED BY: \_\_\_\_\_

RECEIVED BY:

**For Lab Use Only: Sample Condition Upon Receipt:**

ORIGINAL: Send with sample (sign only in blue or black ink)

**COPIES: Retained by Sampler, Sent to Office**

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

Date: 10-8-07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

## ANALYSIS REQUEST

### PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

#### PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container						Hex Chrome 7196										
			Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	EDA										
DBSA 11-Q-70	10-8-07	0705	X							X									
DBSA 11-Q-80	10-8-07	0800	X							X									
DBSA 11-Q-90	10-8-07	0910	X							X									
DBSA 11-Q-100	10-8-07	0950	X							X									
DBSA 11-Q-110	10-8-07	1050	X							X									
DBSA 11-Q-120	10-8-07	1145	X							X									
DBSA 11-Q-120-FD	10-8-07	1145	X							X									
DBSA 11-Q-120-M5/M6	10-8-07	1145	X							X									
DBSA 11-Q-130	10-8-07	1315	X							X									
DBSA 11-Q-140	10-8-07	1410	X							X									

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

## Signature:

RELINQUISHED BY: *Richard Cooke*

## Print Name:

*Richard Cooke*

## Company Name/Title:

*TestAmerica-Irvine*

## Date:

*10-8-07*

## RECEIVED BY:

RELINQUISHED BY:

RECEIVED BY:

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office



# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

Date: 10-7-07

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

Container

EDTA

NaOH

ZnAc

HCl

HNO3

H2SO4

Cmpres

SAMPLE ID

DATE

TIME

Hex Chrome 7196

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

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X

X

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

Signature:

Print Name:

Date:

Time:

Company Name/Title:

RELINQUISHED BY: *Richard Cooke*

RECEIVED BY:

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #: 859390550134

Date: 10-8-07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

## ANALYSIS REQUEST

### PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

### PROJECT NUMBER:

### Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc NaOH EDA

SAMPLE ID DATE TIME

10-8-07 0700

DBSA 11-Q-70 10-8-07 0705

DBSA 11-Q-80 10-8-07 0800

DBSA 11-Q-90 10-8-07 0900

DBSA 11-Q-100 10-8-07 0950

DBSA 11-Q-110 10-8-07 1050

DBSA 11-Q-120 10-8-07 1145

DBSA 11-Q-120-F1 10-8-07 1145

DBSA 11-Q-120-M345D 10-8-07 1145

DBSA 11-Q-130 10-8-07 1305

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>1</sup> Analyze at TA-Sacramento

<sup>2</sup> Analyze at TA-Richland

<sup>3</sup> Analyze at TA-Irvine

<sup>4</sup> Analyze at TA-Burlington

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

## Signature:

## Print Name:

## Date:

## Time:

RELINQUISHED BY: *Richard Cooke*

RECEIVED BY: *Felix Arvizu 85970550134*

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #: 857767992521

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

Date: 10-18-07

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT		ANALYSIS REQUEST																						
PROJECT NUMBER:	SAMPLE ID	DATE	TIME	Container					EDTA	ZnAc/NaOH	HCl	HNO3	H2SO4	Unpres	METALS* + Hex Chrome <sup>3</sup>	RADIONUCLIDES <sup>2</sup>	PERCHLORATE <sup>1</sup>	VOCs*	IONS*	Gen. Chem*	PHYS. PARAMETERS <sup>4</sup>	GRAIN SIZE	PERCENT MOISTURE <sup>5</sup>	
	Trap Blank	10-18-07	1500																					
	DBSA 13-Q-5	10-18-07	1505																					
	DBSA 13-Q-10	10-18-07	1510																					
	DBSA 13-Q-20	10-18-07	1525																					
	DBSA 13-Q-20-P	10-18-07	1525																					
	DBSA 13-Q-30	10-18-07	1540																					
	DBSA 13-Q-40	10-18-07	1600																					
	DBSA 13-Q-50	10-18-07	1625																					
	DBSA 13-Q-50-F	10-18-07	1625																					
	DBSA 13-Q-50-M	10-18-07	1625																					

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>1</sup> Analyze at TA-Sacramento

<sup>2</sup> Analyze at TA-Richland

<sup>3</sup> Analyze at TA-Irvine

<sup>4</sup> Analyze at TA-Burlington

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

RELINQUISHED BY: <i>Richard Cooke</i>	Signature:	Print Name:
RECEIVED BY: <i>FedEx Air Br 11 857767992521</i>	<i>Richard Cooke</i>	Company Name/Title: <i>GES/Geologist</i>
RELINQUISHED BY:		Date: <i>10-19-07 1700</i>
RECEIVED BY:		
For Lab Use Only: Sample Condition Upon Receipt:		

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office



# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Coston, CA 92324  
Phone: (949) 261-1022

FED EX #:

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

Date: 10-18-07

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container					
			Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH
DBSA-13-Q-20	10-18-07	1525	X					
DBSA-13-Q-20-FD	10-18-07	1525	X					
DBSA-13-Q-30	10-18-07	1540	X					
DBSA-13-Q-40	10-18-07	1600	X					
DBSA-13-Q-50	10-18-07	1625	X					
DBSA-13-Q-50-FD	10-18-07	1625	X					
DBSA-13-Q-50-MS/MS	10-18-07	1625	X					
DBSA-13-Q-60	10-18-07	1645	X					
DBSA-13-Q-70	10-18-07	1710	X					
DBSA-13-Q-80	10-18-07	1740	X					

Hex Chrome 7196

HeLD  
HeLD  
HeLD

Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

Signature:

Print Name:

RELINQUISHED BY: <i>Richard Cooke</i>	Company Name/Title: <i>GES/Geologist</i>	Date: <i>10/19/07</i>	Time: <i>0615</i>
RECEIVED BY: <i>Marty Mehler</i>	<i>GES/Geologist</i>	<i>10/19/07</i>	<i>0615</i>
RELINQUISHED BY: <i>Marty Mehler</i>	<i>GES/Geologist</i>	<i>10/19/07</i>	<i>0840</i>
RECEIVED BY: <i>Marty Mehler</i>	<i>GES/Geologist</i>	<i>10/19/07</i>	<i>0840</i>

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard and Cooke*

Date: 10-19-07

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT  
PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container						Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc	NaOH	EDA
DBSA 13-Q-80	10-19-07	0705							X							
DBSA 13-Q-100	10-19-07	0750							X							
DBSA 13-Q-110	10-19-07	0835							X							
DBSA 13-Q-120	10-19-07	0925							X							
DBSA 13-Q-120-F1	10-19-07	0925							X							
DBSA 13-Q-130	10-19-07	0950							X							
DBSA 13-Q-140	10-19-07	1035							X							
DBSA 13-Q-150	10-19-07	1100							X							
DBSA 13-Q-160	10-19-07	1130							X							

Hex Chrome 7196

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

RELINQUISHED BY: *Richard Cooke* Signature:

RECEIVED BY: *Richard Cooke* Print Name:

Company Name/Title: *Richard Cooke*

Date: 10-22-07 Time: 8:37

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

**LABORATORY: TestAmerica, CA 10112**

Contact Person: Jerry Everett  
 Address: 13715 Rider Trail North  
 Earth City, Missouri 63045  
 Phone: (314) 298-8566

FEDEX #: 85 7767992521

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Richard Cooke / Richard Cooke

Date: 10-18-07

[illegible]

**Comments/Instructions:**

\* Please refer to Table 2 (emailed on 7/16/07)

### 1 Analyze at TA-Sacramento

<sup>2</sup> Analyze at TA-Richland

### 3 Analyze at TA-Irvine

<sup>4</sup> Analyze at TA-Burlington

5 Please report results in dry weight, therefore all soil will require % moisture testing.

RELINQUISHED BY: Richard L. Carter Signature: \_\_\_\_\_

RELINQUISHED BY: *Wentland Cooke*  
RECEIVED BY: FedEx Air Bill 857767092524

RELINQUISHED BY:

RECEIVED BY:

**For Lab Use Only: Sample Condition Upon Receipt:**

**ORIGINAL:** Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

**ERM CONTACT PERSON**

**LABORATORY: TestAmerica-St. Louis**  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Richard Cooke / Richard Cooke

Date: 10-19-07

**Comments/Instructions:**

<sup>4</sup> Analyze at TA-Burlington

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

### Analyze at TA-Irvine

**Signature:**

Print Name: \_\_\_\_\_

**Company Name/Title:**

Time:

RECEIVED BY:

Richard Coole

**RELINQUISHED BY:**

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

**ORIGINAL:** Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #: 859 390550259

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

Date: 10-9-07

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT  
PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container				
			Unpres	H2SO4	HNO3	HCl	NaOH
Twice Blank	10-9-07	0950				X	
DBSA 14-Q-5		1045	X				
DBSA 14-Q-10		1055	X				
DBSA 14-Q-20		1115	X				
DBSA 14-Q-20-F1		1115	X				
DBSA 14-Q-30		1140	X				
DBSA 14-Q-40		1205	X				
DBSA 14-Q-50		1230	X				
DBSA 14-Q-90-F1		1230	X				
DBSA 14-Q-50-123/14511		1230	X				

Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

1 Analyze at TA-Sacramento

2 Analyze at TA-Richland

3 Analyze at TA-Irvine

4 Analyze at TA-Burlington

5 Please report results in dry weight, therefore all soil will require % moisture testing.

RELINQUISHED BY: *Richard Cooke* Signature: *Richard Cooke* Print Name:

RECEIVED BY: *Fedex Air Bill 859 390550259*

Date:

Company Name/Title: *DES/Geologist*

Date: *10-10-07*

Time: *1700*

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

**ERM CONTACT PERSON**

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

## LABORATORY: TestAmerica-St Louis

Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #: 859790530259

Date: 10-9-07

SAMPLER(S) PRINTED NAME AND SIGNATURE

Richard Cooke / Richard Cooke

# ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT									
PROJECT NUMBER:									
SAMPLE ID	DATE	TIME	Container						
			Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	EDTA
DBSA 14-Q-60	10-9-07	1740	X						
DBSA 14-Q-70	10-9-07	1705	X						
DBSA 14-Q-80	10-9-07	1730	X						
DBSA 14-Q-90	10-9-07	1500	X						
DBSA 14-Q-100	10-9-07	1530	X						
DBSA 14-Q-110	10-9-07	1600	X						
DBSA 14-Q-120	10-9-07	1635	X						
DBSA 14-Q-130	10-9-07	1715	X						
DBSA 14-Q-140	10-9-07	1755	X						

METALS* + Hex Chrome <sup>3a</sup>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
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## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>4</sup> Analyze at TA-Burlington

## Analyze at TA-Sacramento

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

2. Analyze at TA-Richland

### Analyze at TA-Irvine

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

**Company Name/Title:**

Time:

RECEIVED BY: Fedex Air Bill 859390530259	Richard Lee	GIS/Geologist	10-400 1700
--	-------------	---------------	-------------

RELINQUISHED BY:

RECEIVED BY:		

**For Lab Use Only: Sample Condition Upon Receipt:**

**ORIGINAL:** Send with sample (sign only in blue or black ink)

**COPIES: Retained by Sampler, Sent to Office**

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooley*

ANALYSIS REQUEST

Date: 10-9-07

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT  
PROJECT NUMBER:

PROJECT NUMBER:			Container							
SAMPLE ID	DATE	TIME	Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	EDA	
DBSA 14-Q-20	10-9-07	1115	X							
DBSA 14-Q-20-FD	10-9-07	1115	X							
DBSA 14-Q-30	10-9-07	1140	X							
DBSA 14-Q-40	10-9-07	1205	X							
DBSA 14-Q-50	10-9-07	1230	X							
DBSA 14-Q-50-FD	10-9-07	1230	X							
DBSA 14-Q-90-M7(M7)	10-9-07	1230	X							
DBSA 14-Q-60	10-9-07	1340	X							
DBSA 14-Q-70	10-9-07	1405	X							
DBSA 14-Q-80	10-9-07	1430	X							

Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

RELINQUISHED BY: *Richard Cooley* Signature: *Richard Cooley* Print Name: *Richard Cooley*

RECEIVED BY: *Richard Cooley* Company Name/Title: *TestAmerica-Irvine* Date: *10-9-07* Time: *11:15*

RELINQUISHED BY: *Richard Cooley* Company Name/Title: *TestAmerica-Irvine* Date: *10-9-07* Time: *11:15*

RECEIVED BY: *Richard Cooley* Company Name/Title: *TestAmerica-Irvine* Date: *10-9-07* Time: *11:15*

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

**ERM CONTACT PERSON**

**LABORATORY: TestAmerica-Irvine**  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

Phone: (949) 261-1022

Date: 10-2-07

ANALYSIS REQUEST

[illegible]

\* Please refer to Table 2 (emailed on 7/16/07)

Company Name/Title: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

**RELINQUISHED**

For Lab Use Only: S

**COPIES: Retained by Sampler, Sent to Office**



# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooley / Richard Cooley*

Date: 10-10-07

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT  
PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container					
			Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc
DBSA 14-0-150	10-10-07	0800	X					
DBSA 14-0-160	10-10-07	0820	X					
DBSA 14-0-160FD	10-10-07	0820	X					

Hex Chrome 7196

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

RELINQUISHED BY: *Richard Cooley* Signature:

Print Name:

*Richard Cooley*

RECEIVED BY: *SARAH*

Company Name/Title:

*GBS/Geologyist*

Date:

*10-10-07*

Time:

*13:36*

RELINQUISHED BY:

*VA-LWT-CM*

*10/10*

*13:36*

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

**ERM CONTACT PERSON**

**LABORATORY: TestAmerica-St. Louis**  
 Contact Person: Jerry Everett  
 Address: 13715 Rider Trail North  
 Earth City, Missouri 63045  
 Phone: (314) 298-8566

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Richard  
Coxie/Richard Coxie

Date: 10-10-07

[illegible]

**Comments/Instructions:**

\* Please refer to Table 2 (emailed on 7/16/07)

\* Analyze at TA-Burlington

## Analyze at TA-Sacramento

2. Analyze at TA-Richland

Analyze at TA-Irvine

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

FILLING  
Richard Croft

**Company Name/Title:**

10-10-07	1700
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**RELINQUISHED BY:**

RECEIVED BY:

**For Lab Use Only: Sample Condition Upon Receipt:**

**ORIGINAL:** Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

## ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

**LABORATORY: TestAmerica-Irvine**

Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Date: 10-10-87

Richard Cooke/ Dick and Corde

## ANALYSIS REQUEST

[illegible]

