

STATE OF
COLORADO

Gibson - DNR, Amber <amber.gibson@state.co.us>

Adequacy Review, TR1, Everhart Pit, M-1997-081

Ayoub, Abdel <karima@pueblounty.us>

Mon, Nov 6, 2023 at 1:57 PM

To: "Gibson - DNR, Amber" <amber.gibson@state.co.us>

Cc: "Bowles - DNR, Brock" <brock.bowles@state.co.us>, "Jimenez-Garcia, Dominga" <jimenezdo@pueblounty.us>

Good afternoon Amber,

Kindly find attached a memorandum from Pueblo County to serve as the statement reflecting our stance that no ground water will be affected as a result of the proposed mining plan.

Let me know if this is sufficient.

Regards,

A. Karim Ayoub, PMP

Project Manager

[Quoted text hidden]



Memo_Everhart Pit, M-1997-081.pdf

226K



STATE OF
COLORADO

Gibson - DNR, Amber <amber.gibson@state.co.us>

Adequacy Review, TR1, Everhart Pit, M-1997-081

Gibson - DNR, Amber <amber.gibson@state.co.us>

Mon, Nov 6, 2023 at 2:10 PM

To: "Ayoub, Abdel" <karima@pueblounty.us>

Cc: "Bowles - DNR, Brock" <brock.bowles@state.co.us>, "Jimenez-Garcia, Dominga" <jimenezdo@pueblounty.us>

Good afternoon,

Please confirm that the information in the currently approved Exhibit G of the permit package is still correct, and that the memorandum supplied in your last email is an addition to the exhibit, rather than a complete revision.

Thank you,

Amber

Amber Gibson (*formerly Michels*)
Environmental Protection Specialist



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

P 720.836.0967 | F 303.832.8106 |
amber.gibson@state.co.us

Mailing: DRMS Room 215, 1001 E 62nd Ave, Denver, CO 80216

Physical: 1313 Sherman Street, Room 215, Denver, CO 80203

<https://drms.colorado.gov/>

[Quoted text hidden]



STATE OF
COLORADO

Gibson - DNR, Amber <amber.gibson@state.co.us>

Adequacy Review, TR1, Everhart Pit, M-1997-081

Ayoub, Abdel <karima@pueblounty.us>

Mon, Nov 6, 2023 at 2:14 PM

To: "Gibson - DNR, Amber" <amber.gibson@state.co.us>

Cc: "Bowles - DNR, Brock" <brock.bowles@state.co.us>, "Jimenez-Garcia, Dominga" <jimenezdo@pueblounty.us>

Amber,

We confirm that the memorandum supplied in your last email is an addition to the exhibit, not to be construed as a complete revision.

[Quoted text hidden]



PUEBLO COUNTY

C O L O R A D O

Engineering and Public Works Department

Tanis A. Manseau
Director

MEMORANDUM

TO: Department of Natural Resources, Colorado

FROM: Abdel Karim Ayoub, Project Manager (Pueblo County Public Works)

DATE: October 31, 2023

RE: Statement for Exhibit G – No affected ground water pursuant to Rule 6.4.7 (1)

To whom it may concern,

The mining plan in question being submitted by Pueblo County is not affected to directly affect the surface or groundwater systems surrounding it. Referencing the attached document titled *Gravel Pit Investigation – Everhart Pit* by CTL Thompson, Groundwater was not encountered in any of the 5 borings carried out (Pg 1, Section INVESTIGATIONS).

In Figure 2 (page 5) of the document, which contains the Summary logs of Exploratory Borings, the notes indicate that, at no point, was groundwater encountered during the investigations. This, taking into consideration that one of the bores went as deep as 40 feet (which is lower than Pueblo County will seek to extract the mineral from).

There are no surface water on site (neither streams, rivers or other seasonal features) that would be directly affected by the mineral extraction activities.

Regards,

Abdel Karim Ayoub, PMP

Engineering Project Manager

September 19, 2023

Pueblo County
33601 United Avenue, Room 204
Pueblo, Colorado 81001

Attn: A. Karim Ayoub, PMP

Subject: Gravel Pit Investigation
Everhart Pit
Pueblo, Colorado
CTL|T Project No. SC03657-125

As requested, we investigated subsurface conditions at the Everhart Pit site located on Siloam Road in Pueblo, Colorado (Fig. 1). Our purpose was to determine the depth and thickness of the gravel deposit and evaluate the possibility that mining of the gravel could expose the groundwater.

