

EXHIBIT 16



PARAGON GEOTECHNICAL
CONSULTING ENGINEERS

May 5, 2008

Hidden Lakes Estates Homeowners Association
c/o Frei Real Estate Services
8340 Auburn Boulevard, Suite 100
Citrus Heights, CA 95610

Attention: Ms. Jackie Gregory

Re: Geotechnical Evaluation of Pond Seepage
Hidden Lakes Estates North Pond Dam
Hidden Lakes Estates
Granite Bay, California
(Proj. No. 1383-01-07)

Dear Ms. Gregory:

This report presents the results of our geotechnical evaluation of seepage from a small earth dam located at the north end of the north pond in the Hidden Lakes Estates residential subdivision in Granite Bay, California (Plate 1). The scope of our work included: 1) reviewing selected geologic references; 2) drilling 4 exploratory borings in the area of the north dam, and 1 in the south dam; 3) performing laboratory and field testing, engineering analyses and groundwater level monitoring; and 4) producing this report summarizing our geotechnical findings and conclusions. Our scope of work was outlined in our Professional Services Agreement with the Hidden Lakes Estates Homeowners Association (HLEHA) dated February 16, 2007.

As requested by the HLEHA, this report presents only the results of our work for the north dam, although the findings from our exploratory boring and laboratory testing of the south dam are briefly discussed.

PROJECT DESCRIPTION

The dam is located at the north end of the northernmost of two ponds, and immediately south of Lots 69 through 73 (Plate 2). The ponds are each approximately 1-acre in surface area, and lie within a 5-acre common area near the center of the subdivision. The ponds are located within a pre-existing drainage and were created by constructing 2 earth dams in about 1978: 1 at the north end of the north (upper) pond, and 1 at the south end of the south (lower) pond. The south

HLE EXHIBIT 16

dam also supports a Placer County maintained paved road in the subdivision. We understand that the ponds are supplied mainly with piped water (San Juan Irrigation District), with only a small amount of seasonal runoff coming into the ponds via a minor swale in the southeast corner of the north pond.

Our understanding of the project is based on our discussions with representatives of the HLEHA and our review of as-built (GW Consulting Engineers, 1978) improvement plans for Hidden Lakes Unit No. 1 and 2 provided by the HLEHA. We understand that no construction records for the dams have been found other than the as-built drawings (1 sheet for each dam).

WORK PERFORMED

Exploratory Borings

Prior to our investigation, we reviewed selected geologic references, as well as as-built information for the dam and associated pond. Six exploratory borings (B1 through B4, B1A and B2A) were drilled within or near the north dam to depths of approximately 6 to 15 feet below existing site grade under the supervision of our Senior Engineer at the approximate locations shown in Plate 2. One boring (B5) was drilled within the south dam to a depth of about 13 feet. The borings were advanced with a CME-45 truck-mounted drill rig equipped with 6- or 8-inch-diameter hollow-stem augers. B1A and B2A were drilled strictly to facilitate piezometer installation.

During drilling, representative samples were obtained in borings B1 through B5 using California (2.5-inch I.D.) and Standard Penetration Test - SPT (1-3/8-inch I.D.) split-spoon samplers. The samplers were driven into the soil a distance of 18 inches using a 140-pound hammer dropped from a height of 30 inches. The number of blows required for each 6-inch increment of sampler drive was recorded. The California sampler blow counts were correlated to the equivalent SPT blow counts. The blow count for each 6-inch drive, and the cumulative blow count for the last 12 inches of drive, or fraction thereof, presented on the boring logs represent the number of SPT (or correlated) blows required to drive the sampler.

Logs of borings were prepared based on the field logging, visual examination of the samples in the laboratory and the results of laboratory testing. The soils encountered are described in accordance with the criteria presented in Plates 3 and 4. Logs of the exploratory borings B1 through B4, B1A and B2A are presented in Plates 5 through 10. The logs depict our interpretation of the subsurface conditions found in the borings on the date and at the depth indicated. The stratification lines on the logs represent approximate boundaries between soil types, and the actual transitions may be gradual.

HLE EXHIBIT 16



Piezometer Installation

Upon completion of the borings, a standpipe piezometer consisting of 2-inch-diameter schedule 40 PVC pipe with a capped bottom was installed in each boring. The screened interval of each piezometer consisted of machine-slotted pipe, and the annulus between the screened interval and the wall of the boring was filled with No. 3 Monterey sand. The screened intervals were sealed at the top with about 12 to 18 inches of bentonite chips, and the remainder of the annulus was backfilled with cement grout to within about 12 inches of the ground surface. Water was added to hydrate the bentonite chips prior to placing the grout. The piezometers were cut off just below the existing site grade and capped. A flush-mount box with a locking cover was set in concrete over each piezometer. The depth of each piezometer and associated screened interval is shown in the following table:

PIEZOMETER INSTALLATION SUMMARY

Boring No.	B1A	B2A	B3	B4	B5
Depth of Boring (ft)	15	8	6	10	13
Depth of Piezometer (ft)	15	8	6	10	13
Screened Interval (ft)	11 to 15	5 to 8	4 to 6	7.3 to 10	3 to 13
Location of Screened Interval	Bedrock	Embankment	Bedrock	Bedrock	Embankment/Bedrock

Field Permeability Testing

In-situ constant head permeability testing was performed in piezometers B1A and B2A. Piezometer B1A was screened between depths of about 11 and 15 feet within highly weathered bedrock. Piezometer B2A was screened between depths of about 5 and 8 feet within embankment material. The test apparatus consisted of a water reservoir located approximately 4 feet above each piezometer casing and connected to the top of the casing with rigid pipe. On April 18, 2007 the reservoirs were filled with water several times to saturate the test zone. The permeability tests were performed on April 19, 2007. During each test, a constant head of water was maintained in the reservoir, and the volume of water introduced into the piezometer over a given time interval was recorded. Three tests were performed in piezometer B1A and 4 tests were performed in piezometer B2A.



Laboratory Testing

Laboratory testing was conducted on disturbed soil samples recovered during the site investigation. Tests conducted included:

- Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil, Rock and Soil Aggregate Mixtures (ASTM D 2216);
- Standard Test Method for Density of Soil in Place by the Drive-Cylinder Method (ASTM D 2937);
- Standard Test Method for Amount of Material in Soils Finer Than the No. 200 Sieve (ASTM D 1140);
- Standard Test Method for Particle-Size Analysis of Soils (ASTM D 422);
- Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (ASTM D 1557); and
- Standard Test Method for Measurement of Hydraulic Conductivity of Porous Material Using a Rigid-Wall, Compaction-Mold Permeameter (ASTM D 5856).

Laboratory test results are presented on the boring logs at the locations of the samples tested and on Plates 11 through 16.

The laboratory permeability testing was performed on “undisturbed” liner samples collected from borings B1 and B3, and on a bulk sample (Bulk B from boring B1A) of embankment material obtained during exploratory drilling. The bulk sample was remolded in the laboratory to approximately 90 percent of the theoretical maximum dry density of the material based on the results of the laboratory compaction testing.

Groundwater Level Monitoring

Groundwater level measurements were made in our borings/piezometers at the time of drilling/installation, and periodically thereafter (and continuing presently). Also at the time of drilling and piezometer installation, and again in July 2007, we took groundwater level measurements in 5 piezometers and 1 “monitoring well” previously installed by others (HTA Science and Engineering, Inc., 2006) on Lots 71 and 72. The locations of the piezometers and monitoring well are shown on Plate 2. Due to access restrictions imposed by the homeowners of the two lots, measurement of the piezometers and well were discontinued after July 30, 2007.



A summary of groundwater measurements taken from the piezometers is presented in tabular form at the end of this report, and in graphical form on Plate 17.

FINDINGS

Site Conditions

A relatively detailed topographic survey (performed by others) of the north dam and adjacent residential lots is presented in Plate 2. At the time of our field exploration, the north dam was approximately 5 to 6 feet high, as measured from the downstream toe to the crest of the embankment. The crest of the embankment was about 20 feet wide, and was nearly level. The water level in the pond was located about 1.5 to 2 feet below the crest of the embankment.

The downstream slope into lot 71 had an overall inclination of about 4H:1V (horizontal:vertical) or flatter. The slope in lot 71 was not uniform due to a walkway and steps cut into the slope and the presence of a soil berm approximately 3 feet in height running approximately northeast-southwest across the slope. The berm appeared to be material excavated from the walkway. The slope contained about 7 evergreen trees up to about 10 inches in diameter, and 3 small shrubs located at the toe in the southwest portion of the lot. The ground across the slope was generally bare (i.e., no grass, weeds, or ground cover).

The face of the downstream slope in lots 71 and 72 appeared to be dry. The ground surface within and adjacent to the southeastern portion of the lawn area beyond the toe of the slope in lot 71 was observed to be damp (not wet), and moss indicative of damp ground conditions was present near a wood fence marking the property boundary. Standing water was observed in an irrigation valve box located adjacent to the lawn in this area.

The downstream slope in lot 72 was inclined at about 3H:1V or flatter. An approximately 3-foot-high wood retaining wall was located along the toe of the embankment in lot 72; extending from the west property line several feet to the east. The central and eastern portions of the embankment slope contained a rock retaining wall about 2 feet in height. The slope in lot 72 was landscaped with scattered small shrubs and trees, and a short hedge near the top of the slope, and contained a ground cover of landscape bark.

The end of a corrugated metal pipe (CMP) was located at the upstream edge of the embankment, south of lot 72, and the presumed downstream end of the same pipe was exposed at the toe of the downstream slope near the western property boundary of lot 72. The exposed upstream end of the CMP was partially crushed and nearly filled with sediment and debris. The downstream end was also deformed and partially buried. The recently completed topographic survey of the dam and adjacent lots identified the up- and downstream ends of the culvert as having diameters of 16 and 12 inches, respectively. The differences in diameter may be due to the partial crushing. An



as-built drawing (GW Consulting Engineers, 1978) of the embankment calls out a 15-inch-diameter, 16GA CMP.