**Comments/Instructions:**

\* Please refer to Table 2 (emailed on 7/16/07)

Signature: \_\_\_\_\_

Print Name:

RELINQUISHED BY: David and Corrie

Print Name: Richard Ciolek

Company Name/Title:

Time:

RECEIVED BY:

10-10-07	10-10-07
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**RELINQUISHED BY:**

RECEIVED BY:

**For Lab Use Only: Sample Condition Upon Receipt:**

**ORIGINAL:** Send with sample (sign only in blue or black ink)

**COPIES: Retained by Sampler, Sent to Office**

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

Date: 10-9-07

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT  
PROJECT NUMBER:

PROJECT NUMBER:			SAMPLE ID	DATE	TIME	Container														
						Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	EDA								
			DBSA 14-Q-90	10-9-07	1500	X														
			DBSA 14-Q-100	10-9-07	1530	X														
			DBSA 14-Q-110	10-9-07	1600	X														
			DBSA 14-Q-120	10-9-07	1635	X														
			DBSA 14-Q-130	10-9-07	1715	X														
			DBSA 14-Q-140	10-9-07	1755	X														

Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

RELINQUISHED BY: *Richard Cooke* Signature: *Richard Cooke* Print Name: *Richard Cooke*

RECEIVED BY: *Winn* Date: 10/10/07

RELINQUISHED BY: *Winn* Date: 10/10/07

RECEIVED BY: *Winn* Date: 10/10/07

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Coston, CA 92324  
Phone: (949) 261-1022

FED EX #:

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooley / Richard Cooley*

Date: 10-9-07

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT  
PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container					
			Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH
DBSA 14-Q-20	10-9-07	1115	X					
DBSA 14-Q-20-FD	10-9-07	1115	X					
DBSA 14-Q-30	10-9-07	1140	X					
DBSA 14-Q-40	10-9-07	1205	X					
DBSA 14-Q-50	10-9-07	1230	X					
DBSA 14-Q-50-FD	10-9-07	1230	X					
DBSA 14-Q-90-M3/MSD	10-9-07	1230	X					
DBSA 14-Q-60	10-9-07	1340	X					
DBSA 14-Q-70	10-9-07	1405	X					
DBSA 14-Q-80	10-9-07	1430	X					

Hex Chrome 7196

Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

RELINQUISHED BY: *Richard Cooley* Signature:

RECEIVED BY: *Richard Cooley* Print Name:

Date: 10/16/07

Company Name/Title: *TestAmerica*

Time: 10:10:07

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

Date: 10-9-07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

## ANALYSIS REQUEST

## PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

## PROJECT NUMBER:

## Container

SAMPLE ID	DATE	TIME	Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc	EDA
DBSA 14-Q-90	10-9-07	1500	X						
DBSA 14-Q-100	10-9-07	1530	X						
DBSA 14-Q-110	10-9-07	1600	X						
DBSA 14-Q-120	10-9-07	1635	X						
DBSA 14-Q-130	10-9-07	1715	X						
DBSA 14-Q-140	10-9-07	1755	X						

Hex Chrome 7196

10/9/07  
17:15  
17:55  
10/9/07

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

RELINQUISHED BY: *Richard Cooke* Signature: *Richard Cooke* Print Name: *Richard Cooke*

RECEIVED BY: *Richard Cooke* Date: 10/9/07

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Site A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

Date: 10-6-07

SAMPLER(S) PRINTED NAME AND SIGNATURE

Richard Cooke / Richard Cooke

ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

SAMPLE ID DATE TIME

10-6-07 1810

Unpres

H2SO4

HNO3

HCl

NaOH

ZnAc

NaOH

EDA

Hex Chrome 7196

X

Hold

Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

48 hours Hold

Signature:

Print Name:

Company Name/Title:

Date:

Time:

RELINQUISHED BY: Richard Cooke

RECEIVED BY: SALMON

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #:

Date: 6-6-07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

Richard Cooke / Richard Cooke  
Monty Melhorn / Monty Melhorn

## ANALYSIS REQUEST

### PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

#### PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container					Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc	NaOH	EDA
Full Blank	6-6-07	1000													
DBSA-15-Q-5		1035						X							
DBSA-15-Q-10		1040						X							
DBSA-15-Q-20		1125						X							
DBSA-15-Q-20-F1		1125						X							
DBSA-15-Q-30		1200						X							
DBSA-15-Q-40		1240						X							
DBSA-15-Q-50		1420						X							
DBSA-15-Q-60		1520						X							
DBSA-15-Q-70		1600						X							

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

1 Analyze at TA-Sacramento

2 Analyze at TA-Richland

3 Analyze at TA-Irvine

4 Analyze at TA-Burlington

5 Please report results in dry weight, therefore all soil will require % moisture testing.

Signature:

Print Name:

Company Name/Title:

Date:

RELINQUISHED BY: Richard Cooke

RECEIVED BY: Richard Cooke

Signature: Richard Cooke

Company Name/Title: CES/Geologist

Date: 6-6-07

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office



# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooley*

Date: 10-6-07

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT  
PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container					
			Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc
DBSA 15-Q-20	10-6-07	1125	X					
DBSA 15-Q-20 F1	10-6-07	1125	X					
DBSA 15-Q-30	10-6-07	1200	X					
DBSA 15-Q-40	10-6-07	1240	X					
DBSA 15-Q-50	10-6-07	1420	X					
DBSA 15-Q-60	10-6-07	1520	X					
DBSA 15-Q-70	10-6-07	1600	X					
DBSA 15-Q-80	10-6-07	1635	X					
DBSA 15-Q-90	10-6-07	1700	X					
DBSA 15-Q-100	10-6-07	1735	X					

Hex Chrome 7196

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

48 Lumen hold

RELINQUISHED BY: *Richard Cooley* Signature:

Print Name:

Company Name/Title:

Date:

Time:

RECEIVED BY: *Nicholas Marz*

RECEIVED BY: *DBSA*

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

## ERM CHAIN OF CUSTODY RECORD

**ERM CONTACT PERSON**

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

## LABORATORY: TestAmerica-St. Louis

Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #

Date: 10-6-07

[illegible]

**Comments/Instructions:**

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>4</sup> Analyze at TA-Burlington

<sup>1</sup> Analyze at TA-Sacramento

<sup>2</sup> Analyze at TA-Richland

### 3 Analyze at TA-Irvine

**Signature:**

Print Name: \_\_\_\_\_

**Company Name/Title:**

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

BEING FURNISHED BY:

Signature: \_\_\_\_\_

Print Name D. J. D. J.

Company Name/Ti
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Date: \_\_\_\_\_ Time: \_\_\_\_\_

RECEIVED BY: *Feb 11*

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RECEIVED BY: \_\_\_\_\_  
 For Lab Use Only: Sample Condition Upon Receipt: \_\_\_\_\_

**ORIGINAL:** Send with sample (sign only in blue or black ink)

**COPIES: Retained by Sampler, Sent to Office**

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378 **MC**

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Coston, CA 92324  
Phone: (949) 261-1022

FED EX #: ~~554396550732~~

Date: 10-7-07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooley / Phil Binkernoff*  
*Richard Cooley*  
*Phil Binkernoff*

## ANALYSIS REQUEST

## PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

### PROJECT NUMBER:

### Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc NaOH EDA

SAMPLE ID	DATE	TIME	Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc	NaOH	EDA
DBSA 15-Q-120	10-7-07	0650	X							
DBSA 15-Q-120-F1		0650	X							
DBSA 15-Q-120-145		0650	X							
DBSA 15-Q-130		0730	X							
DBSA 15-Q-140		0840	X							
DBSA 15-Q-150		0945	X							
DBSA 15-Q-160		1005	X							

Hex Chrome 7196

*Hold*  
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## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

*48 hours hold*

## Signature:

## Print Name:

## Date:

## Company Name/Title:

RELINQUISHED BY: *Richard Cooley* Signature: *Richard Cooley* Date: *10/8/07*  
RECEIVED BY: *Felix Alu Bill* Signature: *SARASSAN* Date: *10/8/07*

RELINQUISHED BY: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
RECEIVED BY: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

**ERM CONTACT PERSON**

**LABORATORY: TestAmerica-St. Louis**  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

Date: 10-4-07

ANALYSIS REQUEST

[illegible]

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

Time:

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# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Site A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

Date: 10-5-07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

Richard Cooke / Richard Cooke

## ANALYSIS REQUEST

### PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

### PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container									
			Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	EDA			
DBSA 17-Q-50	10-5-07	0745	X									
DBSA 17-Q-60	10-5-07	0815	X									
DBSA 17-Q-70	10-5-07	0815	X									
DBSA 17-Q-80	10-5-07	0930	X									
DBSA 17-Q-80-DUP	10-5-07	0930	X									
DBSA 17-Q-80-MID	10-5-07	0930	X									
DBSA 17-Q-90	10-5-07	1000	X									
DBSA 17-Q-100	10-5-07	1030	X									
DBSA 17-Q-110	10-5-07	1140	X									
DBSA 17-Q-120	10-5-07	1210	X									

### Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

RELINQUISHED BY: Richard Cooke

RECEIVED BY:

Print Name:

Richard Cooke

Company Name/Title:

TES/Consultant

Date:

Time:

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

Date: 10-5-07

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke* *Richard Cooke*

ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc NaOH EDA

SAMPLE ID

DATE

TIME

17-T-130 10-5-07 1420

17-T-140 1515

17-T-150 1530

Hex Chrome 7196

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

Signature:

Print Name:

Company Name/Title:

Date:

Time:

RELINQUISHED BY:

RECEIVED BY:

*Richard Cooke*

*Richard Cooke*

*TestAmerica-Irvine*

*10-5-07*

RELINQUISHED BY:

RECEIVED BY:

*Richard Cooke*

*Richard Cooke*

*TestAmerica-Irvine*

*10-5-07*

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #:

Date: 10-5-07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

Richard Cooke / Richard Cooke

## ANALYSIS REQUEST

### PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container					Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc	NaOH	EDA
Tripe Blank	10-5-07	0600													
DBSA 17-Q-50	10-5-07	0745													
DBSA 17-Q-60	10-5-07	0815													
DBSA 17-Q-70	10-5-07	0845													
DBSA 17-Q-80	10-5-07	0930													
DBSA 17-Q-80-VUP	10-5-07	0930													
DBSA 17-Q-80-N7/M7	10-5-07	0930													
DBSA 17-Q-90	10-5-07	1000													
DBSA 17-Q-100	10-5-07	1030													
DBSA 17-Q-110	10-5-07	1140													

## Comments/Instructions:

- \* Please refer to Table 2 (emailed on 7/16/07)
- <sup>1</sup> Analyze at TA-Sacramento
- <sup>2</sup> Analyze at TA-Richland
- <sup>3</sup> Analyze at TA-Irvine
- <sup>4</sup> Analyze at TA-Burlington
- <sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

RELINQUISHED BY: Richard Cooke

Signature:

Company Name/Title:

Date:

RECEIVED BY: GES/Geology 127

Date: 10-5-07

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office



**ERM CONTACT PERSON**

**LABORATORY: TestAmerica-St. Louis**  
**Contact Person: Jerry Everett**  
**Address: 13715 Rider Trail North**  
**Earth City, Missouri 63045**  
**Phone: (314) 298-8566**

Date: 10-5-07

# ANALYSIS REQUEST

Richard Cooke / Richard Cooke

[illegible]

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

### 3 Analyze at TA-Irvine

Time:

Company Name/Title:	Date:
GES / Generalist	10-5-20

RECEIVED BY:

**ORIGINAL: Send with sample (sign only in blue or black ink)**

**COPIES: Retained by Sampler, Sent to Office**

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

Laboratory: Alpha Analytical  
Contact Person: Patricia Edrosa  
Address: 255 Glendale, Suite 21  
Sparks, NV 89431  
Phone: 1-800-283-1183

FED EX #:

Date: 10-5-07

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Corle / Richard Corle*

ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

Container  
Unpres H2SO4 HNO3 HCl NaOH ZnAc/ NaOH EDA

SAMPLE ID

DATE

TIME

Unpres H2SO4 HNO3 HCl NaOH ZnAc/ NaOH EDA

DBSA 17-GW 10-5-07 1430

Organic Acids

Comments/Instructions:

\* Please refer to Table 2 (emailed on 8/20/07)

Signature:

Print Name:

RELINQUISHED BY: *Richard Corle* Company Name/Title: *Alpha Analytical* Date: *10-5-07* Time: *10:09*

RECEIVED BY: *J. Smith* Date: *10-8-07* Time: *10:09*

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #:

Date: 10-5-07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

## ANALYSIS REQUEST

### PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

### PROJECT NUMBER:

### Container

SAMPLE ID	DATE	TIME	Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	EDA
<i>Twice Blank</i>	<i>10-5-07</i>	<i>0600</i>				<input checked="" type="checkbox"/>			
<i>DBSA 17-Q-50</i>	<i>10-5-07</i>	<i>0745</i>	<input checked="" type="checkbox"/>						
<i>DBSA 17-Q-60</i>	<i>10-5-07</i>	<i>0815</i>	<input checked="" type="checkbox"/>						
<i>DBSA 17-Q-70</i>	<i>10-5-07</i>	<i>0845</i>	<input checked="" type="checkbox"/>						
<i>DBSA 17-Q-80</i>	<i>10-5-07</i>	<i>0930</i>	<input checked="" type="checkbox"/>						
<i>DBSA 17-Q-80-PUP</i>	<i>10-5-07</i>	<i>0930</i>	<input checked="" type="checkbox"/>						
<i>DBSA 17-Q-80-M5/WH</i>	<i>10-5-07</i>	<i>0930</i>	<input checked="" type="checkbox"/>						
<i>DBSA 17-Q-90</i>	<i>10-5-07</i>	<i>1000</i>	<input checked="" type="checkbox"/>						
<i>DBSA 17-Q-100</i>	<i>10-5-07</i>	<i>1030</i>	<input checked="" type="checkbox"/>						
<i>DBSA 17-Q-110</i>	<i>10-5-07</i>	<i>1140</i>	<input checked="" type="checkbox"/>						

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>1</sup> Analyze at TA-Sacramento

<sup>2</sup> Analyze at TA-Richland

<sup>3</sup> Analyze at TA-Irvine

<sup>4</sup> Analyze at TA-Burlington

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

Signature:

Print Name:

Company Name/Title:

Date:

RELINQUISHED BY: *Richard Cooke* RECEIVED BY: *Richard Cooke* Date: *10-5-07*

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

Date: 05-07

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Carlie*

ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

Container

SAMPLE ID	DATE	TIME	Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc	NaOH	EDA
DBSA 17-T-130	10-5-07	14:20	X							
DBSA 17-T-140	✓	15:15	X							
DBSA 17-T-150	✓	15:30	X							

Hex Chrome 7196

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

*48 brown bld*

RELINQUISHED BY: *Richard Carlie*

Print Name:

Company Name/Title:

Date:

RECEIVED BY: *S. Sainson* 10/8/08

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

Date: 10-5-07

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

Container

SAMPLE ID	DATE	TIME	Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc	EDTA
DBSA 17-A-50	10-5-07	0745	X						
DBSA 17-A-60	10-5-07	0815	X						
DBSA 17-A-70	10-5-07	0845	X						
DBSA 17-A-80	10-5-07	0930	X						
DBSA 17-A-80-0UP	10-5-07	0930	X						
DBSA 17-A-80-0UP (M10)	10-5-07	0930	X						
DBSA 17-A-90	10-5-07	1000	X						
DBSA 17-A-100	10-5-07	1030	X						
DBSA 17-A-110	10-5-07	1140	X						
DBSA 17-A-120	10-5-07	1210	X						

Hex Chrome 7196

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

*48 hours hold*

RELINQUISHED BY: *Richard Cooke* Signature:

Print Name:

Company Name/Title:

Date: Time:

RECEIVED BY: *Salmon* *Richard Cooke* *10/8 10:00*

RELINQUISHED BY: *Salmon* *Richard Cooke* *10/8 10:00*

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

**ERM CONTACT PERSON**

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

**LABORATORY: TestAmerica-Irvine**

Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

Date: 10-25-17

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Richard Corbie / Richard Corbie

# ANALYSIS REQUEST

[illegible]

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

48 new field

Signature:

Print Name: \_\_\_\_\_

Company Name/Title:

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

RELINQUISHED BY: LEONARD

Richard P. ...