SITE CONDITIONS

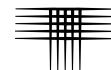
The site of the Everhart Pit is located approximately 0.7 miles west of Siloam Road and Pope Valley Ranch Road in Pueblo, Colorado. The site is bordered by undeveloped land. The floor of the pit is generally level and contains a stockpile of material in the southwest. Unmined areas containing grass and shrubs are present on the eastern portion of the site. The western and northern portions of the site slope to the floor of the pit.

INVESTIGATION

Subsurface conditions were explored by drilling five exploratory borings within the Everhart Pit (Fig. 1). The borings were advanced to depths between 15.5 and 39 feet using a 4-inch diameter, continuous-flight auger and a truck-mounted drill rig. Practical auger drilling refusal was encountered on very hard bedrock at depths of 15.5 feet, 39 feet, and 16 feet in TH-1, TH-2, and TH-5, respectively. Our field representative observed drilling, logged the conditions encountered in the borings, and obtained samples. Graphical logs of the borings, including the results of field penetration resistance tests and some laboratory test data, are presented in the Summary Logs of Exploratory Borings (Fig. 2).

Soil samples obtained during drilling were returned to our laboratory and visually classified. Laboratory testing was then assigned and included moisture content and gradation. Results of the laboratory tests are presented in Figs. 3 through 8 and are summarized in Table 1.

Groundwater was not encountered in our borings. Water levels should be expected to fluctuate in response to seasonal precipitation and irrigation of landscaping. Figure 2 presents the graphical log of the conditions found.



SUBSURFACE CONDITIONS

Surface and subsurface soils found in our borings consist of predominately sand with varying amounts of gravel and localized clay soils, underlain by claystone and shale bedrock. The clay soils were encountered in TH-2. This boring is located northeast of the pit floor, and was at a higher elevation than the floor.

Natural Soils

The Everhart Pit contains silty sand with varying amounts of gravel, and clayey sand with varying amounts of gravel extending to depths of 12 to 31 feet. The sand soils were very loose to very dense based on the results of field penetration resistance tests. Five samples of the silty sand soils tested in our laboratory contained 17 to 36 percent silt and clay-sized particles (passing the No. 200 sieve), and up to 19 percent gravel sized particles (passing the 3-inch sieve and retained on the No. 4 sieve). One sample of the clayey sand soils tested in our laboratory contained 44 percent silt and clay-sized particles and 5 percent gravel.

Bedrock

Claystone and shale bedrock were encountered underlying the sand soils and were very hard based on the results of field penetration resistance tests.

GEOTECHNICAL RISK

The concept of risk is an important aspect with any geotechnical evaluation primarily because the methods used to develop geotechnical recommendations do not comprise an exact science. We never have complete knowledge of subsurface conditions. Our analysis must be tempered with engineering judgment and experience.

LIMITATIONS

Our borings were located to obtain a reasonably accurate indication of subsurface conditions. The borings are representative of conditions encountered only at the location drilled. Subsurface variations not indicated by our borings are possible.

We believe this investigation was conducted with that level of skill and care normally used by geotechnical engineers practicing under similar conditions. No warranty, express or implied, is made.



If we can be of further service in discussing the contents of this report or in the analysis of the influence of the subsurface conditions on the design of the project, please call.

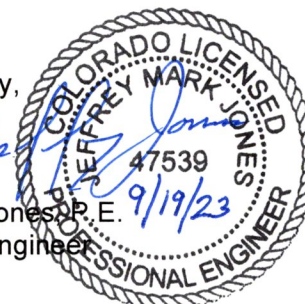
Respectfully Submitted,

CTL|THOMPSON, INC.