A plot plan of the development provided by the HLEHA shows a "MDE" running along the boundary between lots 71 and 72. We understand that MDE is an acronym for "meandering drainage easement." At the time of our field investigations, we did not observe any signs of a surface drainage feature such as a swale or ditch along the property boundary within the backyards of lots 71 and 72. The topographic survey (performed several months after our field investigation) indicates that a 12-inch-diameter CMP inlet is also located near the back (southwest portion) of lot 72, about 7 feet northeast of the outlet for the CMP that runs from the pond. The presumed outlet for this CMP is located in the front of lot 72 near the intersection of Jon Way and Hidden Lakes Drive East.

Four standpipe piezometers and 1 "monitoring well" installed by HTA Science & Engineering, Inc. (2006) as described above were observed within the embankment slope and backyard on lot 71. A standpipe piezometer was also observed on the embankment slope on lot 72, and is reported to have also been installed by HTA. The piezometers are numbered P1 through P5 in the HTA report, and the "monitoring well" is numbered MW1. A second monitoring well (MW2) was installed in the backyard of Lot 72 according to the HTA report; however, we could not locate MW2 during our site visits. The homeowner of lot 72 indicated that it might have been buried during landscaping of their backyard.

Subsurface Conditions

The site is located within the foothills of the Sierra Nevada geomorphic province. The foothills bedrock generally consists of fault-bounded lithologic terranes of Paleozoic- and Mesozoic-age marine sedimentary and volcanic rock that have been isoclinally folded, deformed and metamorphosed. Structural orientations (bedding, foliation, fault/shear zones) generally have a north to northwest trend, and dip steeply east. Bedrock within the vicinity of the site has been previously mapped as Mesozoic-era granodiorite intrusive rock associated with the Rocklin Pluton (Loyd, et al., 1995).

Our exploratory borings generally encountered very loose to medium dense silty sands (locally known as "DG") overlying completely to highly weathered granitic bedrock. In borings B1 and B2 in the embankment, the upper approximately 6 feet of material was generally medium dense, and there was a change in color of the soil from a light orange-brown to a light gray at depth of about 4 feet. In boring B2, a zone of wet, very loose, dark grey/black, organic-laden soil was found at a depth of about 6.5 feet. This material was estimated to extend to a depth of about 8.5 feet. Dark gray, loose silty sand was also found in boring B4 at a depth of about 2.5 feet. The material became wet at about 3.5 feet, and contained some organics.



Bedrock was found in borings B1 and B2 at a depth of about 9 feet below existing grade, in boring B3 at a depth of about 3.5 feet, and in B4 at a depth of about 6 feet. The rock encountered was generally completely weathered and friable at the surface, and became less weathered and stronger with depth.

Groundwater

Free groundwater was measured in borings B1 and B1A, and wet soil was logged in borings B2 and B4, at the time of drilling. Groundwater level measurements were made in each boring at the time of drilling, and in the piezometers several times since installation. The measurements are presented in tabular and graph form at the end of this report.

Due to the relatively large time gap between measurements, it is difficult to identify long-term trends in the data. However, the data does suggest relatively steady-state seepage conditions in the dam, with slight seasonal variations. The data from the piezometers on lot 71 indicate a lowering of the groundwater level of about 9 to 13 inches between April 19 and July 2, 2007 with a slight increase by July 30, 2007.

Permeability

The results of our laboratory and field permeability testing within the north dam embankment and foundation are summarized below:

Embankment (Soil)			
Sample No.	Depth (ft)	Permeability	Test Type
B1A Bulk B	4 – 5.5	4.6×10^{-6} cm/sec	Laboratory – sample remolded to 90 percent of the max. dry density**
B1-3-2	6	7.0×10^{-7} cm/sec	Laboratory – “undisturbed” sample
Boring B2A	5 – 8	8.8×10^{-4} cm/sec	In situ
Foundation (Rock)			
Sample No.	Depth (ft)	Permeability	Test Type
B3-3-1	5	8.0×10^{-4} cm/sec	Laboratory – “undisturbed” sample
Boring B1A	11 – 15	9.9×10^{-5} cm/sec	In situ

** ASTM D 1557 test method



CONCLUSIONS

North Dam

Based on the results of our field and laboratory testing and on our review of information generated by others regarding seepage in the area of the north dam, we have developed the following conclusions:

- The zone of dark grey, loose, wet soil found between depths of about 6.5 and 8.5 feet in our boring B2 is likely original soil that was part of the pre-existing drainage swale which the dam crosses. This material should have been removed as part of the foundation preparation prior to construction of the embankment. The rate of seepage through this material would be expected to be higher than that of well-compacted portions of the embankment and foundation.
- The embankment material comprising the dam appears to be relatively well compacted. A comparison of in situ dry density with the laboratory maximum dry density indicates a relative compaction of approximately 90 to 91 percent. However this is less than the minimum compaction of 95 percent specified on the as-built drawing for the dam.
- The laboratory measured permeability rates for the “undisturbed” and remolded samples of embankment material are somewhat lower than what would be expected for well compacted silty sand “DG” material. The lower permeabilities may be the result of the infiltration of bentonite clay into the embankment materials, which was reportedly placed on the upstream face of the embankment at the time of construction (GW Consulting Engineers). We understand that bentonite may have also been placed on the upstream face of the embankment at some point after the embankment was constructed.
- The density and saturation of the embankment foundation is judged to be relatively variable, based on the results of our field exploration, and on the results of a field resistivity survey of the embankment performed by others (Shaw Environmental, Inc., 2006). However, we did not observe indications of slope instability or seepage on the downstream face, or at the toe of the dam.
- Seepage is occurring through the north dam; however, it appears to be confined mainly to the interface between the bedrock surface and the bottom of the embankment/soil portion of the foundation. This conclusion is supported by the fact that the soil samples we collected from higher up in the embankment were not wet, combined with our observations of free water and/or wet soils near the base of the embankment. Further evidence of the seepage is the presence of groundwater in the piezometers installed by HTA in the downstream slope of the dam in Lots 71 and 72.

HLE EXHIBIT 16



- The phreatic surface associated with the seepage through the dam is judged to be about 4.5 feet below the crest of the dam with a relatively shallow falling gradient towards the northeast; consistent with the ground surface in the area. We understand that the pond level in the vicinity of the north dam is quite constant throughout the year; varying only a few inches in elevation. Therefore, it is reasonable to conclude that a steady-state seepage condition has developed within the dam embankment and foundation. The relatively minor fluctuations in ground water levels observed in the piezometers may therefore be the result of seasonal variations associated with seepage of surface runoff into the ground. The sources for runoff would be expected to mainly consist of rainfall in the winter/spring and landscape irrigation in the summer/fall.
- The seepage occurring in the dam embankment and foundation is not judged to be excessive relative to what would be expected for the as-constructed condition of the embankment and foundation. If the dam foundation had been completely stripped of the unsuitable materials, and the bottom of the embankment keyed several feet into firm rock, the seepage at the embankment/foundation interface would probably be somewhat less than currently exists. However, all earth dams can be expected to have some seepage, and the subject dam does not appear to be performing poorly based on the results of our investigation.
- Given the shallow bedrock throughout the site area, it would likely require lining the entire pond area with an impermeable liner to significantly reduce seepage through the north dam. Lining only the upstream face of the dam, or even a portion of the pond bottom beyond the base of the dam would reduce seepage through the embankment, but not through the interface between the dam foundation and embankment, or through the underlying bedrock.
- It may be possible to install a curtain drain along the downstream toe of the existing embankment to capture some of the seepage and pump it either back into the pond, or into the existing drainage downstream of lots 71 and 72.
- The claim that seepage from the north dam is negatively impacting lots 71 and 72 is in our judgment, questionable. We did not observe obviously wet/saturated ground or standing water during our 4 site visits to lots 71 and 72. Although the ground in the backyard of lot 71 was observed to be quite damp and standing water was observed in an irrigation valve box, the dampness was not out of the ordinary for a well irrigated yard in shallow bedrock terrain.

Furthermore, as shown on Plate 2 of this report, and on the as-built drawings for the subdivision, both the current and pre-development topography in the vicinity of the north dam and adjacent lots slope toward a low area where lots 71 and 72 are located. The current topography in this area appears to drain portions of lots 69, 70 and 73 towards



lots 71 and 72. Given the shallow bedrock throughout the subdivision, it is likely that perched groundwater is present seasonally in many areas and such water will typically follow the surface topography (as will surface drainage). Over-irrigation in areas of shallow bedrock can also result in the presence of perched water; particularly where highly porous soils such as "DG" are present.

- Long-term measurement of the existing piezometers in the backyards of lots 71 and 72, possibly combined with the installation and measurement of additional piezometers further toward the fronts of the lots would help facilitate the development and calibration of a seepage model which could be utilized in a more rigorous evaluation of seepage from the north pond and dam.
- It is presumed that there was originally a drainage swale of some sort associated with the "meandering drainage easement" shown on the original subdivision plot plan to be located on the property boundary between lots 71 and 72. If so, it appears that the swale has been substantially filled in; at least in the backyard portions of the lots. The main purpose of the 12-inch-diameter CMP that appears to run along the property boundary between the lots is presumably to convey overflow from the 16-inch CMP that comes from the pond through the north dam. The inlets/outlets of these culverts should be free of debris, soil, etc. and the ability of the culverts to pass water freely checked.
- The dimensions and slope inclinations of the north dam appear to be quite different from those identified in the 1978 As-built drawing. Specifically, the crest appears to be wider, the slopes flatter, and the dam height lower than is indicated in the As-built. We also note that the overall depth of the north (upper) pond has been found to be somewhat less (~ 10 to 12 feet) than the depth of 17 feet shown on the as-built plan.

South Dam

The seepage and ground conditions in the south dam are judged to be very similar to those for the north dam based on the results of our field investigation and laboratory testing programs, and on our review of a field resistivity survey of the embankment performed by others (Shaw Environmental, Inc., 2006). Specifically, a layer of dark grey, loose, wet soil was found at what is believed to be the interface between the embankment and foundation. This material is likely original soil that was part of the pre-existing drainage swale which the dam crosses. The embankment above this layer appears to be relatively well compacted (though still below the 95 percent minimum relative compaction specified in the original plans).

