

Preliminary Low Impact Development Plan (LID Plan)

Project Name:

Rexford Expansion Project

14820 Carmenita Road

Norwalk, CA 90650

Prepared for:

Rexford Industrial Realty, L.P.

11620 Wilshire Boulevard, #1000

Los Angeles, CA 90024

Contact: David Sestak

Tel: (310) 307-4412

Prepared by:

DRC Engineering Inc.

160 South Old Springs Road #210

Anaheim Hills, CA 92808

Contact: Matthew Hellesen, P.E.

Tel: (714) 685-6860



PE Stamp & Sign Here

August 22, 2023

DRC Project No. 19-350

Project Owner's Certification

I certify under penalty of law that this document and all attachments were prepared under my jurisdiction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathered the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner's Name:	David Sestak		
Owner's Title:	Senior Construction Manager		
Company:	Rexford Industrial Realty, L.P.		
Address:	11620 Wilshire Boulevard, #1000		
Email:	dsestak@rexfordindustrial.com		
Telephone No:	310-307-4412		
Signature:		Date:	



Preparer (Engineer) Certification

Engineer's Name:	Matthew Hellesen		
Engineer's Title:	Project Engineer		
Company:	DRC Engineering, Inc.		
Address:	160 South Old Springs Road, Suite 210		
Email:	mhellesen@drc-eng.com		
Telephone No:	714-685-6860 x364		
I hereby certify that this Low Impact Development Plan is in compliance with, and meets the requirements set forth in, Order No. R4-2012-0175, of the Los Angeles Regional Water Quality Control Board.			
Engineer's Signature		Date	
Place Stamp Here			



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1. PROJECT DESCRIPTION

1.1. PROJECT CATEGORY

Check which box best represents the proposed project category. Only check "Yes" for one box.

Category	YES	NO
1. Development ^a of a new project equal to 1 acre or greater of disturbed area and adding more than 10,000 square feet of impervious area ^b	☐	☒
2. Development ^a of a new industrial park with 10,000 square feet or more of surface area ^c	☐	☒
3. Development ^a of a new commercial mall with 10,000 square feet or more surface area ^c	☐	☒
4. Development ^a of a new retail gasoline outlet with 5,000 square feet or more of surface area ^c	☐	☒
5. Development ^a of a new restaurant (SIC 5812) with 5,000 square feet or more of surface area ^c	☐	☒
6. Development ^a of a new parking lot with either 5,000 ft ² or more of impervious area ^b or with 25 or more parking spaces	☐	☒
7. Development ^a of a new automotive service facility (SIC 5013, 5014, 5511, 5541, 7532-7534 and 7536-7539) with 5,000 square feet or more of surface area ^c	☐	☒
8. Projects located in or directly adjacent to, or discharging directly to a Significant Ecological Area (SEA), ^d where the development will: a. Discharge stormwater runoff that is likely to impact a sensitive biological species or habitat; and b. Create 2,500 square feet or more of impervious area ^b	☐	☒
9. Redevelopment ^e of 5,000 square feet or more in one of the categories listed above If yes, list redevelopment category here: Category 1	☒	☐
10. Redevelopment ^e of 10,000 square feet or more to a Single Family Home, without a change in land use.	☐	☒

a Development includes any construction or demolition activity, clearing, grading, grubbing, or excavation or any other activity that results in land disturbance.

b Surfaces that do not allow stormwater runoff to percolate into the ground. Typical impervious surfaces include: concrete, asphalt, roofing materials, etc.

c the surface area is the total footprint of an area. Not to include the cumulative area above or below the ground surface.

d An area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and would be disturbed or degraded by human activities and developments. Also, an area designated by the City as approved by the Regional Water Quality Control Board.

e Land-disturbing activities that result in the creation, addition, or replacement of a certain amount of impervious surface area on an already developed site. If the activity results in an alteration to more than 50% of the impervious surface area on the already developed site and the existing site was not subject to post-construction storm water quality control requirements, then the entire site must be mitigated.