Dennis E. Pelham, E.I.
Staff Engineer

Reviewed By,

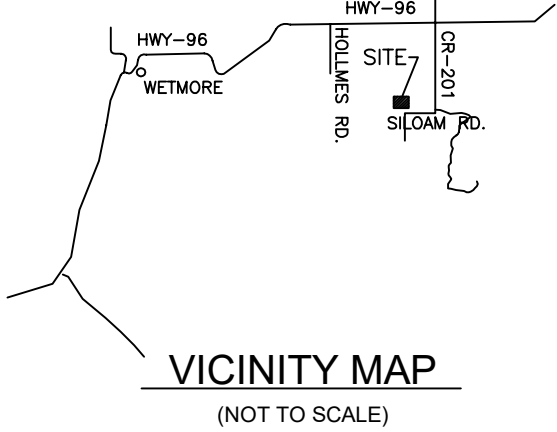
Jeffrey M. Jones, P.E.
Associate Engineer



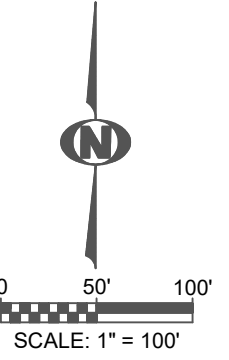
DEP:JMJ:cw

Attachments: Fig. 1 – Location of Exploratory Borings
Fig. 2 – Summary Log of Exploratory Borings
Figs. 3 through 8 – Gradation Test Results
Table 1 – Summary of Laboratory Test Results