4310/5095

COIL 11-2-5-1

RECEIVED BY: C. J. WASSER

100

TA-1V

2016

SECRET

9 boxes?

2

007150

RELINQUISHED BY: \_\_\_\_\_  
 RECEIVED BY: \_\_\_\_\_[illegible]

1000

RECEIVED BY:

**Figure 1**

1

**For Lab Use Only: Sample Condition Upon Receipt:**

**ORIGINAL: Send with sample (sign only in blue or black ink)**

**COPIES: Retained by Sampler. Sent to Office**

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

Date: 10-5-07

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

SAMPLE ID: DBSH 17-661

DATE: 10-5-07

TIME: 1630

Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc NaOH EDA

Hex Chrome 7196

Aldehydes 8315

Aldehydes 8270C

Dichlorobenzil 8270C

Chlonte 300.1

Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

Signature:

Print Name:

Company Name/Title:

Date: 10/5 Time:

RELINQUISHED BY: *Richard Cooke* *Richard Cooke* *TestAmerica-Irvine* *10-5-07* *9:58*

RECEIVED BY: *Samuel Salazar* *Samuel Salazar* *TestAmerica-Irvine* *10/8* *9:58*

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #:

Date: 10-5-07

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

Container

SAMPLE ID

DATE

TIME

Unpres

H2SO4

HNO3

HCl

NaOH

ZnAc

NaOH

EDA

ANALYSIS REQUEST

METALS\* + Hex Chrome<sup>3</sup>

RADIONUCLIDES<sup>2</sup>

PERCHLORATE<sup>1</sup>

VOCs\*

IONS\*

Gen. Chem\*

PHYS. PARAMETERS<sup>4</sup>

GRAIN SIZE

PERCENT MOISTURE<sup>5</sup>

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>1</sup> Analyze at TA-Sacramento

<sup>2</sup> Analyze at TA-Richland

<sup>3</sup> Analyze at TA-Irvine

<sup>4</sup> Analyze at TA-Burlington

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

RELINQUISHED BY: *Richard Cooke* Signature:

RECEIVED BY:

Print Name:

Company Name/Title:

Date:

*Richard Cooke* *GES/Geology* *10-5-07*

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office



# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378 *RC*

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX # *859390556373*

Date: *10-3-07*

## SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooley / Richard Cooley*

## ANALYSIS REQUEST

### PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

### PROJECT NUMBER:

### Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc EDA

TIME DATE

1420 10-3-07

1500

1600

1630

1700

1735

1800

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

## Signature:

## Print Name:

## Company Name/Title:

## Date:

## Time:

RELINQUISHED BY: *Richard Cooley*

RECEIVED BY: *Ch...*

*Richard Cooley*

*Partner*

*GES/Cooleyist*

*SA*

*10/4/07*

*12/4/07*

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #:

Date: 10-4-07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

Richard Cooke / Richard Cooke

## ANALYSIS REQUEST

### PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

#### PROJECT NUMBER:

#### Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc/ NaOH EDA

#### SAMPLE ID

#### DATE

#### TIME

OB5A 20-T-90 10-4-07 0915

OB5A 20-T-900DP 10-4-07 0915

OB5A 20-T-100 10-4-07 0930

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>1</sup> Analyze at TA-Sacramento

<sup>2</sup> Analyze at TA-Richland

<sup>3</sup> Analyze at TA-Irvine

<sup>4</sup> Analyze at TA-Burlington  
<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

RELINQUISHED BY: Richard Cooke

SIGNATURE: Richard Cooke

PRINT NAME: Richard Cooke

COMPANY NAME/TITLE: GIES/Geologist

DATE: 10-4-07

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

Date: 10-4-07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cordes / Richard Cordes*

## ANALYSIS REQUEST

### PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

#### PROJECT NUMBER:

#### Container

SAMPLE ID	DATE	TIME	Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc	EDA
DBSA 20-T-90	10-4-07	0915	X						
DBSA 20-T-90#DUP		0915	X						
DBSA 20-T-100	✓	0930	X						

Hex Chrome 7196

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

## Signature:

## Print Name:

## Company Name/Title:

## Date:

## Time:

RELINQUISHED BY: *Richard Cordes*

*Richard Cordes*

TEST / Cooley Drive

10-4-07

1451

RECEIVED BY: *Richard Cordes*

*Richard Cordes*

TEST / Cooley Drive

10-4-07

1451

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

Date: 10-4-07

SAMPLER(S) PRINTED NAME AND SIGNATURE

Richard Carabe / Richard Carabe

ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc NaOH EDA

SAMPLE ID

DATE

TIME

DBSA 20-66 10-4-07 1000 X

Hex Chrome 7196

Aldehydes 8315

Aldehydes 8270C

Dichlorobenzil 8270C

Chlorite 300.1

Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

Signature:

Print Name:

Company Name/Title:

Date:

Time:

RELINQUISHED BY: Richard Carabe

RECEIVED BY: Dan...

CE5/Becelegist

10-4-07

10/4/07 1457

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office



# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

Laboratory: Alpha Analytical  
Contact Person: Latricia Edrosa  
Address: 255 Glendale, Suite 21  
Sparks, NV 89431  
Phone: 1-800-283-1183

FED EX #:

Date: 10-4-07

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cawthorne*

ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container						EDTA
			Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	

DBSA 20-3W 10-4-07 1000

Organic Acids

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 8/20/07)

RELINQUISHED BY: *Richard Cawthorne* Signature:

Print Name:

Company Name/Title:

Date:

Time:

RECEIVED BY: *DBSA*

*Richard Cawthorne*

*GES/Geologist*

10-4-07

3:39

RELINQUISHED BY:

*DBSA*

*GES/Geologist*

10-4-07

3:39

RECEIVED BY:

*DBSA*

*GES/Geologist*

10-4-07

3:39

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

Date: 10-2-07

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT  
PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container					
			Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH

EDTA

Hex Chrome 7196

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

Please run 48 hours TAT

RELINQUISHED BY: *Richard Cooke* Signature:

RECEIVED BY: *S. HINGSON* Print Name:

RELINQUISHED BY:

RECEIVED BY:

Company Name/Title:

Date:

Time:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

Date: 10-2-07

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container						Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	EDA
DBSA 21-R-20	10-2-07	17:55							X						
DBSA 21-R-20-DUP		12:55							X						
DBSA 21-R-30		13:30							X						
DBSA 21-R-40		13:50							X						
DBSA 21-R-50		14:15							X						
DBSA 21-R-60		15:15							X						
DBSA 21-R-70		16:00							X						
DBSA 21-R-70-DUP		16:00							X						
DBSA 21-R-70-45/1450		16:00							X						
DBSA 21-T-80		16:30							X						

Hex Chrome 7196

14000  
14000  
14000  
14000

Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/10/07)

Please run 48 hours TAG

Signature:

Print Name:

RELINQUISHED BY: *Richard Cooke*  
RECEIVED BY: *Salvador*

Company Name/Title: *CSM - PAV*

Date: *10-2-07*

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office



## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

**LABORATORY: TestAmerica-Irvine**

Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

Date: 10-3-07

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Richard Gable / Richard Gable

## ANALYSIS REQUEST

[illegible]

**Comments/Instructions:**

\* Please refer to Table 2 (emailed on 7/16/07)

Signature:

Print Name: \_\_\_\_\_

Company Name/Title:

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

RELINQUISHED BY:	RECEIVED BY:	DATE	TIME
Richard Cable	S.O. Hossain	11-3-07	11:53
Richard Cable	S.O. Hossain	10/3/07	11:53

RELINQUISHED BY:			
RECEIVED BY:			

**For Lab Use Only: Sample Condition Upon Receipt:**

**ORIGINAL:** Send with sample (sign only in blue or black ink)

**COPIES: Retained by Sampler, Sent to Office**

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

**LABORATORY: TestAmerica-Irvine**

Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #

Date: 0-3-07

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

## ANALYSIS REQUEST

Richard Cook / Rural Cook

**PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT**

## PROJECT NUMBER:

[illegible]

**Comments/Instructions:**

\* Please refer to Table 2 (emailed on 7/16/07)

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

**Company Name/Title:**

Time:

RELINQUISHED BY:	Signature	Company (Firm Name)	Date:
RELINQUISHED BY: Richard Conkle	<i>Richard Conkle</i>	GES / G. Encler	10-3-07
RECEIVED BY: R. Salmon	<i>R. Salmon</i>	TA-LV / OSM	10/3
			11/53

RELINQUISHED BY:			
RECEIVED BY:			

**For Lab Use Only: Sample Condition Upon Receipt:**

**ORIGINAL:** Send with sample (sign only in blue or black ink)

**COPIES: Retained by Sampler, Sent to Office**

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

Laboratory: Alpha Analytical  
Contact Person: Patricia Edrosa  
Address: 255 Glendale, Suite 21  
Sparks, NV 89431  
Phone: 1-800-283-1183

FED EX #:

Date: 10-3-07

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc/ NaOH EDA

Organic Acids

SAMPLE ID

DATE

TIME

0730

10-3-07

0730

Comments/Instructions:

\* Please refer to Table 2 (emailed on 8/20/07)

RELINQUISHED BY: *Richard Cooke* Signature:

Print Name:

Company Name/Title:

Date: 10-3-07

RECEIVED BY: *V. Smith*

*Richard Cooke*

10-3-07

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

Date: 9.23.07

SAMPLER(S) PRINTED NAME AND SIGNATURE

Phil Brinkerhoff  
Monty Mehborn / Monty Mehborn

## ANALYSIS REQUEST

PROJECT NAME: BIMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT  
PROJECT NUMBER:

### Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc NaOH EDA

SAMPLE ID DATE TIME

DBSA-23-Q-50 9.23.07 1200

DBSA-23-Q-60 9.23.07 1225

DBSA-23-Q-70 9.23.07 1255

DBSA-23-Q-80 9.23.07 1500

DBSA-23-Q-90 9.23.07 1530

DBSA-23-Q-100 9.23.07 1625

DBSA-23-Q-110 9.23.07 1710

DBSA-23-Q-120 9.23.07 1745

Hex Chrome 7196

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

Hold

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

Signature:

Print Name:

RELINQUISHED BY:

RECEIVED BY:

RELINQUISHED BY:

RECEIVED BY:

Company Name/Title:

Date:

Time:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #: 8593 9055 3350

Date: 9.23.07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

Phil Brinkerhoff / *Phil Brinkerhoff*  
Monty Mehler / *Monty Mehler*

## ANALYSIS REQUEST

### PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

### PROJECT NUMBER:

### Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc/NaOH EDA

TIME DATE

DBSA-23-Q-5 9.23.07 0950

DBSA-23-Q-10 9.23.07 0955

DBSA-23-Q-20 9.23.07 1020

DBSA-23-Q-30 9.23.07 1045

DBSA-23-Q-30 (FD) 9.23.07 1045

DBSA-23-Q-30 (MS/MSD) 9.23.07 1045

DBSA-23-Q-40 9.23.07 1115

DBSA-23-Q-50 9.23.07 1200

DBSA-23-Q-60 9.23.07 1225

DBSA-23-Q-70 9.23.07 1255

PERCHLORATE<sup>1</sup>

RADIONUCLIDES<sup>2</sup>

METALS<sup>3</sup> + Hex Chrome

VOCS<sup>4</sup>

IONS<sup>4</sup>

Gen. Chem<sup>4</sup>

PHYS. PARAMETERS<sup>4</sup>

GRAIN SIZE

PERCENT MOISTURE<sup>5</sup>

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>1</sup> Analyze at TA-Sacramento

<sup>2</sup> Analyze at TA-Richland

<sup>3</sup> Analyze at TA-Irvine

<sup>4</sup> Analyze at TA-Burlington

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

Signature:

Print Name:

Company Name/Title:

Date:

Time:

RELINQUISHED BY: *Monty Mehler*

RECEIVED BY: *Fed Ex 8593 9055 3350*

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #: 8593 9055 0384

Date: 9/23/07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

Monty Mehlerhorn / Monty Mehlerhorn  
Phil Brinkerhoff / Phil Brinkerhoff

## ANALYSIS REQUEST

### PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

### PROJECT NUMBER:

### Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc/ NaOH EDA

TIME DATE

SAMPLE ID

DBSA-23-Q-80

DBSA-23-Q-90

DBSA-23-Q-100

DBSA-23-Q-110

DBSA-23-Q-120

DBSA-23-Q-130

DBSA-23-Q-140

DBSA-23-Q-150

DBSA-23-Q-160

DBSA-23-Q-170

DBSA-23-Q-180

DBSA-23-Q-190

DBSA-23-Q-200

DBSA-23-Q-210

DBSA-23-Q-220

DBSA-23-Q-230

DBSA-23-Q-240

DBSA-23-Q-250

DBSA-23-Q-260

DBSA-23-Q-270

DBSA-23-Q-280

DBSA-23-Q-290

DBSA-23-Q-300

DBSA-23-Q-310

DBSA-23-Q-320

DBSA-23-Q-330

DBSA-23-Q-340

DBSA-23-Q-350

DBSA-23-Q-360

DBSA-23-Q-370

DBSA-23-Q-380

DBSA-23-Q-390

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

1 Analyze at TA-Sacramento

2 Analyze at TA-Richland

3 Analyze at TA-Irvine

4 Analyze at TA-Burlington

5 Please report results in dry weight, therefore all soil will require % moisture testing.

Signature:

Print Name:

Monty Mehlerhorn

Company Name/Title:

G-ES/Geologist

Date:

1700 9/24/07

Time:

9/24/07 1700

RELINQUISHED BY:

RECEIVED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #: 8593396550295 8593 9055 0384

Date: 9/24/07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

Richard Cooke / Richard Cooke  
Phil Brinkerhoff / Phil Brinkerhoff

## ANALYSIS REQUEST

### PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

### PROJECT NUMBER:

### Container

SAMPLE ID	DATE	TIME	Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc	EDTA
085A-23-Q-130	9-24-07	0820	X						

METALS* + Hex Chrome <sup>3</sup>	X								
RADIONUCLIDES <sup>2</sup>	X								
PERCHLORATE <sup>1</sup>	X								
VOCs*	X								
IONS*	X								
Gen. Chem*	X								
PHYS. PARAMETERS <sup>4</sup>									
GRAIN SIZE									
PERCENT MOISTURE <sup>5</sup>	X								

## Comments/Instructions:

- \* Please refer to Table 2 (emailed on 7/16/07)
- <sup>1</sup> Analyze at TA-Sacramento
- <sup>2</sup> Analyze at TA-Richland
- <sup>3</sup> Analyze at TA-Irvine
- <sup>4</sup> Analyze at TA-Burlington
- <sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

## Signature:

## Print Name:

## Company Name/Title:

## Date:

## Time:

RELINQUISHED BY: Richard Cooke  
RECEIVED BY: FedEx Air Bill 8593396550295 8593 9055 0384  
RELINQUISHED BY:  
RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

**ERM CONTACT PERSON**

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

**LABORATORY: TestAmerica-Irvine**

Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #

Date: 2/24/07

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Richard Cooke / Richard Cooke

## ANALYSIS REQUEST

Richard Cooke / Richard Cooke  
Phil Brinkedoff / R. Brinkedoff

**PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT**

**PROJECT NUMBER:**

[illegible]

0101

Hex Chrome 7196

**Comments/Instructions:**

\* Please refer to Table 2 (emailed on 7/16/07)

Signature:

Print Name: \_\_\_\_\_

Company Name/Title:

Time:

RELINQUISHED BY: Erin J. Ward Erin J. Ward

RECEIVED BY: \_\_\_\_\_

Richard Cook  
Darius

GES/Geel 15/17

Chil  
1641

RELINQUISHED BY:

RELINQUISHED  
RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

**ORIGINAL: Send with sample (sign only in blue or black ink)**

**COPIES: Retained by Sampler, Sent to Office**



**ERM CONTACT PERSON**

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

**LABORATORY: TestAmerica-Irvine**

Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #

Date: 9/24/07

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Richard Cooke / Pearl and Corbin

## ANALYSIS REQUEST

[illegible]

**Comments/Instructions:**

\* Please refer to Table 2 (emailed on 7/16/07)

**Signature:**

Print Name:

Company Name/Title:

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

RELINQUISHED BY: DAVID B. ALLEN  
RECEIVED BY: DAVID B. ALLEN

*M. J. M.*

10

11-10	11-10
11-10	11-10

**REFINISHED BY:**

1000

1

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

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1

**For Lab Use Only: Sample Condition Upon Receipt:**

**ORIGINAL:** Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

## ERM CHAIN OF CUSTODY RECORD

**ERM CONTACT PERSON**

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

**LABORATORY: TestAmerica-St. Louis**

Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #: 859 390 550 399

Date: 9/24/07

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Richard Cooke/Riv and Cooke  
P/B.inkhoff

## ANALYSIS REQUEST

[illegible]

**Comments/Instructions:**

\* Please refer to Table 2 (emailed on 7/16/07)

- <sup>1</sup> Analyze at TA-Sacramento
- <sup>2</sup> Analyze at TA-Richland
- <sup>3</sup> Analyze at TA-Denver

**Signature:**

Print Name: \_\_\_\_\_

Company Name/Title:

Time:

RELINQUISHED BY: David A. Smith

RELINQUISHED BY: David Earl Campbell  
RECEIVED BY: Federal Ex. Air Bill 859390550395

Richard C. Gable  
Dr. Martin

025/Genley 17f

9/24/07	1/08
2/24/07	1/03

BEING QUALIFIED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

**ORIGINAL:** Send with sample (sign only in blue or black ink)

**COPIES: Retained by Sampler, Sent to Office**

**ERM CONTACT PERSON**

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

**LABORATORY: TestAmerica-St. Louis**

Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #: 859 390549998

Date: 9-26-07

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Richard Cooke / Rick and Corrie

## ANALYSIS REQUEST

[illegible]

**Comments/Instructions:**

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>1</sup> Analyze at TA-Sacramento

<sup>2</sup> Analyze at TA-Richland

### 3 Analyze at TA-Irvine

<sup>4</sup> Analyze at TA-Burlington

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

**Signature:**

**Print Name:**

**Company Name/Title:**

Time:

RECEIVED BY:

Richard Corbett

Richard Coker

QES/Geologist

9-26-07	11240
1/40	1200

RELINQUISHED BY:

RELINQUISHED BY:

RELINQUISHED BY:

**For Lab Use Only: Sample Condition Upon Receipt:**

**ORIGINAL:** Send with sample (sign only in blue or black ink)

**COPIES: Retained by Sampler, Sent to Office**

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

Date: 9-26-07

SAMPLER(S) PRINTED NAME AND SIGNATURE

*Richard Cooke / Richard Cooke*

ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc/NaOH EDA

SAMPLE ID

DATE

TIME

DBSA 23-T-140 9-26-07 0810 X

DBSA 23-T-150 9-26-07 0840 X

Hex Chrome 7196

Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

Signature:

Print Name:

Company Name/Title:

Date:

RELINQUISHED BY: *Richard Cooke*

RECEIVED BY: *Richard Cooke*

*Richard Cooke*

GES/Geology 1st

9-26-07 1240

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #: 859390553410

Date: 9/21/07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

Monty Mehrlhorn  
Phil Brinkmann / Phil Brinkmann

## ANALYSIS REQUEST

### PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

### PROJECT NUMBER:

### Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc/ NaOH EDA

### SAMPLE ID

### DATE

### TIME

1530

1600

1605

1640

1655

1730

1750

1530

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## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

1 Analyze at TA-Sacramento

2 Analyze at TA-Richland

3 Analyze at TA-Irvine

4 Analyze at TA-Burlington

5 Please report results in dry weight, therefore all soil will require % moisture testing.

## Signature:

RELINQUISHED BY: Monty Mehrlhorn

RECEIVED BY: Fed Ex 8593 9055 3410

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

## Print Name:

Monty Mehrlhorn

## Company Name/Title:

GES/Geologist

Fed Ex

## Date:

9/24/07

9/24/07

## Time:

1700

1700

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Coston, CA 92324  
Phone: (949) 261-1022

FED EX #: 85939055 3339

Date: 9/21/07

SAMPLER(S) PRINTED NAME AND SIGNATURE

Monty Mehlnorn / Monty Mehlnorn  
Phil Brinkerhoff / Phil Brinkerhoff

ANALYSIS REQUEST

9/22/07

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

Container

SAMPLE ID	DATE	TIME	Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc	EDTA
DBSA-26-Q-20	9/21/07	1640	X						
DBSA-26-Q-30	9/21/07	1655	X						
DBSA-26-Q-40	9/21/07	1730	X						
DBSA-26-Q-50	9/21/07	1750	X						
DBSA-26-Q-60	9/22/07	0810	X						
DBSA-26-Q-70	9/22/07	0840	X						
DBSA-26-Q-80	9/22/07	0905	X						
DBSA-26-Q-90	9/22/07	1000	X						
DBSA-26-Q-100	9/22/07	1025	X						
DBSA-26-Q-110	9/22/07	1105	X						

Hex Chrome 7196

Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

Signature:

Print Name:

Company Name/Title:

Date:

Time:

RELINQUISHED BY: [Signature]

RECEIVED BY: [Signature]

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #: 859390553340, 859390550400

Date: 9/22/07

SAMPLER(S) PRINTED NAME AND SIGNATURE

Monty Mehlerndg Monty Mehlerndg  
Phil Brinkerhoff / E. Brinkerhoff

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc NaOH EDA

SAMPLE ID

DATE

TIME

DBSA-26-Q-60

9/22/07

0810

DBSA-26-Q-70

9/22/07

0840

DBSA-26-Q-80

9/22/07

0905

DBSA-26-Q-90

9/22/07

1000

DBSA-26-Q-100

9/22/07

1025

DBSA-26-Q-110

9/22/07

1105

DBSA-26-Q-120

9/22/07

1145

DBSA-26-Q-130

9/22/07

1400

DBSA-26-Q-140

9/22/07

1500

DBSA-26-Q-150

9/22/07

1545

METALS\* + Hex Chrome<sup>3</sup>

RADIONUCLIDES<sup>2</sup>

PERCHLORATE<sup>1</sup>

VOCs\*

IONS\*

Gen. Chem\*

PHYS. PARAMETERS<sup>4</sup>

GRAIN SIZE

PERCENT MOISTURE<sup>5</sup>

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## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>1</sup> Analyze at TA-Sacramento

<sup>2</sup> Analyze at TA-Richland

<sup>3</sup> Analyze at TA-Irvine

<sup>4</sup> Analyze at TA-Burlington

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

Signature:

Print Name:

Company Name/Title:

Date:

RELINQUISHED BY: Monty Mehlerndg  
RECEIVED BY: Fed Ex  
RELINQUISHED BY:  
RECEIVED BY:

GF/Geologist  
Fed Ex  
9/24/07  
9/24/07  
1700  
1700

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

**LABORATORY: TestAmerica-St. Louis**

Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #: 85939055 0395

Date: 9/22/07

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Phil Brinkerhoff / R. Brinkerhoff  
Monty Mehlforn / Monty Mellon

## ANALYSIS REQUEST

[illegible]

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>4</sup> Analyze at TA-Burlington

<sup>1</sup> Analyze at TA-Sacramento

5 Please report results in dry weight, therefore all soil will require % moisture testing.

<sup>2</sup> Analyze at TA-Richland

Please report results in dry weight, therefore all soil will require % moisture testing.

### 3 Analyze at TA-Irvine

### 3 Analyze at TA-Irvine

**Signature:**

Print Name: \_\_\_\_\_

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

**Company Name/Title:**

Prin  
Mantv. Meblhorn

RELINQUISHED BY: <i>Monty Mehlhorn</i>	<i>Monty Mehlhorn</i>	GES/GEOLOGIST	9/17/07	1700
RECEIVED BY: <i>Eod Er 88920055673</i>				

RECEIVED BY:	Feo Ex 8913905503415	11/17/07	GES/GEOLG/LS	4/17/07	1700
RECEIVED BY:	Feo Ex 8913905503415	11/17/07	Feo Ex	4/17/07	1700

RELINQUISHED BY: \_\_\_\_\_

[illegible]

**For Lab Use Only: Sample Condition Upon Receipt:**

**ORIGINAL:** Send with sample (sign only in blue or black ink)

**COPIES: Retained by Sampler, Sent to Office**



## ERM CONTACT PERSON

**LABORATORY: TestAmerica-St. Louis**  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

Date: ~~9/16/07~~ 9/22/07

## FINAL REQUEST

Monty Mehlhorn / Monty Mehlhorn  
Phil Brinkerhoff / Phil Brinkerhoff

**PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT**

**PROJECT NUMBER:**[illegible]

ANALYSIS REQUEST

✓	METALS* + Hex Chrome <sup>3</sup>
✓	RADIONUCLIDES <sup>2</sup>
✓	PERCHLORATE <sup>1</sup>
	VOCs*
✓	IONS*
✓	Gen. Chem*
	PHYS. PARAMETERS <sup>4</sup>
	GRAIN SIZE
✓	PERCENT MOISTURE <sup>5</sup>

Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>1</sup> Analyze at TA-Sacramento<sup>2</sup> Analyze at TA-Richland

### 3 Analyze at TA-Irvine

<sup>4</sup> Analyze at TA-Burlington

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing

Signature:

Print Name: \_\_\_\_\_

Company Name/Title:

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

RELINQUISHED BY: Monty Mellman  
RECEIVED BY: E-159

GES/Geologist

Date:	9/24/07	1700
-------	---------	------

RECEIVED BY: FEELER  
RELINQUISHED BY: \_\_\_\_\_

9/24/67	1700
---------	------

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler. Sent to Office.