No obvious signs of seepage or slope instability were observed on the downstream face or toe of the embankment. Seepage is judged to be occurring at or near the interface between the bedrock surface and the bottom of the embankment/soil portion of the foundation, similar to the conditions described above for the north dam. In summary, the south dam appears to be



performing adequately. The fact that the low point of the downstream toe of the embankment is located within an obvious drainage easement should reduce the potential for seepage in this area to negatively impact residential development.

LIMITATIONS

This report was prepared solely for the exclusive use of Hidden Lakes Estates Homeowners Association (the client) and their consultants for the proposed project described in this report. No other entity or person shall use or rely upon this report, or any of Paragon Geotechnical, Inc.'s work products, unless expressly authorized by us.

Our services consist of professional opinions and conclusions developed in accordance with generally accepted geotechnical engineering principles and practices. There is no other warranty, either expressed or implied. Our conclusions are based on the information provided to us regarding the as-built construction documents for the project, the results of our field investigation and laboratory testing programs, and professional judgment.

The exploratory boring logs represent subsurface conditions at the locations, and on the dates indicated. They are not warranted to be representative of subsurface conditions at other locations or at other times. Descriptions of site conditions and features presented in this report are those that existed at the time of our field exploration and they may differ at other times. The locations of our exploratory borings were established as part of a topographic survey performed by others (Hunter Surveying).

This report is considered valid for the proposed project for a period of 24 months from the report date provided that the site conditions and development plans remain unchanged. With the passage of time, changes in the conditions of a property can occur due to natural processes or the works of man on this or adjacent properties. Legislation or the broadening of knowledge may result in changes in applicable standards. In such a case, we should review this report to determine the applicability of the conclusions considering the time elapsed and/or changed conditions. The recommendations in this report are contingent upon such a review.

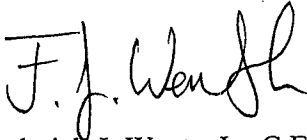
Our scope of services was limited to the proposed work described in this report, and did not address other items or areas. Our scope of services did not include environmental site assessments or an investigation of the presence or absence of hazardous, toxic or corrosive materials in the soil, surface water, ground water or air, on or below, or around the site. Our scope of services did not include an evaluation or investigation of the presence or absence of wetlands. Our scope of services did not include an evaluation or mitigation of the presence of mold at the site.

HLE EXHIBIT 16



We appreciate the opportunity to be of service to you. If you have any questions, or if we may be of further assistance, please call us at (530) 642-2281.

Sincerely,
PARAGON GEOTECHNICAL, INC.



Frederick J. Wentz, Jr., G.E.
Principal Engineer



Three (3) copies submitted via U.S. Mail

Attachments: References
Table of Groundwater Level Measurements
Plates 1 through 17

HLE EXHIBIT 16



REFERENCES

G W Consulting Engineers, 1978. Improvement Plans for Hidden Lakes Unit No. 2. Placer County, California. Sheets 1 through 12. Stamped "As Built" on June 28, 1978.

HTA Science & Engineering, Inc. (2006). 7884 Jon Way backyard shallow groundwater assessment associated with Hidden Lake berm. April 6.

Loyd, R.C., 1995. Mineral Land Classification of Placer County, California. Open-File Report 95-10. California Division of Mines and Geology.

Shaw Environmental, Inc., 2006. Draft – Geophysical Survey Report – Electrical Resistivity Imaging for Evaluating Earthen Dam Materials – Hidden Lakes Estates, Granite Bay, California. Revision 1, November 30.

HLE EXHIBIT 16



GROUNDWATER LEVEL MEASUREMENTS

Paragon Geotechnical Piezometers within/near North Dam

March 29 and 30, 2007 (during drilling)						
Boring	B1*	B1A	B2*	B2A	B3	B4
Depth to Groundwater Below Ground Surface/ Top of Casing (ft)	8.5	8.5	none	none	none	none
Approx. Groundwater Elevation (ft)**	463.2	463.2	N/A	N/A	N/A	N/A

*Backfilled after drilling

**Elevations used to calculate groundwater elevations taken from topographic survey performed by Hunter Surveying (2007)

April 10, 2007				
Boring	B1A	B2A	B3	B4
Depth to Groundwater Below Ground Surface/Top of Casing (ft)	5.2	4.5	4.1	4.3
Approx. Groundwater Elevation (ft)	466.5	466.6	466.9	466.6

April 17, 2007				
Boring	B1A	B2A	B3	B4
Depth to Groundwater Below Ground Surface/Top of Casing (ft)	5.1	4.5	3.9	4.2
Approx. Groundwater Elevation (ft)	466.6	466.6	467.1	466.7

May 9, 2007				
Boring	B1A	B2A	B3	B4
Depth to Groundwater Below Ground Surface/Top of Casing (ft)	4.8	4.7	4.3	4.3
Approx. Groundwater Elevation (ft)	466.9	466.4	466.7	466.6

July 2, 2007				
Boring	B1A	B2A	B3	B4
Depth to Groundwater Below Ground Surface/Top of Casing (ft)	4.9	4.7	4.2	4.3
Approx. Groundwater Elevation (ft)	466.8	466.4	466.8	466.6

July 30, 2007				
Boring	B1A	B2A	B3	B4
Depth to Groundwater Below Ground Surface/Top of Casing (ft)	4.5	4.8	4.1	3.8
Approx. Groundwater Elevation (ft)	467.2	466.3	466.9	467.1

HLE EXHIBIT 16



Paragon Geotechnical Piezometers within/near North Dam

January 14, 2008				
Boring	B1A	B2A	B3	B4
Depth to Groundwater Below Ground Surface/Top of Casing (ft)	4.3	4.4	3.6	3.9
Approx. Groundwater Elevation (ft)	467.4	466.7	467.4	467.0

February 15, 2008				
Boring	B1A	B2A	B3	B4
Depth to Groundwater Below Ground Surface/Top of Casing (ft)	4.6	4.7	4.0	4.3
Approx. Groundwater Elevation (ft)	467.1	466.4	467.0	466.6

March 13, 2008				
Boring	B1A	B2A	B3	B4
Depth to Groundwater Below Ground Surface/Top of Casing (ft)	4.7	4.6	4.0	4.3
Approx. Groundwater Elevation (ft)	467.0	466.5	467.0	466.6

April 13, 2008				
Boring	B1A	B2A	B3	B4
Depth to Groundwater Below Ground Surface/Top of Casing (ft)	4.7	4.5	4.0	4.2
Approx. Groundwater Elevation (ft)	467.0	466.6	467.0	466.7

HLE EXHIBIT 16



HTA Science & Engineering, Inc. Piezometers on Lots 71 and 72

March 29, 2007						
Boring	P1	P2	P3	P4	P5	MW1
Depth to Groundwater Below Ground Surface/ Top of Casing (ft)	6.5	4.5	2.4	5.0	3.3	1.0
Approx. Groundwater Elevation (ft)	465.8	465.9	465.0	465.1	466.1	464.7

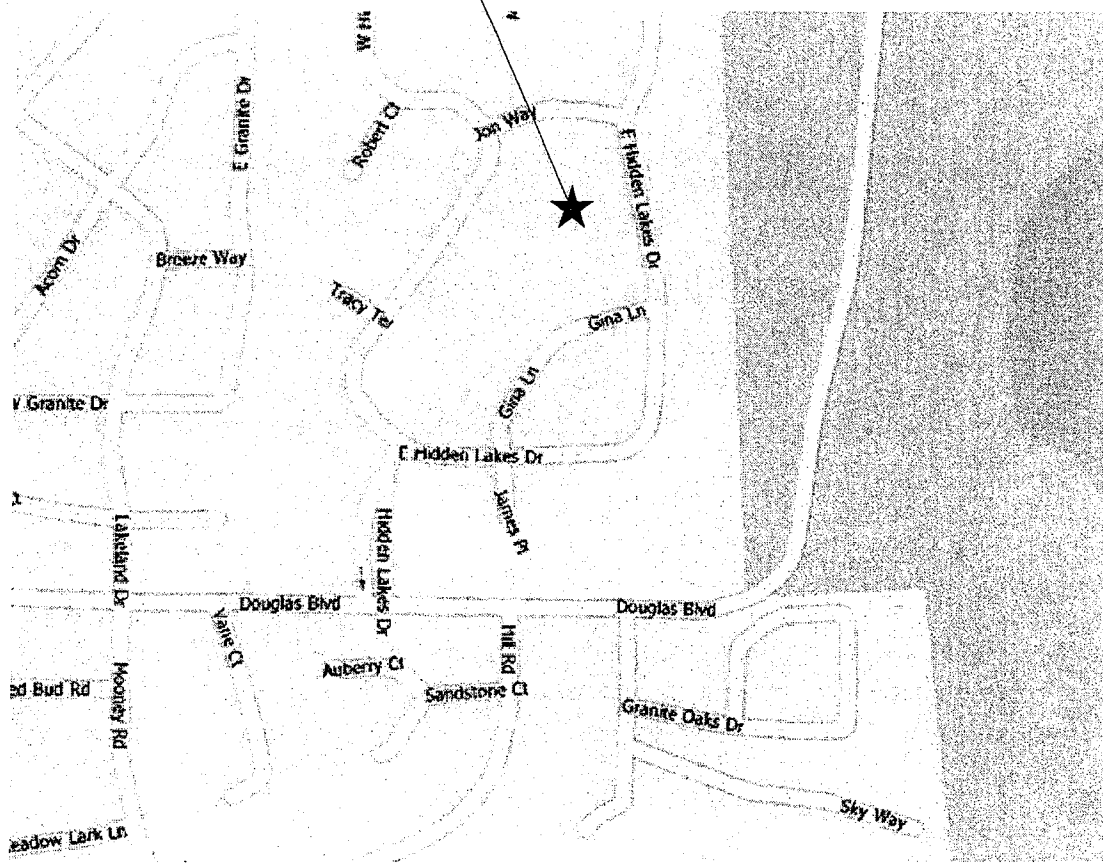
April 19, 2007						
Boring	P1	P2	P3	P4	P5	MW1
Depth to Groundwater Below Ground Surface/ Top of Casing (ft)	5.7	3.8	1.8	3.8	--	--
Approx. Groundwater Elevation (ft)	466.6	466.6	465.7	466.3	--	--