Via email: karima@pueblounty.us

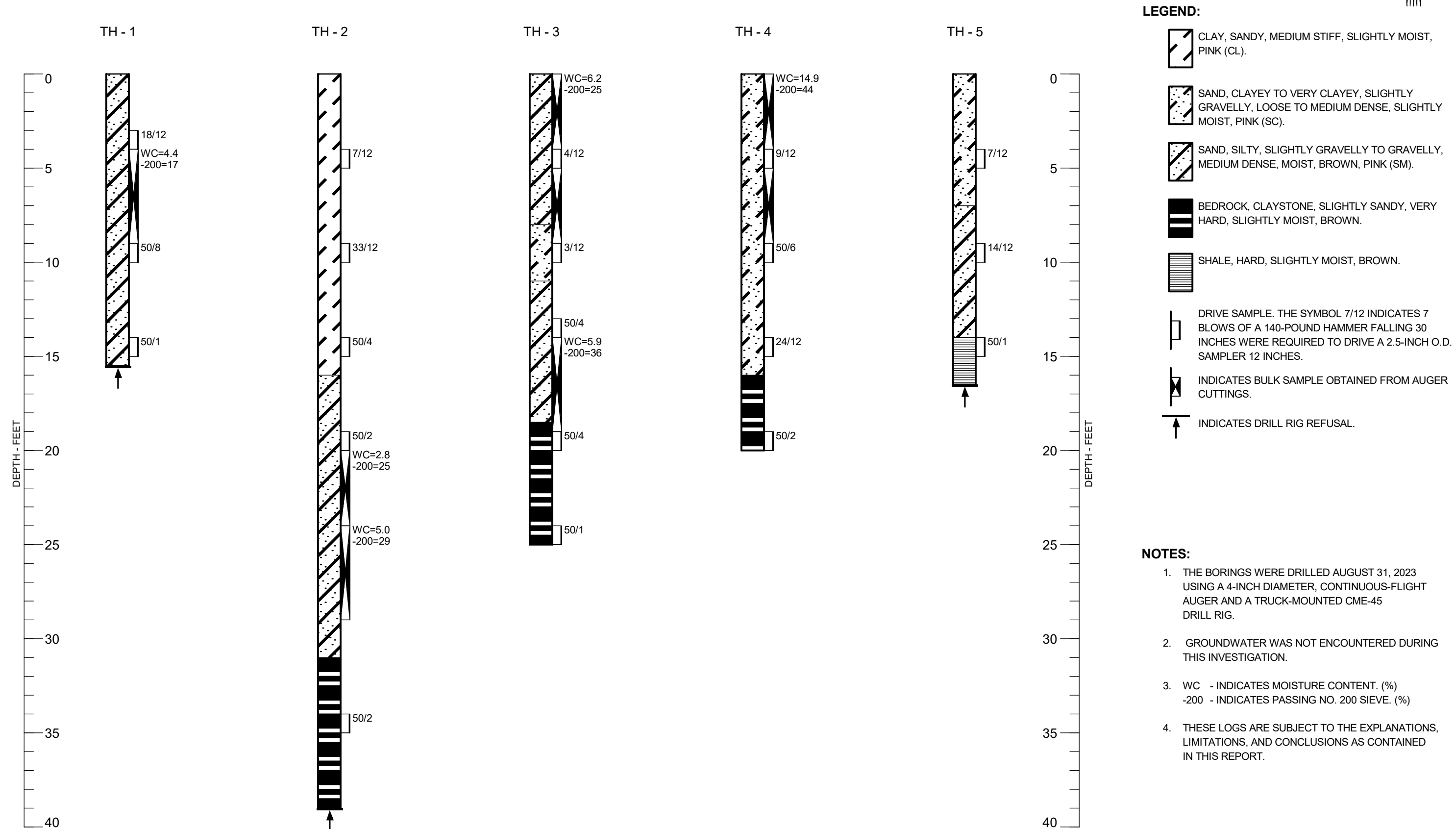


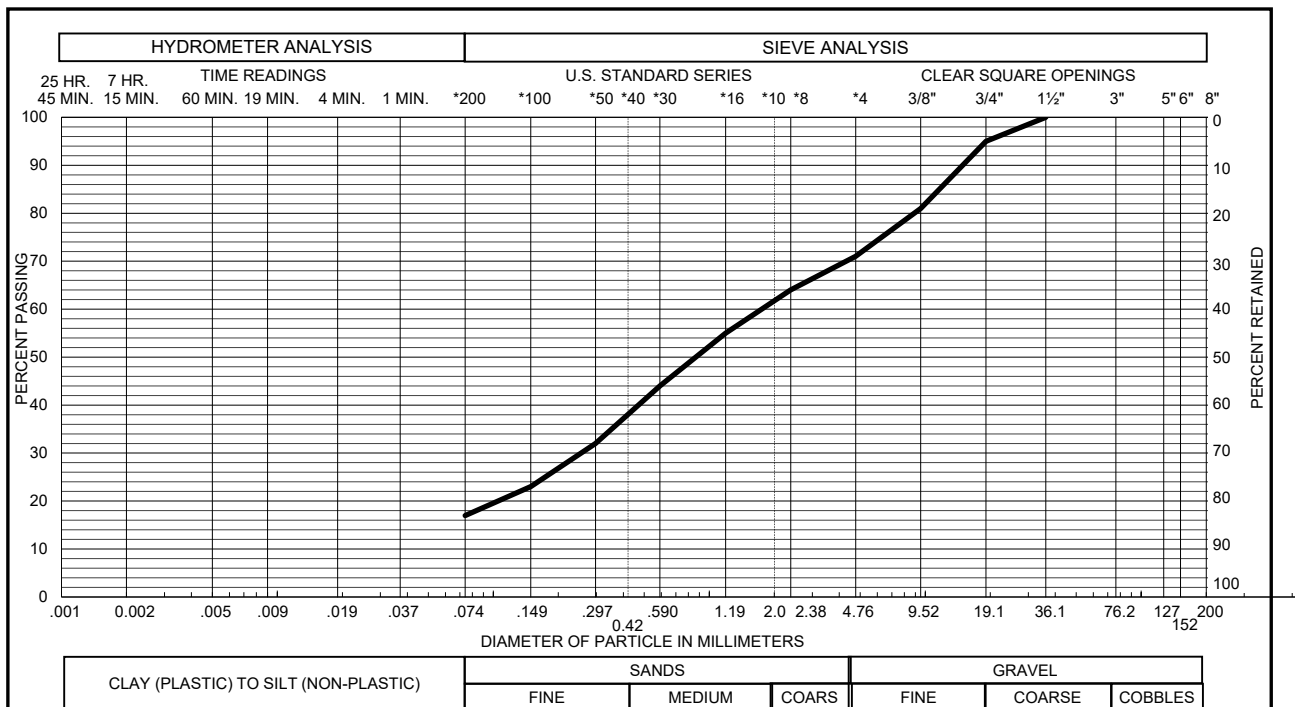
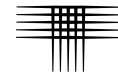
LEGEND:
TH-1 ● APPROXIMATE LOCATION OF EXPLORATORY BORING.