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

Date: 9/22/07

SAMPLER(S) PRINTED NAME AND SIGNATURE

Monty Mehlhorn / Monty Mehlhorn  
Phil Brinkerhoff / Phil Brinkerhoff

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

Container

SAMPLE ID	DATE	TIME	Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc	NaOH	EDA
DBSA-26-Q-120	9/22/07	1145	X							
DBSA-26-Q-130	9/22/07	1400	X							
DBSA-26-Q-140	9/22/07	1500	X							
DBSA-26-Q-150	9/22/07	1545	X							
DBSA-26-Q-160	9/22/07	1620	X							
DBSA-26-Q-20	9/23/07	1020	X							
DBSA-23-Q-30	9-23-07	1045	X							
DBSA-23-Q-30(FD)	9-23-07	1045	X							
DBSA-23-Q-30(MSB)	9-23-07	1045	X							
DBSA-23-Q-40	9-23-07	1115	X							

Hex Chrome 7196

Hold  
Hold  
Hold

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

Signature:

Print Name:

Company Name/Title:

Date:

Time:

RELINQUISHED BY:

RECEIVED BY:

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

ERM CONTACT PERSON

**LABORATORY: TestAmerica-St. Louis**  
**Contact Person: Jerry Everett**  
**Address: 13715 Rider Trail North**  
**Earth City, Missouri 63045**  
**Phone: (314) 298-8566**

SAMPLER(S) PRINTED NAME AND SIGNATURE

Date: 8/9/07

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT										ANALYSIS REQUEST													
PROJECT NUMBER:																							
SAMPLE ID		DATE	TIME	Container																			
				Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	EDA													
DBSA-27-Q-0		8/19/07	0750	X							METALS* + Hex Chrome <sup>3</sup>	RADIONUCLIDES <sup>2</sup>	PERCHLORATE <sup>1</sup>	VOCs*	SVOCs + Aldehydes <sup>3</sup> & <del>dichlorobenzene<sup>3</sup></del>	ORGANOCHLORINE PEST <sup>1</sup>	IONS*	Gen. Chem*	PHYS. PARAMETERS <sup>4</sup>	GRAIN SIZE	PERCENT MOISTURE <sup>5</sup>		
DBSA-27-Q-5		8/19/07	0815	X							X	X	X	X	X	X	X	X	X	X	X	X	
DBSA-27-Q-10 (PP/GS)		8/19/07	0900	X							X	X	X	X	X	X	X	X	X	X	X	X	
DBSA-27-Q-10		8/19/07	0900	X							X	X	X	X	X	X	X	X	X	X	X	X	
DBSA-27-Q-20		8/19/07	0920	X							X	X	X	X	X	X	X	X	X	X	X	X	
DBSA-27-Q-20 (FD)		8/19/07	0920	X							X	X	X	X	X	X	X	X	X	X	X	X	
DBSA-27-Q-30		8/19/07	0955	X							X	X	X	X	X	X	X	X	X	X	X	X	
DBSA-27-Q-40		8/19/07	1015	X							X	X	X	X	X	X	X	X	X	X	X	X	
DBSA-27-Q-50		8/19/07	1100	X							X	X	X	X	X	X	X	X	X	X	X	X	
										5 VOC													

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>4</sup> Analyze at TA-Burlington

## Analyze at TA-Sacramento

3. Analyze at TA-Richland

## Analyze at TA-Irvine

<sup>a</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

Signature: \_\_\_\_\_

RELINQUISHED BY: \_\_\_\_\_ Signature: \_\_\_\_\_ Print Name: \_\_\_\_\_

RELINQUISHED BY: <i>Jennifer Perez</i>	Print Name:
RECEIVED BY: <i>Jennifer Perez</i>	Company Name/Title:
	Date:
	Time:

RELINQUISHED BY:	0650	8/9/67	15:00
RECEIVED BY:	0650	8/9/67	15:00
DATE:	0650	8/9/67	15:00
TIME:	0650	8/9/67	15:00
BY:	0650	8/9/67	15:00
FOR:	0650	8/9/67	15:00
REMARKS:	0650	8/9/67	15:00

[illegible]

For Lab Use Only: Sample Condition Upon Receipt:

**ORIGINAL:** Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #: 36736701

Date: 8/13/07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

Monty Mehlhorn *Monty Mehlhorn*

## ANALYSIS REQUEST

### PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

### PROJECT NUMBER:

### Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc/NaOH EDA

### SAMPLE ID

### DATE

### TIME

DBSA-27-Q-60 8/13/07 0835

DBSA-27-Q-70 8/13/07 0900

DBSA-27-Q-80 8/13/07 0910

DBSA-27-Q-90 8/13/07 0935

DBSA-27-T-100 (PP/MS) 8/13/07 1010

DBSA-27-Q-100 8/13/07 1235

DBSA-27-T-100 (MS/MSO) 8/13/07 1235

METALS\* + Hex Chrome <sup>3a</sup>

RADIONUCLIDES <sup>2</sup>

PERCHLORATE <sup>1</sup>

VOCS\*

IONS\*

Gen. Chem\*

PHYS. PARAMETERS <sup>4</sup>

GRAIN SIZE

PERCENT MOISTURE <sup>5</sup>

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>1</sup> Analyze at TA-Sacramento

<sup>2</sup> Analyze at TA-Richland

<sup>3</sup> Analyze at TA-Irvine

<sup>4</sup> Analyze at TA-Burlington

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

## Signature:

## Print Name:

## Company Name/Title:

## Date:

## Time:

RELINQUISHED BY: *Monty Mehlhorn*

RECEIVED BY: *Fed Ex # 36736701*

*Monty Mehlhorn*

*858476433782*

*Monty Mehlhorn*

*GES/Geologist*

*8/13/07*

*1700*

*8/13/07*

*1700*

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #: 859390553306, 859390553317

Date: 9/20/07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

Monty Mehlhorn  
Ph. Brinkerhoff

## ANALYSIS REQUEST

## PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

### PROJECT NUMBER:

### Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc/NaOH EDA

SAMPLE ID DATE TIME

DBSA-29-Q-70 9/20/07 1050

DBSA-29-Q-80 9/20/07 1130

DBSA-29-Q-90 9/20/07 1200

DBSA-29-Q-100 9/20/07 1335

DBSA-29-Q-110 9/20/07 1410

DBSA-29-Q-120 9/20/07 1505

DBSA-29-Q-130 9/20/07 1610

DBSA-29-Q-140 9/20/07 1655

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

1 Analyze at TA-Sacramento

2 Analyze at TA-Richland

3 Analyze at TA-Irvine

4 Analyze at TA-Burlington

5 Please report results in dry weight, therefore all soil will require % moisture testing.

Signature:

Print Name:

Company Name/Title:

Date:

Time:

RELINQUISHED BY: Monty Mehlhorn

RECEIVED BY: Richard Conkle

RELINQUISHED BY: Richard Conkle

RECEIVED BY: FedEx Air 8:11 859390553307

RELINQUISHED BY: Richard Conkle

RECEIVED BY: Richard Conkle

RELINQUISHED BY: Richard Conkle

RECEIVED BY: Richard Conkle

RELINQUISHED BY: Richard Conkle

RECEIVED BY: Richard Conkle

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RELINQUISHED BY: Richard Conkle

RECEIVED BY: Richard Conkle

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

## ERM CONTACT PERSON

**LABORATORY: TestAmerica-St. Louis**  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

Date: 9/20/07

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Monty Mehlhorn / Monty Mehlhorn  
Phil Beinkeshoff / L. Beinkeshoff

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT	Container
PROJECT NUMBER:	

SAMPLE ID	DATE	TIME	Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	EDA
DBSA-29-Q-5	9/20/07	0800	X						
DBSA-29-Q-10	9/20/07	0805	X						
DBSA-29-Q-10(FD)	9/20/07	0805	X						
Trip Blank									
DBSA-29-Q-20	9/20/07	0835	X						
DBSA-29-Q-30	9/20/07	0900	X						
DBSA-29-Q-40	9/20/07	0930	X						
DBSA-29-Q-50	9/20/07	0955	X						
DBSA-29-Q-60	9/20/07	1020	X						

**Comments/Instructions:**

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>1</sup> Analyze at TA-Sacramento

<sup>2</sup> Analyze at TA-Richland

### 3 Analyze at TA-Irvine

<sup>4</sup> Analyze at TA-Burlington

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

Signature:

**Print Name:**

Company Name/Title:

Time:

RELINQUISHED BY:	Company Name/Title:	Date:	Time:
Monty Mehlhorn	GES / Geologist	4/2/07	0535

RECEIVED BY: Richard Cottle 9/24/07 0535

RELINQUISHED BY: Richard Cooke	Richard Cooke	CGS/Geologist	9/24/07	1100
RECEIVED BY: FedEx Air Br. 899390553306				

**For Lab Use Only: Sample Condition Upon Receipt:**

**ORIGINAL:** Send with sample (sign only in blue or black ink)

**COPIES: Retained by Sampler, Sent to Office**

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Coston, CA 92324  
Phone: (949) 261-1022

FED EX #: 859390553328

Date: 9/20/07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

Monty Mehlnhorn / R. Brinkhoff

## ANALYSIS REQUEST

## PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

### PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container						EDTA
			Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc	
DBSA-29-Q-20	9/20/07	0935	X						
DBSA-29-Q-30	9/20/07	0900	X						
DBSA-29-Q-40	9/20/07	0930	X						
DBSA-29-Q-50	9/20/07	0955	X						
DBSA-29-Q-60	9/20/07	1020	X						
DBSA-29-Q-70	9/20/07	1050	X						
DBSA-29-Q-80	9/20/07	1130	X						
DBSA-29-Q-90	9/20/07	1200	X						
DBSA-29-Q-100	9/20/07	1335	X						
DBSA-29-Q-110	9/20/07	1410	X						

Hex Chrome 7196

Hold  
Hold  
Hold  
Hold  
Hold  
Hold

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

## Signature:

## Print Name:

## Date:

## Company Name/Title:

## Time:

RELINQUISHED BY: Monty Mehlnhorn	Monty Mehlnhorn	GES/Geologist	9/20/07	1805
RECEIVED BY: R. Brinkhoff	Richard Brinkhoff	GES/Geologist	9/20/07	1805
RELINQUISHED BY: Richard Brinkhoff	Richard Brinkhoff	GES/Geologist	9/20/07	1100
RECEIVED BY: FedEx #111 859390553328				

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

**LABORATORY: TestAmerica-Irvine**  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #: 8593 9055 3328

Date: 9/20/07

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Monty Melhorn Monty Melhorn

Ph.1 Brinkerhoff/E.-Berkhoff

**PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT**

**PROJECT NUMBER:**

[illegible]

Hex Chrome 7196

X	X	X
Hold	Hold	Hold

**Comments/Instructions:**

\* Please refer to Table 2 (emailed on 7/16/07)

**Signature:**

Print Name: \_\_\_\_\_

**Company Name/Title:**

Time:

RELINQUISHED BY: Monty Melillo

Monte Mellicorn

CES/Geoblast

306/1995

RECEIVED BY: Wickard, G

Richard C. Currell

۱۵۰۰/۱۶۰۰

505

RELINQUISHED BY: William C. Coker

Richard Cappel

AS 160/027/577

0201

**For Lab Use Only: Sample Condition Upon Receipt;**

**ORIGINAL: Send with sample (sign only in blue or black ink)**

**COPIES: Retained by Sampler, Sent to Office**





**ERM CONTACT PERSON**

**LABORATORY: TestAmerica-St. Louis**  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Monty Mehlhorn / Monty Mehlhorn  
Phil Brinkehoff / R. Brinkehoff

ANALYSIS REQUEST

Date: 9/21/07

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT	Customer:
PROJECT NUMBER:	

[illegible]

**Comments/Instructions:**

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>4</sup> Analyze at TA-Burlington

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing. Analyze at 1 A-Burrington

### Analyze at TA-Sacramento

## 2. Analyze at TA-Richland

### 3 Analyze at T<sub>A</sub>-Irvine

**Signature:**

Print Name:

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

9/21/07	1700
---------	------

7/21/07	1700
---------	------

[illegible]

**For Lab Use Only: Sample Condition Upon Receipt:**

**ORIGINAL:** Send with sample (sign only in blue or black ink)

**COPIES: Retained by Sampler, Sent to Office**

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

Laboratory: Alpha Analytical  
Contact Person: Patricia Edrosa  
Address: 255 Glendale, Suite 21  
Sparks, NV 89431  
Phone: 1-800-283-1183

FED EX #:

Date: 9/21/07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

Monty Mehlnhorn  
Phil Brinkshoff

## ANALYSIS REQUEST

### PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

### PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container					
			Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH

DBSH-27-GW	9/21/07	0830	X					
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Organic Acids

X

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 8/20/07)

Signature:

RELINQUISHED BY: Monty Mehlnhorn

RECEIVED BY: Richard Cooke

RELINQUISHED BY: Richard Cooke

RECEIVED BY: U.S.M.T.S.

Print Name:

Monty Mehlnhorn

Richard Cooke

Richard Cooke

U.S.M.T.S.

Date:

9/21/07

9/21/07

9/21/07

9/21/07

9/21/07

9/21/07

9/21/07

9/21/07

9/21/07

9/21/07

9/21/07

9/21/07

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

**ERM CONTACT PERSON**

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

**LABORATORY: TestAmerica-Irvine**

Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #: 859390553475

Date: 9/21/87

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Monty Mehlhorn / Monty Mehlhorn  
Phil Brinkerhoff / Phil Brinkerhoff

## ANALYSIS REQUEST

[illegible]

**Comments/Instructions:**

\* Please refer to Table 2 (emailed on 7/16/07)

**Signature:**

RELINQUISHED BY: Monty Spedden  
RECEIVED BY: Fealox

Print Name: \_\_\_\_\_

Monty Melhorn

**Company Name/Title:**

GES/Geologist  
FedEx

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

Date.	9/21/07	1700
Date.	9/21/07	1700

**RELINQUISHED BY:**

RECEIVED BY.