July 2, 2007						
Boring	P1	P2	P3	P4	P5	MW1
Depth to Groundwater Below Ground Surface/ Top of Casing (ft)	6.8	4.8	2.5	4.9	3.4	1.1
Approx. Groundwater Elevation (ft)	465.4	465.6	464.9	465.2	466.0	464.6

July 30, 2007						
Boring	P1	P2	P3	P4	P5	MW1
Depth to Groundwater Below Ground Surface/ Top of Casing (ft)	6.6	4.5	2.3	4.7	2.8	0.8
Approx. Groundwater Elevation (ft)	465.7	465.9	465.2	465.5	466.6	464.9



Site



Not to Scale

HLE EXHIBIT 16



Project No.: 1383-01-07
Reviewed: RW
Drawn: DD
Date: April 2008
















VICINITY MAP
Hidden Lakes Estates Pond Seepage
Evaluation
Granite Bay, California

PLATE
1










<p>B1 Approx. Boring Location (Paragon Geotech.)</p> <p>P1 / MW1 Approx. Piezometer / Monitoring Well Location (xxxxxxxxxxxx)</p>	<p> PARAGON GEOTECHNICAL CONSULTING ENGINEERS</p> <p>Project No.: 1383-01-07 Reviewed By: R. Wentz Drawn By: R. Church Date: 4/10/08</p>	<p>BORING LAYOUT PLAN Hidden Lakes Estates Pond Seepage Evaluation Granite Bay, California</p>	<p>PLATE 2</p>
---	---	---	--------------------

Base Map: Hidden Lakes Estates, Topographic Drainage Survey, Lots 69 - 73 prepared by Hunter Surveying, dated December 17, 2007


MAJOR DIVISIONS			TYPICAL NAMES	
COARSE GRAINED SOILS More Than Half > #200 Sieve	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW 	WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES
			GP 	POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES
		GRAVELS WITH OVER 12% FINES	GM 	SILTY GRAVELS, POORLY GRADED GRAVEL-SAND-SILT MIXTURES
			GC 	CLAYEY GRAVELS, POORLY GRADED GRAVEL-SAND-CLAY MIXTURES
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	CLEAN SANDS WITH LITTLE OR NO FINES	SW 	WELL GRADED SANDS, GRAVEL SAND-MIXTURES
			SP 	POORLY GRADED SANDS, GRAVEL-SAND MIXTURES
		SANDS WITH OVER 12% FINES	SM 	SILTY SANDS, POORLY GRADED SAND-SILT MIXTURES
			SC 	CLAYEY SANDS, POORLY GRADED SAND-CLAY MIXTURES
FINE GRAINED SOILS More Than Half < #200 Sieve	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50	ML 	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, OR CLAYEY SILTS WITH SLIGHT PLASTICITY	
		CL 	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS	
		OL 	ORGANIC CLAYS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50	MH 	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS	
		CH 	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS	
		OH 	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	
HIGHLY ORGANIC SOILS	Pt 	PEAT AND OTHER HIGHLY ORGANIC SOILS		

UNIFIED SOIL CLASSIFICATION SYSTEM













	Standard Penetration Test (1-3/8-inch I.D.)	UU-Tx	Unconsolidated Undrained Triaxial Shear
	Modified-California Sampler (2-inch I.D.)	UU-Tx Sat	Unconsolidated Undrained Triaxial Shear saturated prior to test
	California Sampler (2-1/2-inch I.D.)	CU-Tx	Consolidated Undrained Triaxial Shear
	Shelby Tube (3-inch I.D.)	UC	Unconfined Compressive Strength
	Bulk Sample	DS	Unconsolidated Undrained Direct Shear
	Water Level Measured At Time Of Drilling	Consol	Consolidation
	Water Level Measured After Specified Time	EI	Expansion Index
Rval	Rvalue Test	FS	Free Swell
SE	Sand Equivalent	Perm	Permeability
DI	Durability Index	MPC	Modified Proctor Compaction Curve
CE	Corrosivity Evaluation	SPC	Standard Proctor Compaction Curve

KEY TO TEST DATA

HLE EXHIBIT 16

 PARAGON GEOTECHNICAL CONSULTING ENGINEERS	Project No.: 1383-01-07 Reviewed by: R. Wentz Drawn by: R. Church Date: 4/16/08	SOIL BORING KEY Hidden Lakes Estates Pond Seepage Evaluation Granite Bay, California	PLATE 3
---	--	---	-------------------

ROCK SYMBOLS

	METAVOLCANIC ROCK		VOLCANIC ROCK		CLAYSTONE/SILTSTONE
	METASEDIMENTARY ROCK		MEHRTTEN FORMATION		SANDSTONE
	METAMORPHIC ROCK		RHYOLITE		CONGLOMERATE (COBBLE)
	PLUTONIC ROCK		GRANITIC ROCK		SHEARED ROCKS

LAYERING

VERY THICKLY BEDDED	Greater than 3 feet
THICKLY BEDDED	2 to 3 feet
THINLY BEDDED	2 inches to 2 feet
VERY THINLY BEDDED	1/2 to 2 inches
LAMINATED	1/10 to 1/2 inches
THINLY LAMINATED	Less than 1/10 inches

JOINT, FRACTURE, OR SHEAR SPACING

EXTREMELY WIDE SPACING	Greater than 6.6 feet
WIDE SPACING	2 to 6.6 feet
MODERATE SPACING	8 inches to 2 feet
CLOSE SPACING	2-1/2 to 8 inches
VERY CLOSE SPACING	3/4 to 2-1/2 inches
EXTREMELY CLOSE SPACING	Less than 3/4 inch

HARDNESS

SOFT - Reserved for plastic material alone.

LOW HARDNESS - Can be gouged deeply or carved with a pocket knife.

MODERATELY HARD - Can be readily scratched by a knife blade; scratch leaves heavy trace of dust and scratch is readily visible after the powder has been blown away.

HARD - Can be scratched with difficulty; scratch produces little powder and is often faintly visible.

VERY HARD - Cannot be scratched with pocket knife. Leaves knife steel marks on surface.

STRENGTH

FRIABLE - Easily crumbled by hand.

VERY WEAK - Brittle or tough, may be broken in the hand with difficulty. Can be peeled with a pocket knife.

WEAK - Material crumbles under firm blows with the sharp end of a geological hammer. Can be peeled with a pocket knife with difficulty.

MEDIUM STRONG - Specimen can be fractured with a single firm blow of a geological hammer. Cannot be scraped or peeled with a pocket knife.

STRONG - Specimen requires more than one blow of geological hammer to fracture it.

VERY STRONG - Specimen requires many blows of geological hammer to fracture it.

EXTREMELY STRONG - Specimen can only be chipped with geological hammer.

DEGREE OF WEATHERING

COMPLETELY WEATHERED - The original minerals of the rock have been almost entirely changed to secondary minerals, even though the original fabric may be intact. The material can be easily broken.

HIGHLY WEATHERED - More than half the rock material is decomposed or altered. Fresh rock is present in a discontinuous framework or as corestones.

MODERATELY WEATHERED - Less than half of the rock material is decomposed or altered. Fresh or discolored rock is present either as a continuous framework or as corestones. Rock is discolored and noticeably weakened.

SLIGHTLY WEATHERED - Rock is slightly discolored, but not noticeably lower in strength than fresh rock.

FRESH - Rock shows no discoloration, no loss of strength, or any other effect of weathering.



Project No.: 1483-01-07
 Reviewed by: R. Wentz
 Drawn by: R. Church
 Date: 4/16/08

**ENGINEERING GEOLOGY
 ROCK TERMS**

Hidden Lakes Estates Pond Seepage Evaluation
 Granite Bay, California

PLATE

4

MATERIAL DESCRIPTION

MATERIAL DESCRIPTION	Depth	USCS Classification	Graphic Log	Sample Type	Sample Number	Blows/6"	N Value*	Water Content (%)	Dry Density (pcf)	% Sand	% Passing No. 200 Sieve
Light orange-brown silty sand (SM), moist, medium dense, fine to coarse, FILL.	0 - 1	SM		CA	1	10					
	1 - 2			15	30	8.0	121.7	20.6			
	2 - 3			15	8						
	3 - 4			SS	2	12	27	8.4	71.4	22.9	
Light gray clayey sand (SC), moist, medium dense, fine to coarse. B1-3-2: permeability 7.0E-7 cm/sec. 1.5-inch rock in sampler shoe. FILL.	4 - 5	SC		CA	3	4					
	5 - 6			6	12	10.1	120.2	69.3	28.1		
	6 - 7			6	6						
	7 - 8			SS	4	7	26				
-- FILL --	8 - 9					19					
Granitic rock, completely weathered, friable, white and rust-brown. Becomes dark orange-brown. As above.	9 - 10	N/A		CA	5	3					
	10 - 11			8	50+						
	11 - 12			33/5"							
	12 - 13			SS	6	10/0"	50+				
Boring terminated (refusal).	13 - 14										
	14 - 15										
	15 - 16										
	16 - 17										
	17 - 18										
	18 - 19										
	19 - 20										

Start Date: 3/29/07	Finish Date: 3/29/07	Comments: Backfilled with cement grout. **Existing ground at time of drilling.
Drilling Method: 6-inch Hollow Stem Auger	Drilling Contractor: Cal Nev Geoexploration	
Drill Rig: CME-45	Hammer Type: 140 lb. Automatic	
Logged By: D. Dean	Reviewed By: R. Wentz	
Elevation: 471.7 ft **		* Converted to equivalent standard penetration blow counts.