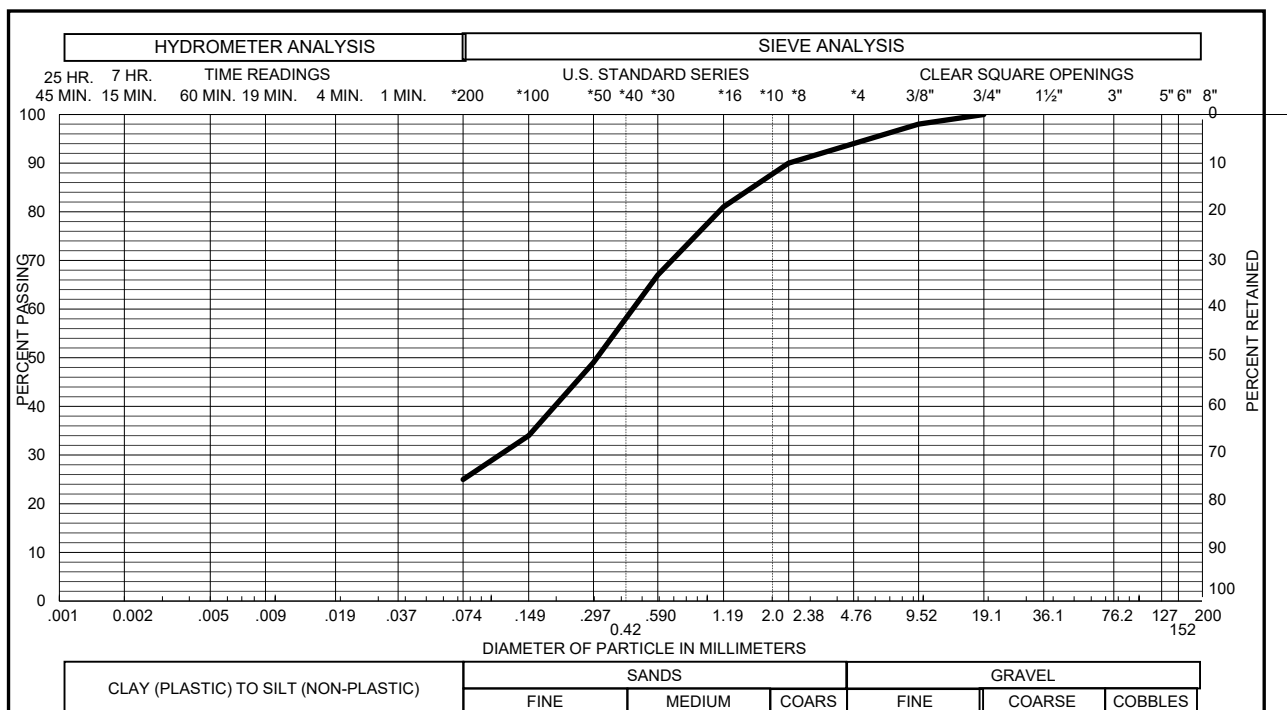
Location of
Exploratory
Borings

FIG. 1

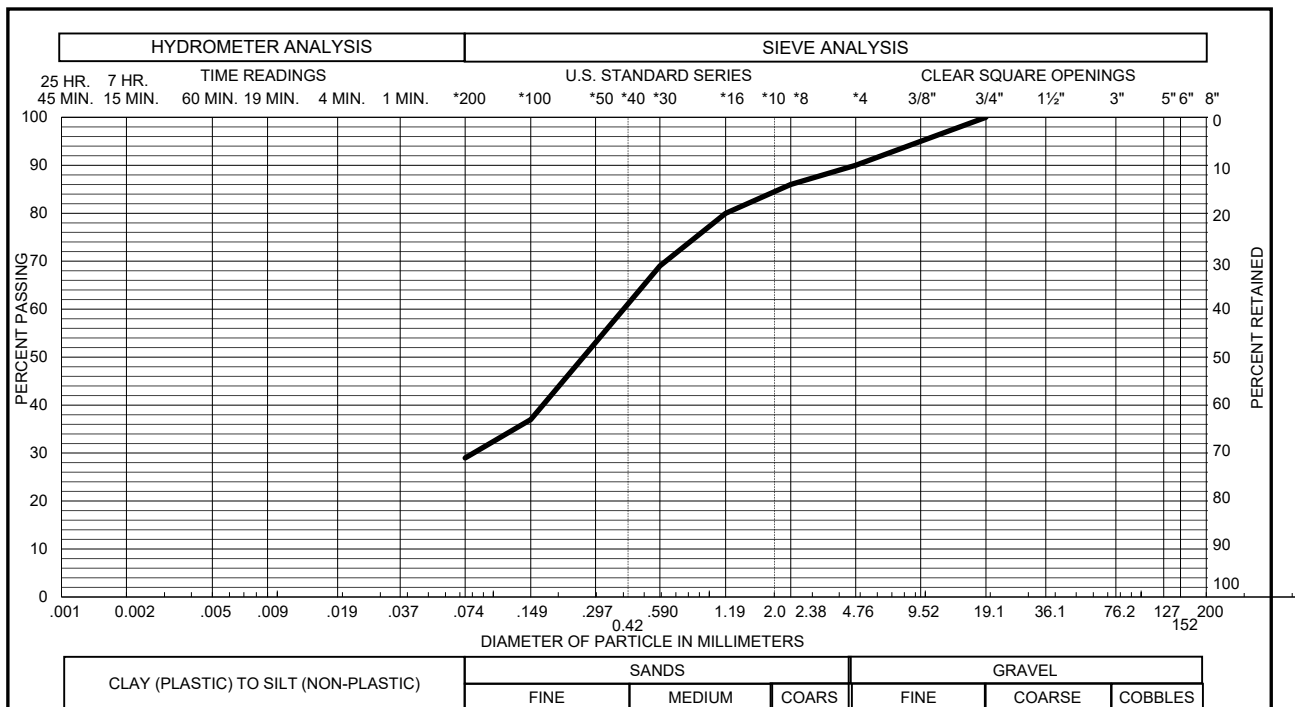
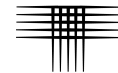