1.2. PROJECT DESCRIPTION

Total Project Area (ft²): 306,208

Total Project Area (Ac): 7.03

Existing Conditions

Condition	Area (ft ²)	Percentage (%)
Pervious Area:	700	1
Impervious Area:	305,508	99

PROPOSED CONDITIONS

Condition	Area (ft ²)	Percentage (%)
Pervious Area:	20,498	7
Impervious Area:	285,710	93

SITE CHARACTERISTICS

DRAINAGE PATTERNS/CONNECTIONS	Existing: The project consists of two single story industrial buildings and associate concrete and asphaltic pavement. The majority of the site drains via surface flow. The north-east quadrant of the site generally drains to the north east corner, offsite to the neighboring property and ultimately to the public system along Spring Avenue. The rest of the site generally drains via surface flow to the existing driveway located at the south east corner of the site and ultimately to the public system along Excelsior Drive. The site doesn't collect/treat any of the water onsite in the existing condition.
	Proposed: It is proposed to construct a new 1-story warehouse building and associated pavement on the 7.03-acre site. The proposed site will be graded to convey surface flow to concrete gutters and catch basins. In accordance with the LA County LID Manuel, the first 0.81 inches of rainfall, which is the 85th Percentile Rainfall Depth for this area, will be intercepted, retained and treated on-site in two separate underground infiltration systems before discharging to the public system along Excelsior Drive located at the south east corner of the site and Spring Street located at the north east corner.
NARRATIVE PROJECT DESCRIPTION:	SIC Code 4225- General Warehousing and Storage. The site currently consists two single story industrial buildings and associate concrete and asphaltic pavement. The entire site will be demolished with the construction of the proposed 1-story warehouse.



	The proposed site grading will generally match the existing drainage patterns. No on-site food preparation is planned. The proposed site will increase impervious area by 20,000 SF±. The proposed site will split the drainage areas in two (denoted as Area's A & B, see LID Map in Appendix A), to more accurately match the existing drainage pattern. Run-off is designed to be collected, treated, and stored underground via infiltration BMPs, any excess overflow is designed to pond and discharge via surface flow while maintaining the existing drainage pattern. Plants with similar and low irrigation requirements will be chosen for efficient irrigation purposes. It should be noted that historic ground water levels, according to the Water Replenishment District of Southern California maps referenced in the most recent GMED Policy GS 200.1, is roughly 80 feet deep which permits the usage of infiltration BMPs (see WRD Groundwater Elevation Contours map referenced in Appendix C).
OFFSITE RUN-ON	No tributary off-site run-on noted.
UTILITY AND INFRASTRUCTURE INFORMATION	On-site utilities: Underground site utilities are not expected to be impacted. Existing sewer to North of site- no impact expected. Proposed domestic water supply- no impact expected. Site dry utilities- no impact expected. Proposed storm drain- Catch basins with pre-filter treatment devices (Kristar filter inserts or approved alternate) with low-flow shallow depth piping to route flows to either underground infiltration basins (StormTech MC 4500 Arch Chambers , or approved alternate).
SIGNIFICANT ECOLOGICAL AREAS (SEAs)	None noted.

1.3. HYDROMODIFICATION ANALYSIS

DOES THE PROPOSED PROJECT FALL INTO ONE OF THE FOLLOWING CATEGORIES? CHECK YES/NO.	YES	NO
1. <i>Project is a redevelopment that decreases the effective impervious area compared to the pre-project conditions.</i>	☒	☐
Describe: Approximate 20,000 SF decrease in impervious area.		
2. <i>Project is a redevelopment that increases the infiltration capacity of pervious areas compared to the pre-project conditions.</i>	☐	☒
Describe: Project will utilize existing soil, suitable for infiltration per soils report recommendations.		
3. <i>Project discharges directly or via a storm drain to a sump, lake, area under tidal influence, into a waterway that has a 100-year peak flow (Q_{100}) of 25,000 cfs or more.</i>	☐	☒
Describe: No direct discharge to any of the listed conditions.		
4. <i>Project discharges directly or via a storm drain into concrete or otherwise engineered (not natural) channels (e.g., channelized or armored with rip rap, shotcrete, etc.), which, in turn, discharge into receiving water that is not susceptible to hydromodification impacts.</i>	☐	☒
Describe: No direct discharge to any of the listed conditions.		