383-01-07 LOGS.GPJ SOIL BORING.GDT 4/16/08



Project No.: 1383-01-07
 Reviewed by: R. Wentz
 Drawn by: R. Church
 Date: 4/16/2008

LOG OF BORING B1
 Hidden Lakes Estates Pond Seepage Evaluation
 Granite Bay, California

PLATE
 5

PG COMMON 1 383-01-07 LOGS.GPJ SOIL BORING.GDT 4/16/08

MATERIAL DESCRIPTION	Depth	USCS Classification	Graphic Log	Sample Type	Sample Number	Blows/6"	N Value*
Light orange-brown silty sand (SM).	0 - 4	SM		BK	A		
Light gray sandy clay (SC).	4 - 10	SC		BK	B		
Granitic rock.	10 - 15	N/A					
Boring terminated.	15 - 20						

Start Date: 3/30/07	Finish Date: 3/30/07
Drilling Method: 8-inch Hollow Stem Auger	Drilling Contractor: Cal Nev Geoexploration
Drill Rig: CME-45	Hammer Type: 140 lb. Automatic
Logged By: D. Dean	Reviewed By: R. Wentz
Elevation: 471.7 ft**	

Comments: Piezometer installed. Screened interval from 11 feet to 15 feet.
 **Top of piezometer casing.

* Converted to equivalent standard penetration blow counts.



Project No.: 1383-01-07
 Reviewed by: R. Wentz
 Drawn by: R. Church
 Date: 4/16/2008

LOG OF BORING B1A
 Hidden Lakes Estates Pond Seepage Evaluation
 Granite Bay, California

PLATE
 6

HLE EXHIBIT 16

PG COMMON V 383-01-07 LOGS.GPJ SOIL BORING.GDT 4/16/08

MATERIAL DESCRIPTION	Depth	USCS Classification	Graphic Log	Sample Type	Sample Number	Blows/6"	N Value*	Water Content (%)	% Sand	% Passing No. 200 Sieve
Light orange-brown silty sand (SM), moist, dense, fine to coarse, FILL.	0 - 1									
Becomes medium dense.	1 - 2	SM		CA	1	12	31	8.2	75.0	22.7
	2 - 3			SS	2	11				
-- FILL --	3 - 4									
Light gray clayey sand (SC), moist, medium dense.	4 - 5									
	5 - 6	SC		CA	3	5	17	17.0	70.6	28.4
	6 - 7			SS	4	1				
Black silty sand (SM), wet, very loose, contains organics, and possible burn material.	7 - 8									
	8 - 9	SM		CA	5	33/5.5"	50+			
	9 - 10			SS	4	1	2			
Granitic rock, completely to highly weathered, friable, light orange-brown.	10 - 11	N/A		CA	5	33/5.5"	50+			
Boring terminated.	11 - 20									

Start Date: 3/29/07	Finish Date: 3/29/07
Drilling Method: 6-inch Hollow Stem Auger	Drilling Contractor: Cal Nev Geoexploration
Drill Rig: CME-45	Hammer Type: 140 lb. Automatic
Logged By: D. Dean	Reviewed By: R. Wentz
	Elevation: 471.3 ft **

Comments: No groundwater encountered. Backfilled with cement grout.
 **Existing ground at time of drilling.

* Converted to equivalent standard penetration blow counts.

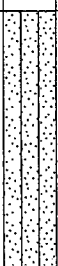



Project No.: 1383-01-07
 Reviewed by: R. Wentz
 Drawn by: R. Church
 Date: 4/16/2008

LOG OF BORING B2
 Hidden Lakes Estates Pond Seepage Evaluation
 Granite Bay, California

PLATE
 7

PG COMMON W. 383-01-07 LOGS.GPJ SOIL BORING.GDT 4/16/08

MATERIAL DESCRIPTION	Depth	USCS Classification	Graphic Log	Sample Type	Sample Number	Blows/6"	N Value*
Light orange-brown silty sand (SM).	0 1 2 3	SM					
Light gray clayey sand (SC).	4 5 6 7	SC					
Boring terminated.	8 9 10 11 12 13 14 15 16 17 18 19 20						

Start Date: 3/30/07	Finish Date: 3/30/07
Drilling Method: 8-inch Hollow Stem Auger	Drilling Contractor: Cal Nev Geoporation
Drill Rig: CME-45	Hammer Type: 140 lb. Automatic
Logged By: D. Dean	Reviewed By: R. Wentz
Elevation: 471.1 ft **	

Comments: No groundwater encountered. Piezometer installed. Screened interval from 5 feet to 8 feet.
**Top of piezometer casing.

* Converted to equivalent standard penetration blow counts.



Project No.: 1383-01-07
 Reviewed by: R. Wentz
 Drawn by: R. Church
 Date: 4/16/2008




LOG OF BORING B2A
 Hidden Lakes Estates Pond Seepage Evaluation
 Granite Bay, California

PLATE
 8

HLE EXHIBIT 16

PG COMMON W/ 133-01-07 LOGS.GPJ SOIL BORING.GDT 4/16/08

MATERIAL DESCRIPTION

MATERIAL DESCRIPTION	Depth	USCS Classification	Graphic Log	Sample Type	Sample Number	Blows/6"	N Value*	Water Content (%)	Dry Density (pcf)	% Sand	% Passing No. 200 Sieve
Light brown silty sand (SM), moist, loose, fine to medium, FILL.	0	SM									
-- FILL --	1					3					
Dark brown silty sand (SM), moist, loose, fine to coarse, few small roots.	1			CA	1	3	8	11.1	112.0	71.0	27.8
Becomes light orange-brown.	2	SM				5					
Becomes dense.	3			SS	2	17	49	12.2			26.4
Granitic rock, completely weathered, friable, light orange-brown.	4					32					
As above.	5	N/A		CA	3	18	50+	5.4	115.4	89.8	8.8
B3-3-1: permeability 8.0E-4 cm/sec.	5					33 1/2"					
Boring terminated (refusal).	6										
	7										
	8										
	9										
	10										
	11										
	12										
	13										
	14										
	15										
	16										
	17										
	18										
	19										
	20										

Start Date: 3/29/07	Finish Date: 3/29/07
Drilling Method: 6-inch Hollow Stem Auger	Drilling Contractor: Cal Nev Geoexploration
Drill Rig: CME-45	Hammer Type: 140 lb. Automatic
Logged By: D. Dean	Reviewed By: R. Wentz
	Elevation: 471.0 ft **

Comments: No groundwater encountered. Piezometer installed. Screened interval from 4 feet to 6feet.
**Top of piezometer casing.

* Converted to equivalent standard penetration blow counts.



Project No.: 1383-01-07
Reviewed by: R. Wentz
Drawn by: R. Church
Date: 4/16/2008

LOG OF BORING B3
Hidden Lakes Estates Pond Seepage Evaluation
Granite Bay, California

PLATE
9

HLE EXHIBIT 16

PG COMMON W 83-01-07 LOGS.GPJ SOIL BORING.GDT 4/16/08

MATERIAL DESCRIPTION	Depth	USCS Classification	Graphic Log	Sample Type	Sample Number	Blows/6"	N Value*	Water Content (%)	% Passing No. 200 Sieve
Light orange-brown silty sand (SM) with gravel to 2-inches, moist, loose, fine to coarse, FILL.	0								
-- FILL --	1	SM		CA	1	4			
Dark gray silty sand (SM), moist, loose, fine to coarse.	2					3	7		
	3					4			
	4	SM		SS	2	1		14.7	30.8
	5					3			
Dark green to light green-brown silty sand (SM), moist, loose, fine to coarse.	6			CA	3	4	14		
Granitic rock, completely weathered, friable, orange-brown.	7					10			
	8			SS	4	12			
Becomes light gray.	9					16	49		
	10	N/A				33			
Boring terminated.	11								
	12								
	13								
	14								
	15								
	16								
	17								
	18								
	19								
	20								

Start Date: 3/29/07	Finish Date: 3/29/07
Drilling Method: 6-inch Hollow Stem Auger	Drilling Contractor: Cal Nev Geoexploration
Drill Rig: CME-45	Hammer Type: 140 lb. Automatic
Logged By: D. Dean	Reviewed By: R. Wentz
	Elevation: 470.9 ft **

Comments: No groundwater encountered. Piezometer installed. Screened interval from 7.3 feet to 10 feet. **Top of piezometer casing.

* Converted to equivalent standard penetration blow counts.



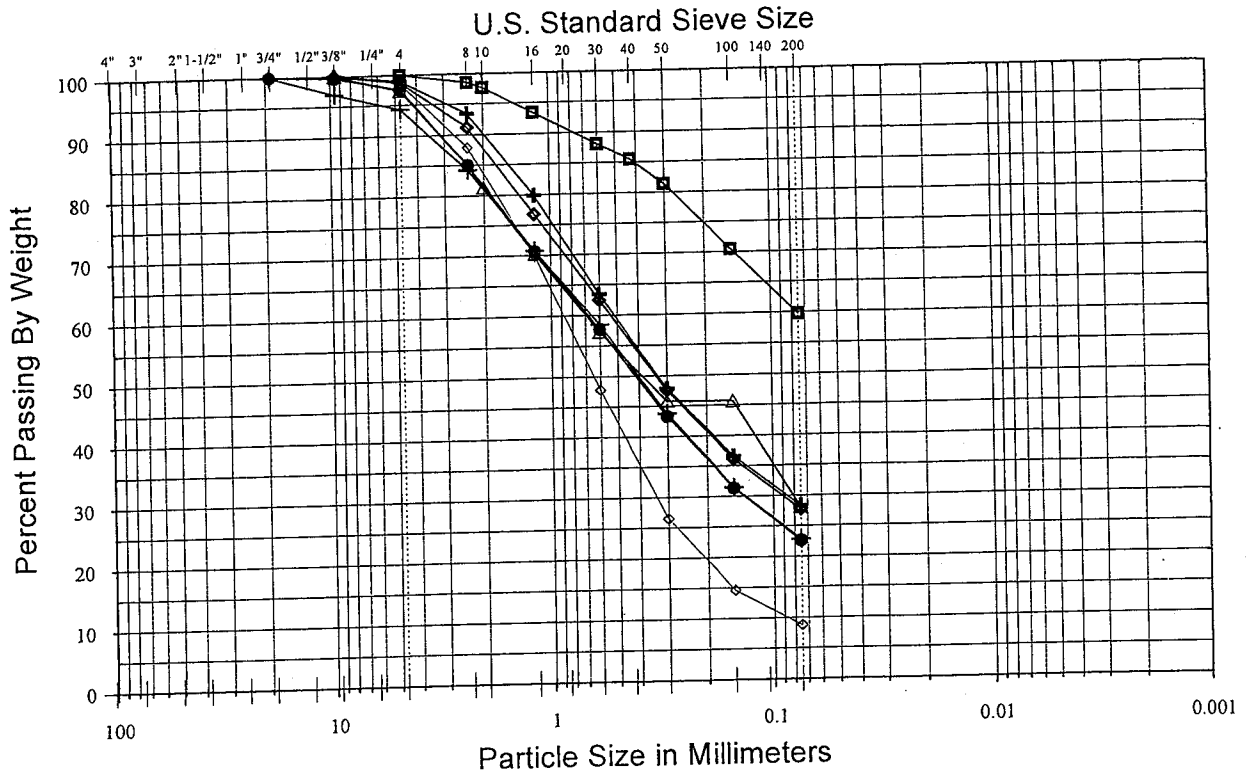
Project No.: 1383-01-07
 Reviewed by: R. Wentz
 Drawn by: R. Church
 Date: 4/16/2008