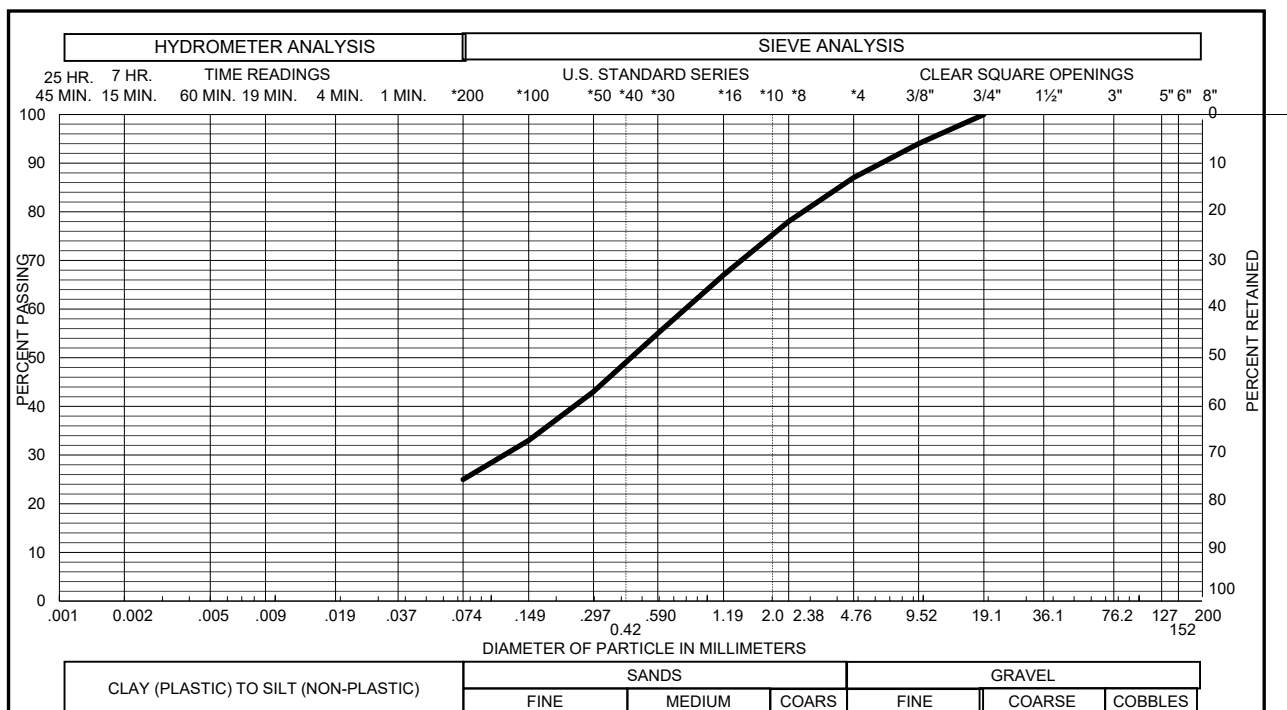
Sample of SAND, SILTY, GRAVELLY (SM) GRAVEL 29 % SAND 54 %
From TH - 1 AT 4-9 FEET SILT & CLAY 17 % LIQUID LIMIT _____
PLASTICITY INDEX _____