**For Lab Use Only: Sample Condition Upon Receipt:**

ORIGINAL: Send with sample (sign only in blue or black ink)

**COPIES: Retained by Sampler, Sent to Office**

**ERM CONTACT PERSON**

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

## LABORATORY: TestAmerica-St. Louis

Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #: 859390553431, 859390553442, 859390553453, 859390553464

Date: 9/21/07

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Monty, Melhorn / Monty Melhorn  
Phil Brinkerhoff / P. Brinkerhoff

## ANALYSIS REQUEST

[illegible]

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

- 1 Analyze at TA-Sacramento
- 2 Analyze at TA-Richland
- 3 Analyze at TA-Denver

**Signature:**

RELINQUISHED BY: *Monty McElhara*  
RECEIVED BY: *FedEx*

Print Name:

Monty Mehkhorn

**Company Name/Title:**

GES/Geologist  
Fed Ex

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

Date:	9/21/07	1700
	9/21/06	1700

RELINQUISHED BY:

RECEIVED BY:

**For Lab Use Only: Sample Condition Upon Receipt:**

**ORIGINAL:** Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler. Sent to Office

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

**LABORATORY: TestAmerica-Irvine**

Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #: 859390553486

Date: 9/21/03

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Monty Mehlerhorn / Monty Mehlerhorn  
Phil Brinkerhoff / R. Brinkerhoff

## ANALYSIS REQUEST

[illegible]

**Comments/Instructions:**

\* Please refer to Table 2 (emailed on 7/16/07)

**Signature:**

RELINQUISHED BY: Monty Melchar  
RECEIVED BY: Field Ed

Print Name: \_\_\_\_\_

Monty Mehlhorn

**Company Name/Title:**

Company Name/ID: GEs/Geologist  
FedEx

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

Date:	9/21/07	1700
	9/21/07	1700

RELINQUISHED BY:

RECEIVED BY:

**For Lab Use Only: Sample Condition Upon Receipt:**

**ORIGINAL:** Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office



# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #: 85938549910

Date: 9/18/07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

Monty Mehlhorn / *Monty Mehlhorn*  
Phyl Brinkerhoff / *Phyl Brinkerhoff*

## ANALYSIS REQUEST

9/19/07

## PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

### PROJECT NUMBER:

### Container

SAMPLE ID	DATE	TIME	Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc	NaOH	EDA
DSBA-30-Q-90	9/18/07	1240	X							
DSBA-30-Q-100	9/18/07	1430	X							
DSBA-30-Q-110	9/18/07	1515	X							
DSBA-30-Q-120	9/18/07	1610	X							
DSBA-30-Q-130	9/18/07	1655	X							
DSBA-30-Q-140	9/18/07	170935	X							
DSBA-30-T-150	9/19/07	1030	X							
DSBA-30-T-150 (mslmsd)	9/19/07	1030	X							
DSBA-30-T-160	9/19/07	1100	X							

Hex Chrome 7196

HOLD  
HOLD  
HOLD  
HOLD

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

Signature:

Print Name:

Company Name/Title:

Date:

Time:

RELINQUISHED BY: Monty Mehlhorn

*Monty Mehlhorn*

GES/Geologist

9/19/07

1700

RECEIVED BY: Fed Ex

Fed Ex

9/19/07

1700

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office



## ERM CONTACT PERSON

**LABORATORY: TestAmerica-St. Louis**  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #: 859 398/553177

Date:

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Morty Mehlhorn / Monty Mehlhorn / Phil Brinkerhoff / R. Brinkerhoff  
Richard Cicotte / Richard Coughlin

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT					
PROJECT NUMBER:			Container		
SAMPLE ID	DATE	TIME	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl
DBSA-30-Q-S	9/18/07	0810	X		
DBSA-30-Q-10	9/18/07	0812	X		
Trip Blank					X
DBSA-30-Q-20	9/18/07	0850	X		
DBSA-30-Q-30	9/18/07	0915	X		
DBSA-30-Q-40	9/18/07	0940	X		
DBSA-30-Q-50	9/18/07	1005	X		
DBSA-30-Q-60	9/18/07	1035	X		
DBSA-30-Q-70	9/18/07	1100	X		
DBSA-30-Q-80	9/18/07	1135	X		

Monty Mehner / Monica Meller  
 Richard Ciolek / Richard Cogoli  
*(Signature)* Phil Brinker note

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>4</sup> Analyze at TA-Burlington

### 1 Analyze at TA-Sacramento

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

<sup>2</sup> Analyze at TA-Richland<sup>2</sup> Analyze at TA-Richland

### 3 Analyze at TA-Irvine

Signature: D. O. J.

Print Name: \_\_\_\_\_

Company Name/Title:

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

RELINQUISHED BY:	COMPANY IDENTIFICATION:	DATE:
Richard Corbett	CBS	9/18/07
RECEIVED BY: Federal	13:11 859390553177	1400

RELINQUISHED BY:

RECEIVED BY:

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# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #: 859 39 8553166

SAMPLER(S) PRINTED NAME AND SIGNATURE

Monty Melihorn / Mary Mella / Phil Brinkerhoff

Date:

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT  
PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container					
			Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc
DBSA-30-Q-20	9/18/07	0850	X					
DBSA-30-Q-30	9/18/07	0915	X					
DBSA-30-Q-40	9/18/07	0940	X					
DBSA-30-Q-50	9/18/07	1005	X					
DBSA-30-Q-60	9/18/07	1035	X					
DBSA-30-Q-70	9/18/07	1100	X					
DBSA-30-Q-80	9/18/07	1135	X					
Rinsate-3	9/18/07	1210	X					
DBSA-30-Q-90	9/18/07	1240	X					

Hex Chrome 7196

HOLD  
HOLD  
HOLD  
HOLD

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

RELINQUISHED BY: Signature: Richard Crake

RECEIVED BY: Forster A/B/B/ 859 39 055 3166

Print Name:

Richard Crake

Company Name/Title:

CAES

Date:

9/18/07

RELINQUISHED BY: Signature: S. Alhassan

RECEIVED BY: S. Alhassan

Signature: S. Alhassan

Signature: S. Alhassan

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

**LABORATORY: TestAmerica-St. Louis**

Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FEDEX #: 859390553497

Date:

SAMPLER(S) PRINTED NAME AND SIGNATURE

Monty Melhorn / Monty Melhorn Phil Brinker Hoff

## ANALYSIS REQUEST

[illegible]

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

- <sup>1</sup> Analyze at TA-Sacramento
- <sup>2</sup> Analyze at TA-Richland
- <sup>3</sup> Analyze at TA-Denver

Signature:

Printed

Company Name/Title:

Page 10

**RELINQUISHED BY:**

RECEIVED BY:

**RELINQUISHED BY:**

RECEIVED BY:

For-Lab Use Only: Sample Condition Upon Receipt:

**ORIGINAL: Send with sample (sign only in blue or black ink)**

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

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Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #:

Date: 9/19/07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

Monty Mehnhorn / Monty Mehnhorn

Phil Brinkerhoff / P. Brinkerhoff

## ANALYSIS REQUEST

### PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

### PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container						Hex Chrome 7196	Aldehydes 8315	Aldehydes 8270C	Dichlorobenzil 8270C	Chlorite 300.1
			Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	EDA				
DBSA-30-GW	9/19/07	0730	X						X	X	X	X	X

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

Signature: Monty Mehnhorn

Print Name: Monty Mehnhorn

Date: 9/19/07

RELINQUISHED BY: Monty Mehnhorn  
RECEIVED BY: Fed Ex

RELINQUISHED BY: Fed Ex  
RECEIVED BY: Fed Ex

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #: 859390549895

Date: 9/19/07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

Monty Mehlerhorn / Monty Mehlerhorn Phil Brinkertoff / Phil Brinkertoff

## ANALYSIS REQUEST

### PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

### PROJECT NUMBER:

SAMPLE ID	DATE	TIME	Container						EDA	NaOH	ZnAc/NaOH	Hex Chrome 7196	Aldehydes 8315	Aldehydes 8270C	Dichlorobenzil 8270C	Chlorite 300.1										
			Unpres	H2SO4	HNO3	HCl	NaOH																			

DBSA-30-66

9/19/07

0730

X

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

Signature:

Print Name:

Company Name/Title:

Date:

Time:

RELINQUISHED BY: Monty Mehlerhorn

Monty Mehlerhorn

GES / Geologist

9/19/07

1700

RECEIVED BY: Fed Ex

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

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# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #: 859396550010, 859396549921

Date:

SAMPLER(S) PRINTED NAME AND SIGNATURE

Monty Mehlhorn / Monty Mehlhorn

Phil Brinkhoff / R. Brinkhoff

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

PROJECT NUMBER:

Container

SAMPLE ID	DATE	TIME	Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	EDA
DBSA-30-GW	9/19/07	0730	X	X	X	X	X	X	X

METALS*	RADIONUCLIDES <sup>2</sup>	PERCHLORATE <sup>1</sup>	VOCs*	IONS*	Gen. Chem*	Dissolved Gases	OP Pesticides <sup>3</sup>	OC Pesticides*	SVOCs *	Water Quality Parameters
X	X	X	X	X	X					X

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

- Analyze at TA-Sacramento
- Analyze at TA-Richland
- Analyze at TA-Denver

Signature:

RELINQUISHED BY: Monty Mehlhorn

RECEIVED BY: Fed Ex

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

Print Name:

Monty Mehlhorn

Company Name/Title:

GES/Geologist  
Fed Ex

Date:

9/19/07 1700  
9/19/07-1700

ORIGINAL: Send with sample (sign only in blue or black ink)

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**ERM CONTACT PERSON**

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

**Laboratory: Alpha Analytical**  
**Contact Person: Latricia Edrosa**  
**Address: 255 Glendale, Suite 21**  
**Sparks, NV 89431**  
**Phone: 1-800-283-1183**

FED EX #:

Date: 9/19/07

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Monty Mehler / Monty Meddison

Phil Brinkerhoff / R. B. Brinkerhoff

2. observed Caroline R. Cooper

**PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT**

## PROJECT NUMBER:

PROJECT NUMBER:			Container							
SAMPLE ID	DATE	TIME	Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	EDA	
DBSA-30-mm DBSA-30-(Gw)	9/19/07	0730	X							

Organic Acids

Comments/Instructions:

\* Please refer to Table 2 (emailed on 8/20/07)

**Signature:**

Print Name:

Company Name/Title:

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

RELINQUISHED BY: Paula Cordero  
RECEIVED BY: Paula Cordero

Richard Corle  
V. SMITH

9/19/07	1530
9-15-07	1530

**RELINQUISHED BY:**

**Figure 1**

[illegible]

Year	Percentage
1950	7
1960	10
1970	12
1980	14
1990	16
2000	17
2010	18
2020	19
2030	20
2040	20
2050	18

For Lab Use Only: Sample Condition Upon Receipt:

**ORIGINAL:** Send with sample (sign only in blue or black ink)

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**ERM CONTACT PERSON**

**Name:** Maria Barajas-Albalawi  
**Address:** 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
**Phone #:** (916) 924-9378

**LABORATORY: TestAmerica-St Louis**

Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

井ノ口

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Date: 8/14/07

ANALYSIS REQUEST																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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## Comments/Instructions:

Please refer to Table 2 (emailed on 7/16/07)

#### 4 Analyze at TA-Burlington

## Analyze the A-Sacrament

## Analyze at TA-Richland

### Analyze at TA-Irvine

Signature: A

REINQUISHED BY:	Full Name:	Company Name/Title:	Date:
	Full Name:	Company Name/Title:	Date:
	Full Name:	Company Name/Title:	Date:
	Full Name:	Company Name/Title:	Date:

[illegible]


RELINQUISHED BY:

RECEIVED BY:	

**For Lab Use Only: Sample Condition Upon Receipt:**

**ORIGINAL:** Send with sample (sign only in blue or black ink)

**COPIES: Retained by Sampler, Sent to Office**



# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-8566

FED EX #: 46408901

SAMPLER(S) PRINTED NAME AND SIGNATURE

Monty Melhorn / Jennifer Perez

Date: 8/14/07

## ANALYSIS REQUEST

PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT																											
PROJECT NUMBER:																											
SAMPLE ID	DATE	TIME	Container						METALS* + Hex Chrome	RADIONUCLIDES <sup>2</sup>	PERCHLORATE <sup>1</sup>	VOCs*	IONS*	Gen. Chem*	PHYS. PARAMETERS <sup>4</sup>	GRAIN SIZE	PERCENT MOISTURE <sup>5</sup>	Aldehydes - SW835	Ald. - SW870C	SVOCs - SW870C	Chlorite	Water Quality Para					
			Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc															NaOH	EDA			
DBSA-32-Q-50	8/14/07	0955	X							X	X	X	X	X			X	X	X	X	X	X	X	X			
DBSA-32-Q-60	8/14/07	1030	X								X	X	X	X	X			X	X	X	X	X	X	X			
DBSA-32-Q-70	8/14/07	1100	X								X	X	X	X	X			X	X	X	X	X	X	X			
DBSA-32-GW	8/14/07	1130	X								X	X	X	X	X			X	X	X	X	X	X	X			
DBSA-32-T-80	8/14/07	1340	X								X	X	X	X	X			X	X	X	X	X	X	X			
DBSA-32-T-90 <sup>max</sup>	8/14/07	1450	X								X	X	X	X	X			X	X	X	X	X	X	X			

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

<sup>1</sup> Analyze at TA-Sacramento

<sup>2</sup> Analyze at TA-Richland

<sup>3</sup> Analyze at TA-Irvine

<sup>4</sup> Analyze at TA-Burlington

<sup>5</sup> Please report results in dry weight, therefore all soil will require % moisture testing.

RELINQUISHED BY: Jennifer Perez

RECEIVED BY: Fed Ex 0682, 0693, 0606, 0607

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

**ERIN CONTACT PERSON**

**LABORATORY: TestAmerica-St. Louis**  
Contact Person: Jerry Everett  
Address: 13715 Rider Trail North  
Earth City, Missouri 63045  
Phone: (314) 298-9566

**Name:** Maria Barajas-Albalawi  
**Address:** 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
**Phone #:** (916) 924-9378

EXED

Date: 8/14/07

**SAMPLER(S) PRINTED NAME AND SIGNATURE**

Monty Mehlhorn Monty Mehlhorn  
Jennifer Perez / Jennifer Perez

### ANALYSIS REQUEST

[illegible]

## Comments/Instructions:

Please refer to Table 2 (emailed on 7/16/07)

<sup>4</sup> Analyze at TA-Burlington

## Analyze at TA-Sacramento

Analyze at TA-Richland

## Analyze at TA-Irvine

Signature:

Print Name: \_\_\_\_\_

**Company Name/Title:**

Date: . Time:

RECEIVED BY:

Charles V. Deery

Teonifer Perez

DATE: 10/14/15 TIME: 15:00

**RELINQUISHED BY:**

*[Signature]*

125551	6/2/51
--------	--------

**For Lab Use Only: Sample Condition Upon Receipt:**

**ORIGINAL: Send with sample (sign only in blue or black ink)**

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
 Address: 2525 Natomas Park Drive, Suite 350  
 Sacramento, CA 95833  
 Phone #: (916) 924-9378

LABORATORY: TestAmerica-St. Louis  
 Contact Person: Jerry Everett  
 Address: 13715 Rider Trail North  
 Earth City, Missouri 63045  
 Phone: (314) 298-8566

FED EX #: 858 4764 33668

Date: 9/17/07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

Monty Mehlhorn / Monty Mellan Phil Brinkerhoff / P. Brinkerhoff

## ANALYSIS REQUEST

### PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

#### PROJECT NUMBER:

#### Container

Unpres H2SO4 HNO3 HCl NaOH ZnAc/ NaOH EDA

SAMPLE ID DATE TIME

DBSA-33-0 9/17/07 0955

DBSA-33-5 9/17/07 1505

DBSA-33-10 9/17/07 1510

DBSA-33-20 9/17/07 1540

DBSA-33-20(FD) 9/17/07 1540

DBSA-33-T-30 9/17/07 1605

Trip Blank 9/17/07 0945

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

1 Analyze at TA-Sacramento

2 Analyze at TA-Richland

3 Analyze at TA-Denver

## Signature:

RELINQUISHED BY:

RECEIVED BY:

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

## Print Name:

RELINQUISHED BY:

RECEIVED BY:

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

## Company Name/Title:

RELINQUISHED BY:

RECEIVED BY:

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

## Date:

RELINQUISHED BY:

RECEIVED BY:

RELINQUISHED BY:

RECEIVED BY:

For Lab Use Only: Sample Condition Upon Receipt:

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

# ERM CHAIN OF CUSTODY RECORD

## ERM CONTACT PERSON

Name: Maria Barajas-Albalawi  
Address: 2525 Natomas Park Drive, Suite 350  
Sacramento, CA 95833  
Phone #: (916) 924-9378

LABORATORY: TestAmerica-Irvine  
Contact Person: Nicholas Marz  
Address: 1014 E. Cooley Drive, Ste A  
Colton, CA 92324  
Phone: (949) 261-1022

FED EX #: 858476433624

ALC

Date: 9/17/07

## SAMPLER(S) PRINTED NAME AND SIGNATURE

Monty Melhorn / Monty Melhorn Phil Brinkerhoff / Phil Brinkerhoff

## ANALYSIS REQUEST

## PROJECT NAME: BMI DEEP BACKGROUND INVESTIGATION SAMPLING EVENT

### PROJECT NUMBER:

### Container

SAMPLE ID	DATE	TIME	Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc	EDA
DBSA-33-20	9/17/07	1540	X						
DBSA-33-20(FD)	9/17/07	1540	X						
DBSA-33-7-30	9/17/07	1605	X						

Hex Chrome 7196

## Comments/Instructions:

\* Please refer to Table 2 (emailed on 7/16/07)

## Signature:

## Print Name:

## Company Name/Title:

## Date:

## Time:

RELINQUISHED BY: <i>Phil Brinkerhoff</i>	GES	9/17/07	5:30
RECEIVED BY: <i>Richard Cooke</i>	GES	9/17/07	5:30
RELINQUISHED BY: <i>Richard Cooke</i>	GES	9/18/07	0900
RECEIVED BY: <i>Fed Ex Air Mail 858476433624</i>			

For Lab Use Only: Sample Condition Upon Receipt: *ALC*

ORIGINAL: Send with sample (sign only in blue or black ink)

COPIES: Retained by Sampler, Sent to Office

**APPENDIX D**  
**TAILGATE SAFETY MEETING FORMS**

## TAILGATE SAFETY MEETING FORM

Date: 8/7/07 Time: 0820 Job Number: 20072226V1Client: BRCSite Specific Location: DBSA-2

## Safety Topics Presented

Protective Clothing/Equipment: Level "D"Chemical Hazards: NonePhysical Hazards: Drill rig, Heat, Uneven Surfaces

Special Equipment: \_\_\_\_\_

Other: \_\_\_\_\_

Emergency Procedures: Call 911Hospital: 911 Phone: 911 Ambulance Phone: 911Hospital Address and Route: St. Rose: Intersection of Boulder Highway and Lake Mead

## ATTENDEES

NAME PRINTED

Shawn Sears EarleManuel A. Quintana

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

SIGNATURE

Shawn Sears EarleManuel A. Quintana

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Meeting Conducted By: Monty Mehlhorn  
Name PrintedMonty Mehlhorn  
SignatureOn-Site Safety Officer: Monty MehlhornProject Manager: Ranajit Sahy

## TAILGATE SAFETY MEETING FORM

Date: 8/6/07 Time: 0800 Job Number: 2007 2226V1Client: BRCSite Specific Location: DBSA-1

## Safety Topics Presented

Protective Clothing/Equipment: Level "D", Hard Hat, Safety Glasses, GlovesChemical Hazards: NonePhysical Hazards: Heat, Cars

Special Equipment: \_\_\_\_\_

Other: \_\_\_\_\_

Emergency Procedures: Call 911Hospital: St. Rose Phone: 911 Ambulance Phone: 911Hospital Address and Route: Boulder Highway & Lake Mead

## ATTENDEES

## NAME PRINTED

## SIGNATURE

MANUEL A. Quinones EPOIC[Signature]Shawn Sears Epi[Signature]Jennifer Perez OES[Signature]

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Meeting Conducted By: Monty Mehlhorn  
Name Printed[Signature]  
SignatureOn-Site Safety Officer: Monty Mehlhorn Project Manager: Ranjit Sahu

## TAILGATE SAFETY MEETING FORM

Date: 8/8/07 Time: 0730 Job Number: 2007 222611Client: BRC

Site Specific Location: \_\_\_\_\_

## Safety Topics Presented

Protective Clothing/Equipment: Level "D"Chemical Hazards: NonePhysical Hazards: Heat, Drill Rig Pinch Points

Special Equipment: \_\_\_\_\_

Other: \_\_\_\_\_

Emergency Procedures: Apply 1st Aid, Call 911 in neededHospital: St. Rose Phone: 911 Ambulance Phone: 911

Hospital Address and Route: \_\_\_\_\_

## ATTENDEES

## NAME PRINTED

Juan P. MartinezNEIL L WIKTORMargaret A. Quintana E70048Shawn Adams Eagle

## SIGNATURE

Juan P. MartinezNeil WiktorMargaret A. QuintanaShawn AdamsMeeting Conducted By: Monty Mehlhorn  
Name PrintedMonty Mehlhorn  
SignatureOn-Site Safety Officer: Monty MehlhornProject Manager: Banajit Saha



## TAILGATE SAFETY MEETING FORM

Date: 10-18-07 Time: 0620 Job Number: 20072226 U1Client: Basic Remediation CompanySite Specific Location: DBSA 8

## Safety Topics Presented

Protective Clothing/Equipment: Level 'D' PPE.Chemical Hazards: No chemical hazards anticipatedPhysical Hazards: Traffic, power lines (overhead), fatigueSpecial Equipment: none

Other: \_\_\_\_\_

Emergency Procedures: Call 911Hospital: St. Rose Phone: (702) 616-5000 Ambulance Phone: \_\_\_\_\_Hospital Address and Route: NWC of Lake Mead Pkwy 1/2 Boulder Hwy

## ATTENDEES

## NAME PRINTED

Richard CookeCLIFF HILLMANDARIUS CERVANTESBILL HAWKINS

## SIGNATURE

Richard CookeCliff HillmanDarius CervantesBill HawkinsMeeting Conducted By: R. Cooke  
Name PrintedRichard Cooke  
SignatureOn-Site Safety Officer: R. CookeProject Manager: R. Cooke

## TAILGATE SAFETY MEETING FORM

Date: 10-15-07 Time: 0650 Job Number: 20072226 U1Client: Basic Remediation CompanySite Specific Location: OB SA 9

## Safety Topics Presented

Protective Clothing/Equipment: Level 'D' PPE.Chemical Hazards: No chemical hazards anticipatedPhysical Hazards: Traffic, power lines (overhead), fatigueSpecial Equipment: none

Other: \_\_\_\_\_

Emergency Procedures: Call 911Hospital: St. RosePhone: (702) 616-5000 Ambulance Phone: \_\_\_\_\_Hospital Address and Route: NWC of Lake Mead PKwy 1/2 Boulder Hwy

## ATTENDEES

## NAME PRINTED

Richard CookeCLIFF HILLMANDARIUS CERVANTESBILL HAKMAN

## SIGNATURE

Richard CookeCliff HillmanDarius CervantesBill HakmanR. CookeMeeting Conducted By: Monty Mehlhorn

Name Printed

Richard CookeMonty Mehlhorn

Signature

On-Site Safety Officer: R. CookeProject Manager: R. Cooke

## TAILGATE SAFETY MEETING FORM

Date: 10-16-07 Time: 0600 Job Number: 20072226 U1Client: Basic Remediation CompanySite Specific Location: DBSA 9 and DBSA 10

## Safety Topics Presented

Protective Clothing/Equipment: Level D PPE.Chemical Hazards: No chemical hazards anticipatedPhysical Hazards: Traffic, power lines (overhead), fatigueSpecial Equipment: none

Other: \_\_\_\_\_

Emergency Procedures: Call 911Hospital: St. Rose Phone: (702) 616-5000 Ambulance Phone: \_\_\_\_\_Hospital Address and Route: NWC of Lake Mead Pkwy 1/2 Boulder Hwy

## ATTENDEES

## NAME PRINTED

Richard CookeCLIFF HILLMANDARIUS CERVANTESBILL HAWKINS

## SIGNATURE

Richard CookeCliff HillmanDarius CervantesBill HawkinsMeeting Conducted By: R. Cooke

Name Printed

Richard CookeMonty McMahon

Signature

On-Site Safety Officer: R. CookeProject Manager: R. Cooke

## TAILGATE SAFETY MEETING FORM

Date: 10-16-07 Time: 0600 Job Number: 20072226 U1Client: Basic Remediation CompanySite Specific Location: DBSA 10

## Safety Topics Presented

Protective Clothing/Equipment: Level D PPEChemical Hazards: No chemical hazards anticipatedPhysical Hazards: Traffic, power lines (overhead), fatigueSpecial Equipment: None

Other: \_\_\_\_\_

Emergency Procedures: Call 911Hospital: St. Rose Phone: (702) 616-5000 Ambulance Phone: \_\_\_\_\_Hospital Address and Route: NWC of Lake Mead PKwy 1/2 Boulder Hwy

## ATTENDEES

## NAME PRINTED

Richard CookeCLIFF HILLMANDARIUS CERVANTESBILL HAWKINS

## SIGNATURE

Richard CookeCliff HillmanDarius CervantesBill HawkinsMeeting Conducted By: R. Cooke  
Name PrintedRichard Cooke  
SignatureOn-Site Safety Officer: R. CookeProject Manager: R. Cooke

## TAILGATE SAFETY MEETING FORM

Date: 10-17-07 Time: 0600 Job Number: 20072226 U1Client: Basic Remediation CompanySite Specific Location: DBSA 10 1/2, DBSA 8

## Safety Topics Presented

Protective Clothing/Equipment: Level D PPE.Chemical Hazards: No chemical hazards anticipatedPhysical Hazards: Traffic, power lines (overhead), fatigueSpecial Equipment: none

Other: \_\_\_\_\_

Emergency Procedures: Call 911Hospital: St. Rose Phone: (702) 616-5000 Ambulance Phone: \_\_\_\_\_Hospital Address and Route: NWC of Lake Mead Pkwy 1/2 Boulder Hwy

## ATTENDEES

## NAME PRINTED

Richard CookeCLIFF HILLMANDARIUS CERVANTESBILL HAWKINS

## SIGNATURE

Richard CookeCliff HillmanDarius CervantesBill HawkinsMeeting Conducted By: R. Cooke  
Name PrintedRichard Cooke  
SignatureOn-Site Safety Officer: R. CookeProject Manager: R. Cooke

## TAILGATE SAFETY MEETING FORM

Date: 10-8-07 Time: 0615 Job Number: 20072226 U1Client: Basic Remediation CompanySite Specific Location: DB SA 11

## Safety Topics Presented

Protective Clothing/Equipment: Level D PPE.Chemical Hazards: No chemical hazards anticipatedPhysical Hazards: Traffic, power lines (overhead), fatigueSpecial Equipment: none

Other: \_\_\_\_\_

Emergency Procedures: Call 911Hospital: St. RosePhone: (702) 616-5000 Ambulance Phone: \_\_\_\_\_Hospital Address and Route: NWC of Lake Mead Pkwy 1/2 Boulder Hwy

## ATTENDEES

## NAME PRINTED

Richard CookeCLIFF HILLMANDARIUS CERVANTESBILL HAWKINS

## SIGNATURE

Richard CookeCliff HillmanDarius CervantesBill HawkinsMeeting Conducted By: R. Cooke

Name Printed

Monty Mehlhorn

Signature

On-Site Safety Officer: R. CookeProject Manager: R. Cooke

## TAILGATE SAFETY MEETING FORM

Date: 10-9-07 Time: 0945 Job Number: 20072226 U1Client: Basic Remediation CompanySite Specific Location: DBSA 14

## Safety Topics Presented

Protective Clothing/Equipment: Level 'D' PPE.Chemical Hazards: No chemical hazards anticipatedPhysical Hazards: Traffic, power lines (overhead), fatigueSpecial Equipment: none

Other: \_\_\_\_\_

Emergency Procedures: Call 911Hospital: St. RosePhone: (702) 616-5000 Ambulance Phone: \_\_\_\_\_Hospital Address and Route: NWC of Lake Mead Pkwy 1/2 Boulder Hwy

## ATTENDEES

## NAME PRINTED

Richard CookeCLIFF HILLMANDARIUS CERVANTESBILL HAWKINS

## SIGNATURE

Richard CookeCliff HillmanDarius CervantesBill HawkinsR. CookeMeeting Conducted By: Monty Matheson  
Name PrintedRichard CookeMonty Matheson  
SignatureOn-Site Safety Officer: R. CookeProject Manager: R. Cooke

## TAILGATE SAFETY MEETING FORM

Date: 10-10-07 Time: 0605 Job Number: 20072226 V1Client: Basic Remediation CompanySite Specific Location: DBSA 14

## Safety Topics Presented

Protective Clothing/Equipment: Level 'D' PPE.Chemical Hazards: No chemical hazards anticipatedPhysical Hazards: Traffic, power lines (overhead), fatigueSpecial Equipment: none

Other: \_\_\_\_\_

Emergency Procedures: Call 911Hospital: St. RosePhone: (702) 616-5000 Ambulance Phone: \_\_\_\_\_Hospital Address and Route: NWC of Lake Mead PKwy 1/2 Boulder Hwy

## ATTENDEES

## NAME PRINTED

Richard CookeCLIFF HILLMANDARIUS CERVANTESBILL HAWKINS

## SIGNATURE

Richard CookeCliff HillmanDarius CervantesBill HawkinsMeeting Conducted By: R. Cooke  
Monty Markham  
Name PrintedRichard Cooke  
Monty Markham  
SignatureOn-Site Safety Officer: R. CookeProject Manager: R. Cooke



## TAILGATE SAFETY MEETING FORM

Date: 10-7-07 Time: 0630 Job Number: 20072226 U1Client: Basic Remediation CompanySite Specific Location: DBSA 15

## Safety Topics Presented

Protective Clothing/Equipment: Level 'D' PPE.Chemical Hazards: No chemical hazards anticipatedPhysical Hazards: Traffic, power lines (overhead), fatigueSpecial Equipment: none

Other: \_\_\_\_\_

Emergency Procedures: Call 911Hospital: St. RosePhone: (702) 616-5000 Ambulance Phone: \_\_\_\_\_Hospital Address and Route: NWC of Lake Mead PKwy 1/2 Boulder Hwy