LOG OF BORING B4
 Hidden Lakes Estates Pond Seepage Evaluation
 Granite Bay, California

PLATE
 10

Particle-Size Distribution

COBBLES	GRAVEL				SAND			SILT OR CLAY
	COARSE	FINE		COARSE	MEDIUM	FINE		



- +—+—+ Sample B1-2 2.5 - 4.0 ft
- △—△—△ Sample B1-3-2 6.0 - 6.5 ft
- Sample B2-2 2.5 - 4.0 ft
- +—+—+ Sample B2-4 6.5 - 8.0 ft
- ◇—◇—◇ Sample B3-1-1 1.5 - 2.0 ft
- Sample B3-3-1 5.0-5.5 ft

1383-01-07 Lab Grad.GRF with gsa.xls, gradation.xls 04/16/08/ ffw



Project No.: 1383-01-07
Reviewed: RW
Drawn: RC
Date: May 2007

PARTICLE SIZE DATA

Hidden Lakes Estates Pond
Seepage Evaluation
Granite Bay, California

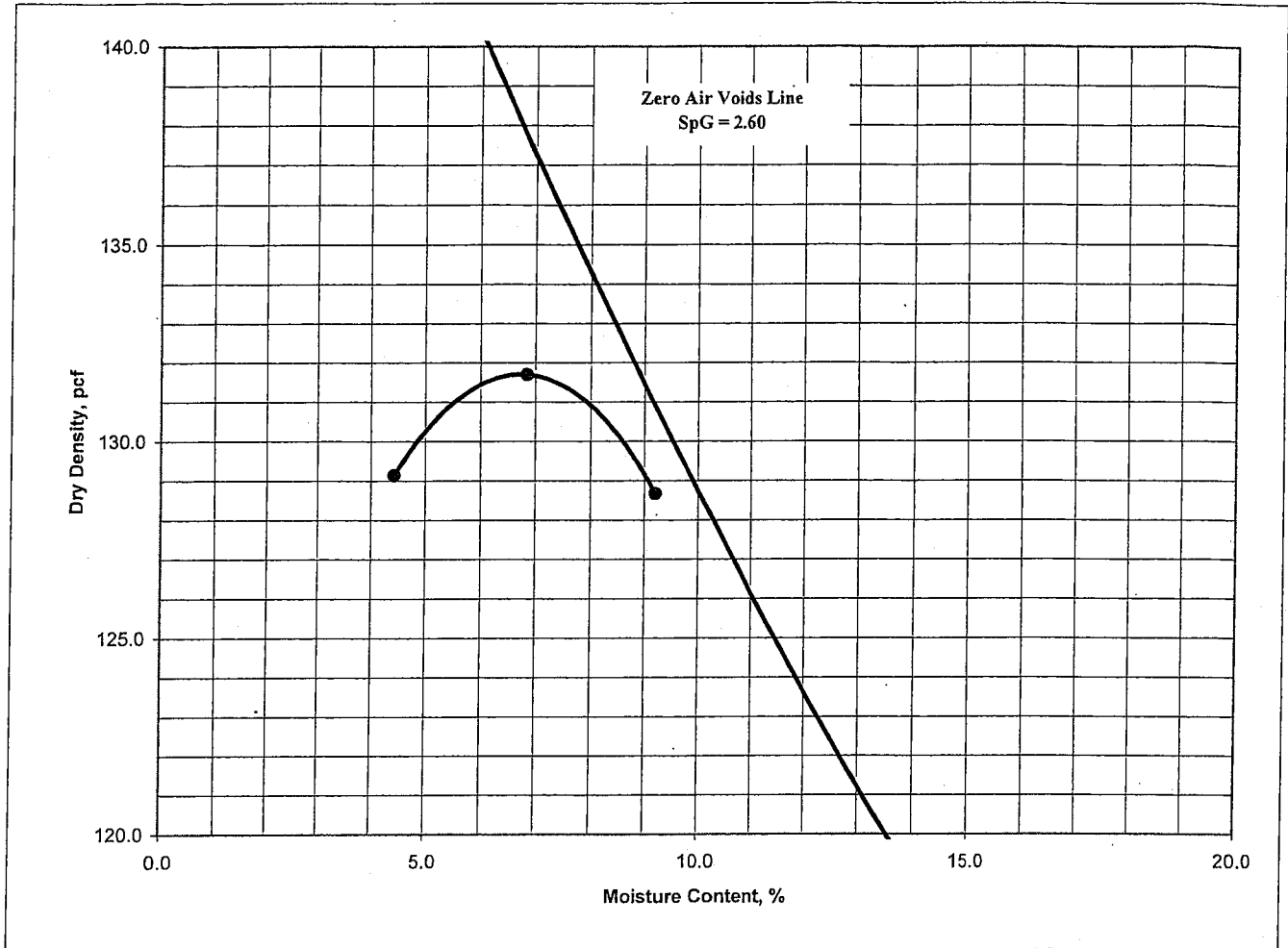
PLATE

11

HLE EXHIBIT 16

MOISTURE DENSITY RELATIONSHIP CURVE

ASTM D 1557, Method A



TESTING DATA

	1	2	3	4	5
Moisture (%)	4.4	6.9	9.2	0.0	0.0
Dry Density (pcf)	129.1	131.7	128.7	0.0	0.0

Assumed SpG: 2.60

Maximum Dry Density = 131.5 pcf
Optimum Moisture Content = 6.5 %

Curve No.: 1

Sample Location: Boring B1A 0.5 ft - 2.5 ft

Sample No. : Bulk A

Sample Desc.: Light brown silty sand

Sample Source: Auger Cuttings


PARAGON GEOTECHNICAL
CONSULTING ENGINEERS

Project No.: 1383-01-07
 Reviewed: RW
 Drawn: RC
 Date: 4/18/2007

LABORATORY COMPACTION
DATA
 Hidden Lakes Estates Pond Seepage
 Evaluation
 Granite Bay, CA

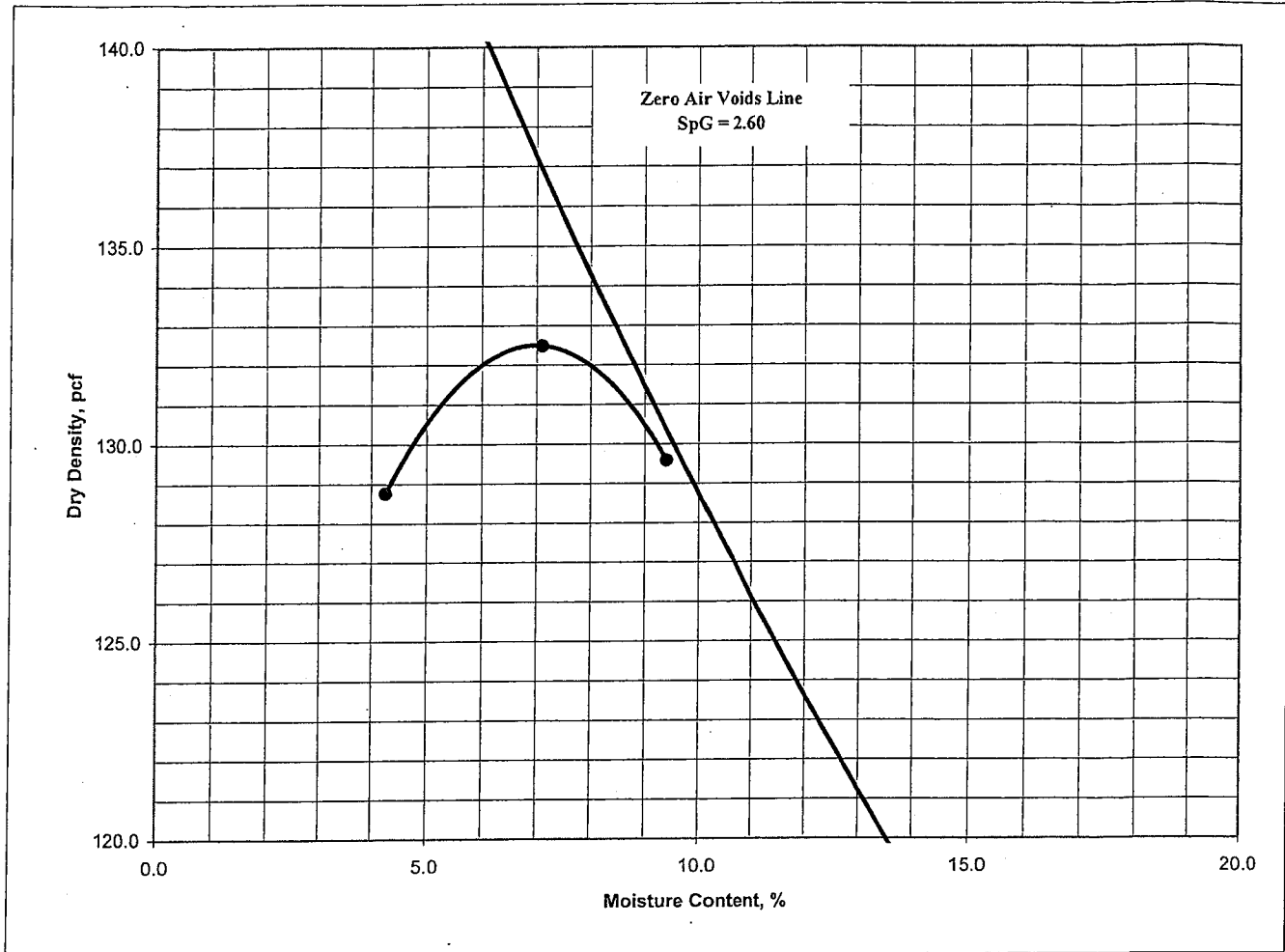
PLATE

12

HLE EXHIBIT 16

MOISTURE DENSITY RELATIONSHIP CURVE

ASTM D 1557, Method A



TESTING DATA

	1	2	3	4	5
Moisture (%)	4.3	7.1	9.4	0.0	0.0
Dry Density (pcf)	128.8	132.5	129.6	0.0	0.0