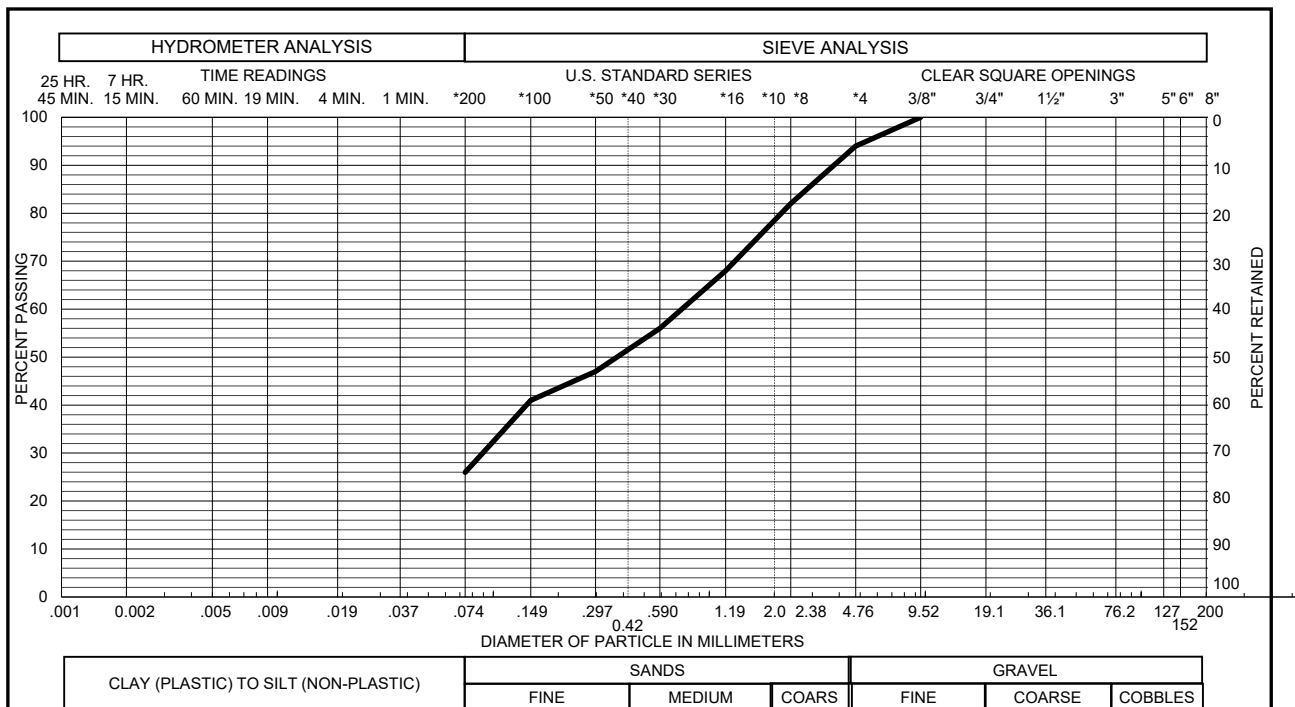
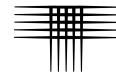
Sample of SAND, SILTY, SLIGHTLY GRAVELLY (SM) GRAVEL 6 % SAND 69 %
From TH - 2 AT 20-24 FEET SILT & CLAY 25 % LIQUID LIMIT _____
PLASTICITY INDEX _____