## ATTENDEES

## NAME PRINTED

Richard CookeCLIFF HILLMANDARIUS CERVANTESBILL HAWKINSPhil Brinkshoff

## SIGNATURE

Richard CookeCliff HillmanDarius CervantesBill HawkinsPhil BrinkshoffMeeting Conducted By: Monty Mehlhorn  
Name PrintedRichard Cooke  
Monty Mehlhorn  
SignatureOn-Site Safety Officer: R. CookeProject Manager: R. Cooke

## TAILGATE SAFETY MEETING FORM

Date: 10-6-07 Time: 0955 Job Number: 20072226 U1Client: Basic Remediation CompanySite Specific Location: DBSA 15

## Safety Topics Presented

Protective Clothing/Equipment: Level 'D' PPE.Chemical Hazards: No chemical hazards anticipatedPhysical Hazards: Traffic, power lines (overhead), fatigueSpecial Equipment: None

Other: \_\_\_\_\_

Emergency Procedures: Call 911Hospital: St. Rose Phone: (702) 616-5000 Ambulance Phone: \_\_\_\_\_Hospital Address and Route: NWC of Lake Mead Pkwy 1/2 Boulder Hwy

## ATTENDEES

## NAME PRINTED

Richard CookeCLIFF HILLMANDARIUS CERVANTESBILL HAWKINS

## SIGNATURE

Richard CookeCliff HillmanDarius CervantesBill HawkinsMeeting Conducted By: Monty Mehlhorn  
Name PrintedMonty Mehlhorn  
SignatureOn-Site Safety Officer: R. CookeProject Manager: R. Cooke

## TAILGATE SAFETY MEETING FORM

Date: 10-5-07 Time: 0645 Job Number: 20072226 U1Client: Basic Remediation CompanySite Specific Location: DBSA 17

## Safety Topics Presented

Protective Clothing/Equipment: Level 'D' PPE.Chemical Hazards: No chemical hazards anticipatedPhysical Hazards: Traffic, power lines (overhead), fatigueSpecial Equipment: None

Other: \_\_\_\_\_

Emergency Procedures: Call 911Hospital: St. Rose Phone: (202) 616-5000 Ambulance Phone: \_\_\_\_\_Hospital Address and Route: NWC of Lake Mead PKwy 1/2 Boulder Hwy

## ATTENDEES

## NAME PRINTED

Richard CookeCLIFF HILLMANDARIUS CERVANTESBILL HAKMAN

## SIGNATURE

Richard CookeCliff HillmanDarius CervantesBill HakmanMeeting Conducted By: R. Cooke  
Name PrintedRichard Cooke  
SignatureOn-Site Safety Officer: R. CookeProject Manager: R. Cooke

## TAILGATE SAFETY MEETING FORM

Date: 10-4-07 Time: 0600 Job Number: 20072226 V1Client: Basic Remediation CompanySite Specific Location: DBSA 20

## Safety Topics Presented

Protective Clothing/Equipment: Level D PPEChemical Hazards: No chemical hazards anticipatedPhysical Hazards: Traffic, power lines (overhead), fatigueSpecial Equipment: None

Other: \_\_\_\_\_

Emergency Procedures: Call 911Hospital: St. Rose Phone: (702) 616-5000 Ambulance Phone: \_\_\_\_\_Hospital Address and Route: NWC of Lake Mead PKwy 1/2 Boulder Hwy

## ATTENDEES

## NAME PRINTED

Richard CookeCLIFF HILLMANDARIUS CERVANTESBILL HAKMAN

## SIGNATURE

Richard CookeCliff HillmanDarius CervantesBill HakmanMeeting Conducted By: R. Cooke  
Monty Mehlhorn  
Name PrintedRichard Cooke  
Monty Mehlhorn  
SignatureOn-Site Safety Officer: R. CookeProject Manager: R. Cooke

## TAILGATE SAFETY MEETING FORM

Date: 10-3-07 Time: 1300 Job Number: 20072226 U1Client: Basic Remediation CompanySite Specific Location: DBSA 20

## Safety Topics Presented

Protective Clothing/Equipment: Level 'D' PPE.Chemical Hazards: No chemical hazards anticipatedPhysical Hazards: Traffic, power lines (overhead), fatigueSpecial Equipment: none

Other: \_\_\_\_\_

Emergency Procedures: Call 911Hospital: St. RosePhone: (202) 616-5000 Ambulance Phone: \_\_\_\_\_Hospital Address and Route: NWC of Lake Mead PKwy 1/2 Boulder Hwy

## ATTENDEES

## NAME PRINTED

Richard CookeCLIFF HILLMANDARIUS CERVANTESBILL HAWKINS

## SIGNATURE

Richard CookeCliff HillmanDarius CervantesBill Hawkins

Meeting Conducted By:

R. Cooke  
Monty McMahon  
Name PrintedR. Cooke  
Monty McMahon  
SignatureOn-Site Safety Officer: R. CookeProject Manager: R. Cooke

## TAILGATE SAFETY MEETING FORM

Date: 10-3-07 Time: 0630 Job Number: 20072226 U1Client: Basic Remediation CompanySite Specific Location: DBSA 21

## Safety Topics Presented

Protective Clothing/Equipment: Level D PPEChemical Hazards: No chemical hazards anticipatedPhysical Hazards: Traffic, power lines (overhead), fatigueSpecial Equipment: none

Other: \_\_\_\_\_

Emergency Procedures: Call 911Hospital: St. Rose Phone: (702) 616-5000 Ambulance Phone: \_\_\_\_\_Hospital Address and Route: NWC of Lake Mead Pkwy 1/2 Boulder Hwy

## ATTENDEES

## NAME PRINTED

Richard CookeCLIFF HILLMANDARIUS CERVANTESBILL HAWKINS

## SIGNATURE

Richard CookeCliff HillmanDarius CervantesBill HawkinsMeeting Conducted By: R. Cooke  
Name PrintedRichard Cooke  
SignatureOn-Site Safety Officer: R. CookeProject Manager: R. Cooke

## TAILGATE SAFETY MEETING FORM

Date: 10-2-07 Time: 1000 Job Number: 20072226 U1Client: Basic Remediation CompanySite Specific Location: DBSA 21

## Safety Topics Presented

Protective Clothing/Equipment: Level 'D' PPE.Chemical Hazards: No chemical hazards anticipatedPhysical Hazards: Traffic, power lines (overhead), fatigueSpecial Equipment: none

Other: \_\_\_\_\_

Emergency Procedures: Call 911Hospital: St. Rose Phone: (702) 616-5000 Ambulance Phone: \_\_\_\_\_Hospital Address and Route: NWC of Lake Mead PKwy 1/2 Boulder Hwy

## ATTENDEES

## NAME PRINTED

Richard CookeCLIFF HILLMANDARIUS CERVANTESBILL HAWKINS

## SIGNATURE

Richard CookeCliff HillmanDarius CervantesBill HawkinsMeeting Conducted By: R. Cooke  
Name PrintedRichard Cooke  
SignatureOn-Site Safety Officer: R. CookeProject Manager: R. Cooke

## TAILGATE SAFETY MEETING FORM

Date: 9-26-07 Time: 0645 Job Number: 20072226 U1Client: Basic Remediation CompanySite Specific Location: DBSA 23

## Safety Topics Presented

Protective Clothing/Equipment: Level 'D' PPE.Chemical Hazards: No chemical hazards anticipatedPhysical Hazards: Traffic, power lines (overhead), fatigueSpecial Equipment: none

Other: \_\_\_\_\_

Emergency Procedures: Call 911Hospital: St. Rose Phone: (702) 616-5000 Ambulance Phone: \_\_\_\_\_Hospital Address and Route: NWC of Lake Mead PKwy 1/2 Boulder Hwy

## ATTENDEES

## NAME PRINTED

## SIGNATURE

Richard CookeRichard CookeCLIFF HILLMANCliff HillmanDARIUS CERVANTESDarius CervantesBILL HAWKINSBill HawkinsMeeting Conducted By: Monty Mehlhorn  
Name PrintedMonty Mehlhorn  
SignatureOn-Site Safety Officer: R. CookeProject Manager: R. Cooke



## TAILGATE SAFETY MEETING FORM

Date: 8/9/07 Time: 0720 Job Number: 2007 222611Client: BRCSite Specific Location: DBSA-27

## Safety Topics Presented

Protective Clothing/Equipment: Level "D"Chemical Hazards: None ExpectedPhysical Hazards: Traffic, Etc

Special Equipment: \_\_\_\_\_

Other: \_\_\_\_\_

Emergency Procedures: Call 911Hospital: 911 Phone: 911 Ambulance Phone: 911

Hospital Address and Route:

## ATTENDEES

<u>NAME PRINTED</u>
<u>L. BASTON</u>
<u>NEIL WHITON</u>
<u>EDWIN GARCIA</u>
<u>EDUARDO LUIS</u>
<u>Jennifer Perez</u>

<u>SIGNATURE</u>
<u>[Signature]</u>
<u>[Signature]</u>
<u>[Signature]</u>
<u>Jennifer Perez</u>

Meeting Conducted By: <u>Monty Mehlhorn</u>	<u>Monty Mehlhorn</u>
Name Printed	Signature

On-Site Safety Officer: <u>Monty Mehlhorn</u>	Project Manager: <u>Ranjit Sahu</u>
---	-------------------------------------

## TAILGATE SAFETY MEETING FORM

Date: 8/13/07 Time: 0735 Job Number: 20072226V1Client: BRCSite Specific Location: DBSA-27

## Safety Topics Presented

Protective Clothing/Equipment: Level "D"-Hard Hats, Safety Glasses, Steel toed  
BootsChemical Hazards: None expectedPhysical Hazards: Heat, Traffic, Etc.Special Equipment: Diedrich D-120 H.S.A. Drill RigOther: N/AEmergency Procedures: Call 911 after applying 1st AidHospital: 911 Phone: 911 Ambulance Phone: 911Hospital Address and Route: St. Rose: Go back on Racetrack Road to Warm Springs,  
Turn Rt., go to Lake Mead Dr, then turn Rt. past  
Boulder Highway

## ATTENDEES

NAME PRINTED

SIGNATURE

Shawn Sears  
EDUARDO LUISRam Saha  
EdwardsMANUEL A. QUINONES CPHESManjitMeeting Conducted By: Manty Mehlhorn Manty Mehlhorn  
Name Printed SignatureOn-Site Safety Officer: Manty Mehlhorn Project Manager: Ramajit Saha

## TAILGATE SAFETY MEETING FORM

Date: 9/19/07 Time: 0805 Job Number: 2007222601Client: BRCSite Specific Location: DBSA-30

## Safety Topics Presented

Protective Clothing/Equipment: Level "D"Chemical Hazards: NonePhysical Hazards: Heat, Traffic, Uneven Surfaces

Special Equipment: \_\_\_\_\_

Other: \_\_\_\_\_

Emergency Procedures: Call 911Hospital: St. Rose Phone: 911 Ambulance Phone: \_\_\_\_\_

Hospital Address and Route:

## ATTENDEES

## NAME PRINTED

Hillman, CliffordCervantes, DariusHavins, BillySchoen, David

## SIGNATURE

Clifford HillmanDarius CervantesBilly HavinsDavid SchoenMeeting Conducted By: Monty Mehlhorn  
Name PrintedMonty Mehlhorn  
SignatureOn-Site Safety Officer: Monty MehlhornProject Manager: Ranjit Saha

## TAILGATE SAFETY MEETING FORM

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Job Number: 20072226 U1Client: Basic Remediation Company

Site Specific Location: \_\_\_\_\_

## Safety Topics Presented

Protective Clothing/Equipment: Level 'D' PPE.Chemical Hazards: No chemical hazards anticipatedPhysical Hazards: Traffic, power lines (overhead), fatigueSpecial Equipment: none

Other: \_\_\_\_\_

Emergency Procedures: Call 911Hospital: St. Rose Phone: (702) 616-5000 Ambulance Phone: \_\_\_\_\_Hospital Address and Route: NWC of Lake Mead PKwy 1/2 Boulder Hwy

## ATTENDEES

## NAME PRINTED

Richard CookeCLIFF HILLMANDARIUS CERVANTESBILL HAWKINS

## SIGNATURE

Richard CookeCliff HillmanDarius CervantesBill HawkinsMeeting Conducted By: Monty Mehlhorn  
Name PrintedMonty Mehlhorn  
SignatureOn-Site Safety Officer: R. CookeProject Manager: R. Cooke

## TAILGATE SAFETY MEETING FORM

Date: 9/24/07 Time: 0600 Job Number: 20072226 U1Client: Basic Remediation Company

Site Specific Location: \_\_\_\_\_

## Safety Topics Presented

Protective Clothing/Equipment: Level 'D' PPE.Chemical Hazards: No chemical hazards anticipatedPhysical Hazards: Traffic, power lines (overhead), fatigueSpecial Equipment: none

Other: \_\_\_\_\_

Emergency Procedures: Call 911Hospital: St. Rose Phone: (702) 616-5000 Ambulance Phone: \_\_\_\_\_Hospital Address and Route: NWC of Lake Mead Pkwy 1/2 Boulder Hwy

## ATTENDEES

## NAME PRINTED

Richard CookeCLIFF HILLMANDARIUS CERVANTESBILL HAWKINS

## SIGNATURE

Richard CookeCliff HillmanDarius CervantesBill HawkinsMeeting Conducted By: Monty Mehlhorn  
Name PrintedMonty Mehlhorn  
SignatureOn-Site Safety Officer: R. CookeProject Manager: R. Cooke

## TAILGATE SAFETY MEETING FORM

Date: 8/14/07 Time: \_\_\_\_\_ Job Number: 20072226V1Client: BRCSite Specific Location: DBSA - 32

## Safety Topics Presented

Protective Clothing/Equipment: Level "D": Hard Hat, Safety Glasses, Steel-Toed Boots.Chemical Hazards: NonePhysical Hazards: Heat

Special Equipment: \_\_\_\_\_

Other: \_\_\_\_\_

Emergency Procedures: Call 911Hospital: 911 Phone: 911 Ambulance Phone: 911Hospital Address and Route: Take Berlin Ave. to Racetrack Road, then  
ATTENDEES turn Rt, stay on Racetrack to Warm Springs, go Rt,  
Turn Left on Lk Mead, 1st Rt past Boulder Highway - St. Rose

NAME PRINTED

SIGNATURE

Monty A. MehlhornMonty MehlhornEDUARDO WISEdward Wis EAGLEShawn SearlesShawn Searles EagleJennifer PerezJennifer PerezMeeting Conducted By: Monty Mehlhorn  
Name PrintedMonty Mehlhorn  
SignatureOn-Site Safety Officer: Monty Mehlhorn Project Manager: Ranjit Sahu