Assumed SpG: 2.60

Maximum Dry Density = 132.5 pcf
Optimum Moisture Content = 7.0 %

HLE EXHIBIT 16

Curve No.: 2

Sample Location: Boring B1A 4 ft - 5.5 ft

Sample No. : Bulk B

Sample Desc.: Light brown silty sand

Sample Source: Auger Cuttings



Project No.: 1383-01-07
 Reviewed: RW
 Drawn: RC
 Date: 4/18/2007

**LABORATORY COMPACTION
DATA**
 Hidden Lakes Estates Pond Seepage
 Evaluation
 Granite Bay, CA

PLATE

13

SAMPLE DATA

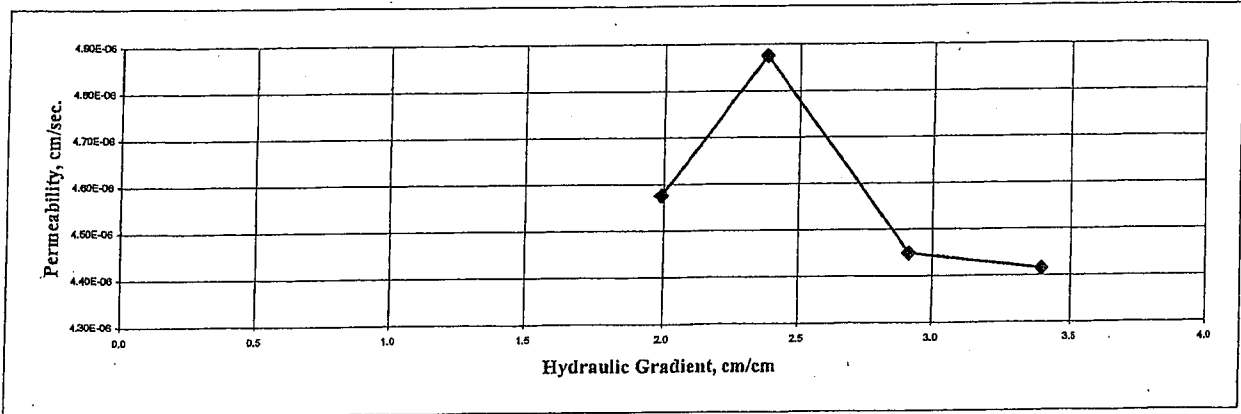
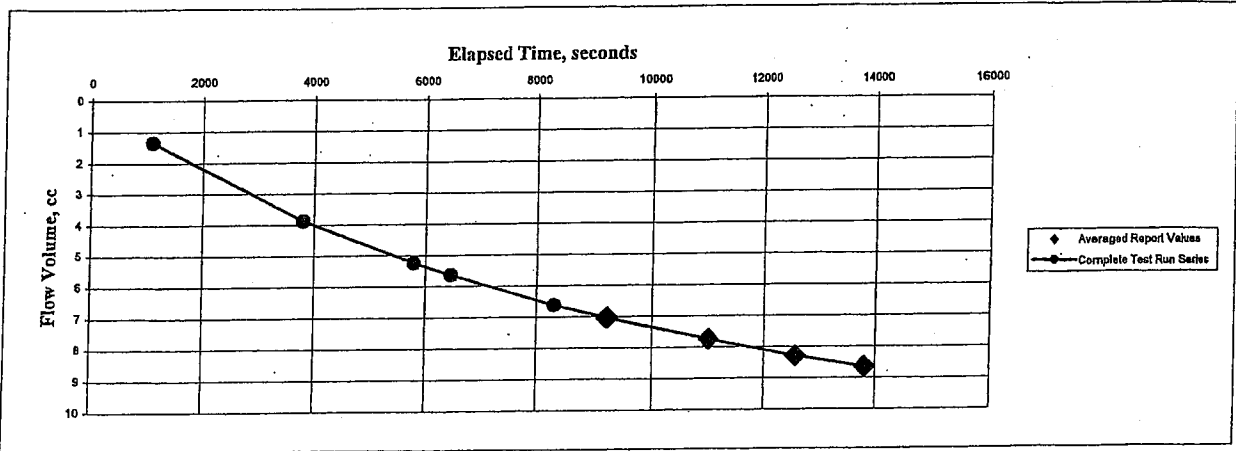
Sample Identification: B1A Bulk B Sample Depth, ft.: 4-5.5
 Visual Description: B1A Bulk B Sample Type: Remold
 Remarks: Remolded to 120pcf at 8.0% MC

TEST RESULTS

Permeability, cm/sec.: 4.58E-06 Average Hydraulic Gradient: 2.7
 Effective Cell Pressure, psi: 5.21

TEST SAMPLE DATA

<u>Before Test</u>	<u>After Test</u>
Specimen Height, cm: 7.62	Specimen Height, cm:
Specimen Diameter, cm: 6.17	Specimen Diameter, cm:
Dry Unit Weight, pcf: 119.9	Dry Unit Weight, pcf:
Moisture Content, % 8.0	Moisture Content, %
Specific Gravity, Assumed	
Percent Saturation:	



HLE EXHIBIT 16

Test Method: ASTM D 5856



Project No.: 1383-01-07
 Reviewed: RW
 Drawn: MW
 Date: May 2007

**LABORATORY HYDRAULIC
CONDUCTIVITY TEST DATA**
 Hidden Lakes Estates Pond
 Seepage Evaluation
 Granite Bay, California

PLATE
14

SAMPLE DATA

Sample Identification: B1-3-2
 Visual Description: B1-3-2
 Remarks:

Sample Depth, ft.: 6-6.5
 Sample Type: Sample Liner

TEST RESULTS

Permeability, cm/sec.: 6.97E-07

Average Hydraulic Gradient: 4.0

Effective Cell Pressure, psi: 5.21

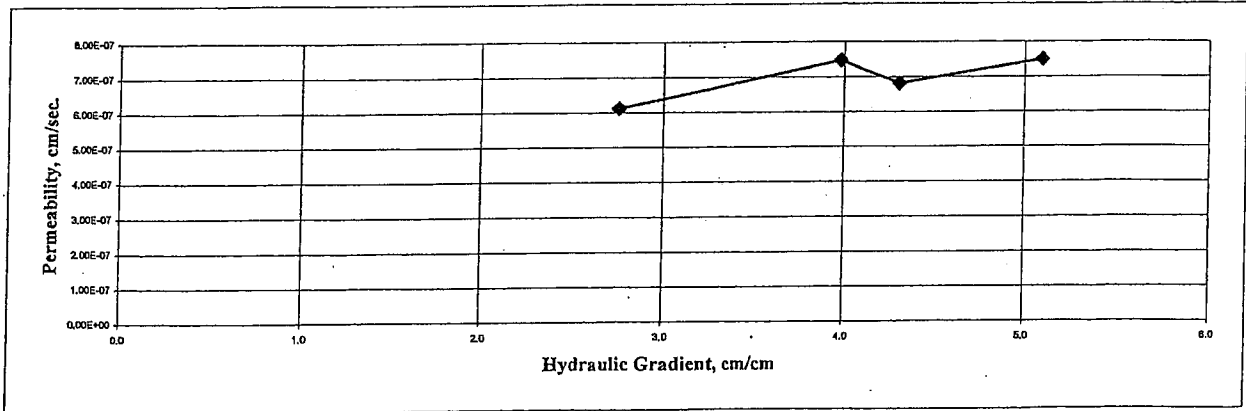
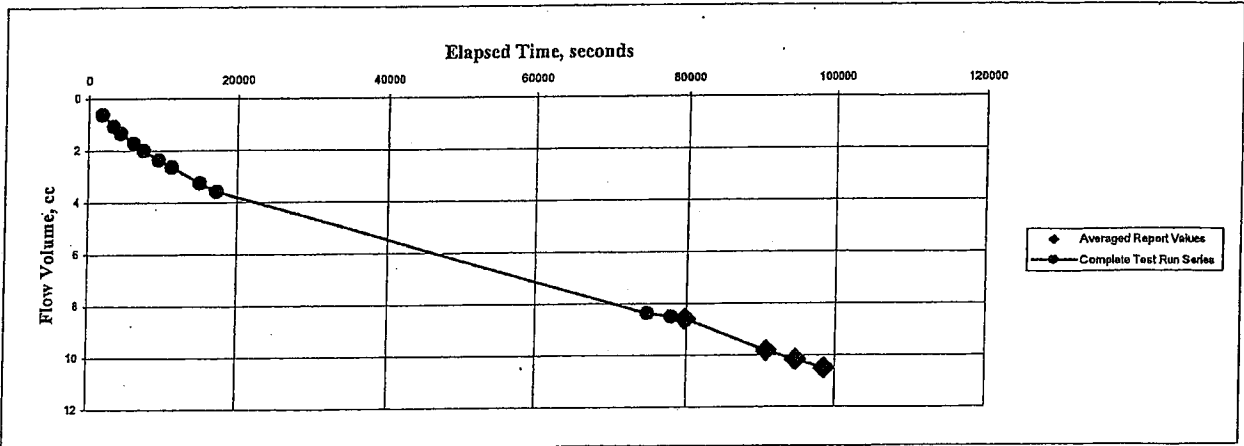
TEST SAMPLE DATA