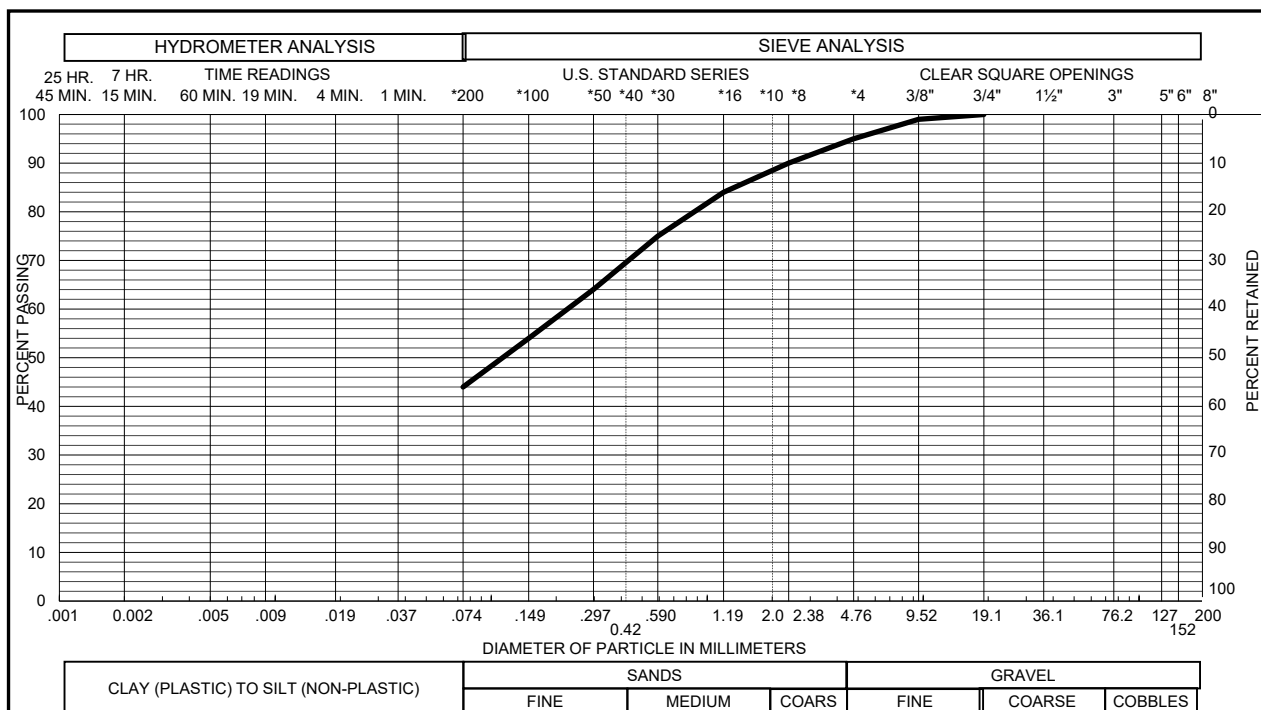
Sample of SAND, SILTY, SLIGHTLY GRAVELLY (SM) GRAVEL 10 % SAND 61 %
From TH - 2 AT 24-29 FEET SILT & CLAY 29 % LIQUID LIMIT
PLASTICITY INDEX



Sample of SAND, SILTY, GRAVELLY (SM) GRAVEL 13 % SAND 62 %
From TH - 3 AT 0-9 FEET SILT & CLAY 25 % LIQUID LIMIT
PLASTICITY INDEX



Sample of SAND, VERY SILTY, SLIGHTLY GRAVELLY (SM) GRAVEL 6 % SAND 68 %
From TH - 3 AT 14-19 FEET SILT & CLAY 26 % LIQUID LIMIT _____
PLASTICITY INDEX _____



Sample of SAND, VERY CLAYEY, SLIGHTLY GRAVELLY (SC) GRAVEL 5 % SAND 51 %
From TH - 4 AT 0-9 FEET SILT & CLAY 44 % LIQUID LIMIT _____
PLASTICITY INDEX _____

SUMMARY OF LABORATORY TESTING

CTL/T PROJECT NO. SC03657-125

[illegible]

* SWELL MEASURED UNDER ESTIMATED IN-SITU OVERBURDEN PRESSURE.
NEGATIVE VALUE INDICATES COMPRESSION.