Before Test

Specimen Height, cm: 6.91
 Specimen Diameter, cm: 6.12
 Dry Unit Weight, pcf: 120.2
 Moisture Content, % 10.1
 Specific Gravity, Assumed
 Percent Saturation:

After Test

Specimen Height, cm: 6.73
 Specimen Diameter, cm: 6.12
 Dry Unit Weight, pcf: 128.7
 Moisture Content, % 12.9



HLE EXHIBIT 16

Test Method: ASTM D 5856



Project No.: 1383-01-07
 Reviewed: RW
 Drawn: MW
 Date: May 2007

**LABORATORY HYDRAULIC
CONDUCTIVITY TEST DATA**
 Hidden Lakes Estates Pond
 Seepage Evaluation
 Granite Bay, California

PLATE
15

SAMPLE DATA

Sample Identification: B3-3-1
 Visual Description: B3-3-1
 Remarks:

Sample Depth, ft.: 5-5.5
 Sample Type: Sample Liner

TEST RESULTS

Permeability, cm/sec.: 7.99E-04

Average Hydraulic Gradient: 4.4

Effective Cell Pressure, psi: 17.36

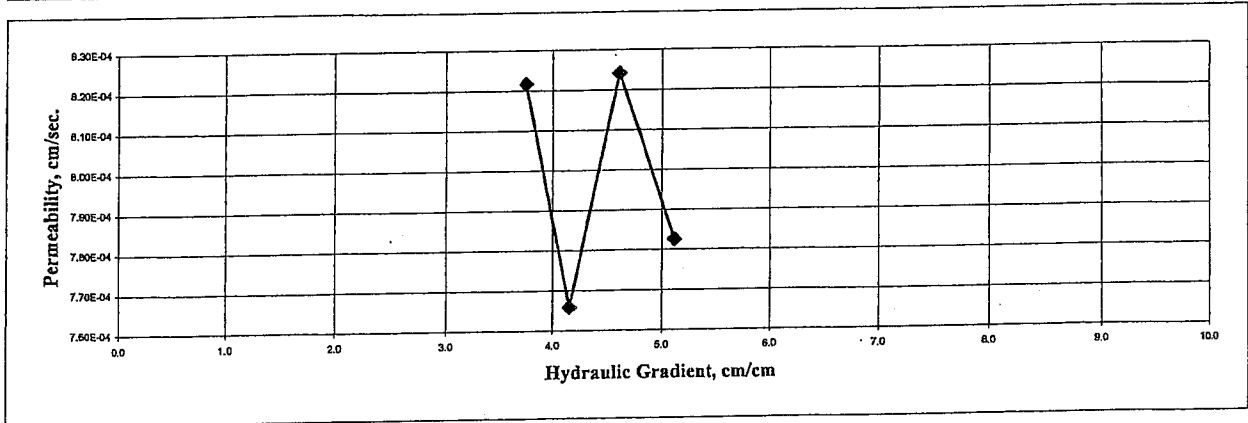
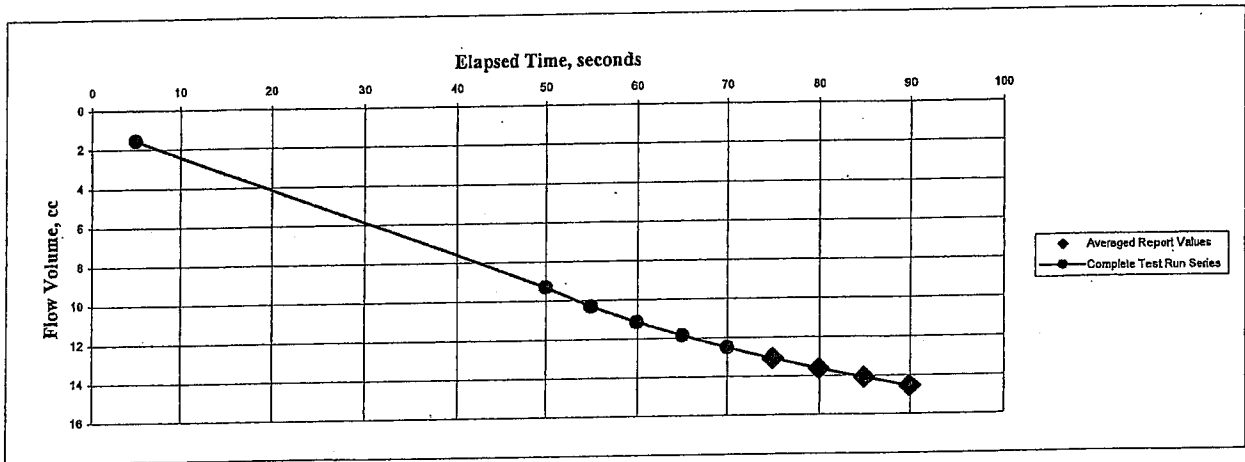
TEST SAMPLE DATA

Before Test

Specimen Height, cm: 8.13
 Specimen Diameter, cm: 6.10
 Dry Unit Weight, pcf: 115.4
 Moisture Content, % 5.4
 Specific Gravity, Assumed
 Percent Saturation:

After Test

Specimen Height, cm: 7.49
 Specimen Diameter, cm: 6.10
 Dry Unit Weight, pcf: 105.7
 Moisture Content, % 16.7



HLE EXHIBIT 16

Test Method: ASTM D 5856

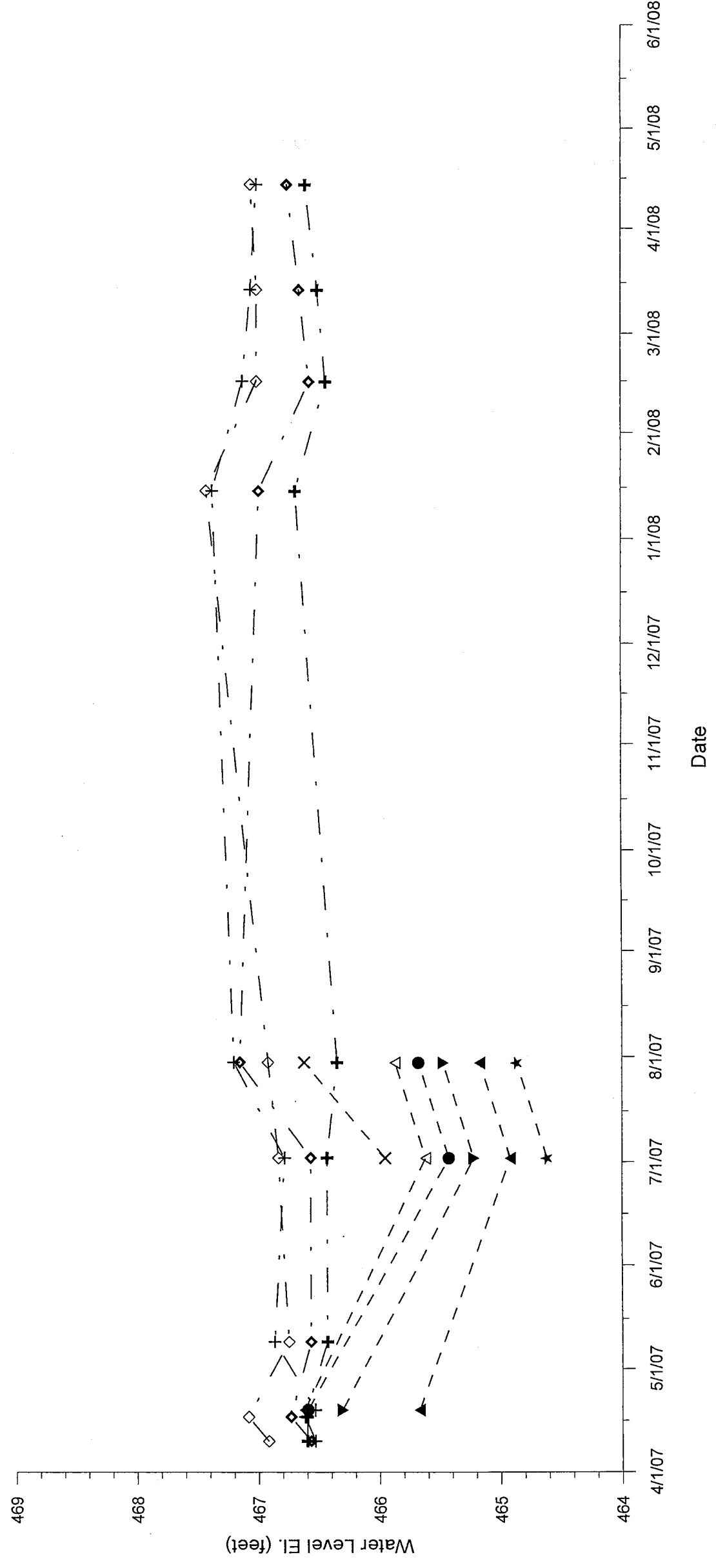


Project No.: 1383-01-07
 Reviewed: RW
 Drawn: MW
 Date: May 2007


**LABORATORY HYDRAULIC
CONDUCTIVITY TEST DATA**
 Hidden Lakes Estates Pond
 Seepage Evaluation
 Granite Bay, California

PLATE
16

+	+	+	B1A - Paragon Geotechnical
+	+	+	B2A - Paragon Geotechnical
◇	◇	◇	B3 - Paragon Geotechnical
◇	◇	◇	B4 - Paragon Geotechnical
●	●	●	P1 - HTA Lot 71
△	△	△	P2 - HTA Lot 71
▲	▲	▲	P3 - HTA Lot 71
▼	▼	▼	P4 - HTA Lot 71
X	X	X	P5 - HTA Lot 72
★	★	★	MW 1 - HTA Lot 71



HLE EXHIBIT / 6

 PARAGON GEOTECHNICAL CONSULTING ENGINEERS	Project No.: 1383-01-07 Reviewed: DD Drawn: RW Date: May 2008	PIEZOMETER READINGS Hidden Lakes Estates Pond Seepage Evaluation Granite Bay, California	PLATE 17
--	--	--	--------------------