HYDROMODIFICATION ANALYSIS

Hydromodification not required.



1.4. PROPERTY OWNERSHIP/MANAGEMENT

	All Parcels are part of the overall property to be maintained by: Rexford Industrial Realty 11620 Wilshire Boulevard, #1000 Los Angeles, CA 90024 Contact: David Sestak Tel: (310) 307-4412
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2. BEST MANAGEMENT PRACTICES (BMPs)

2.1. SITE DESIGN

85 TH PERCENTILE, 24-HOUR STORM DEPTH	Per City of Los Angeles LID manual, the first 0.81 inches (85 th Percentile Rainfall Depth) must be treated.
SITE DESIGN	Site run-off will be conveyed via surface sheet and gutter flow to catch basins with filter inserts to capture and/or remove debris and pollutants. Run-off will be piped to an underground infiltration basin. The infiltration basins have been sized to capture 0.81" of rainfall and drawdown time has been evaluated based on the infiltration rates per Geotechnical Engineering Report prepared by Sladden Engineering, prepared August 23, 2019. Once required treatment volume has been captured within the basins, any excess will pond/spill out of the drop inlet and discharge via surface flow while maintain the existing drainage pattern. Drainage areas are split into Area's A & B to more accurately match the existing drainage pattern. Area A will discharge to the north east corner of the site and ultimately into the public system along Spring Street, while Area B will discharge to the south east corner of the site and ultimately into the public system along Excelsior Drive.

BMP LIST

DMA #	SQUARE FOOTAGE (SF)	ACREAGE (Ac)	STORM WATER QUALITY DESIGN VOLUME (SWQDV, CF)	BMP TYPE	MINIMUM BMP SIZE	BMP SIZE PROVIDED	DRAWDOWN TIME (HOURS)	GPS COORDINATES
A	104,544	2.4	5,795 CF	Below Ground Infiltration Basin	5,795 CF	5,996 CF	79	Per Plan
B	200,286	4.6	11,428 CF	Below Ground Infiltration Basin	11,428 CF	11,434 CF	80	Per Plan



2.2. BMP SELECTION

2.2.1. INFILTRATION BMPs

NAME	INCLUDED [Check all that apply.]
Bioretention without underdrains	☐
Infiltration Trench	☐
Infiltration Basin	☒
Drywell	☐
Proprietary Subsurface Infiltration Gallery	☒
Permeable Pavement (concrete, asphalt, pavers)	☐
Other:	☐
Other:	☐

DESCRIPTION	Two (2) separate below ground infiltration basins (A=5,996 CF, B=11,343 CF) to capture and infiltrate, while hi-flows by-pass the basin.
CALCULATIONS	Required DMA Storm Water Quality Design Volumes were calculated utilizing the City of Los Angeles LID manual. Please see Appendix B. See attached hand calc's for draw down time and storage provided.



2.2.2. RAINWATER HARVEST AND USE BMPs

NAME	INCLUDED
	[Check all that apply.]
Above-ground cisterns and basins	☐
Underground detention	☐
Other:	☐
Other:	☐
Other:	☐

DESCRIPTION	Not Applicable
CALCULATIONS	



2.2.3. ALTERNATIVE COMPLIANCE BMPs

BIOFILTRATION BMPs

(If Infiltration BMPs and Rainwater Harvest and Use BMPs are Infeasible)

NAME	INCLUDED [Check all that apply.]
Bioretention with underdrains (i.e. planter box, rain garden, etc.)	☐
Constructed Wetland	☐
Vegetated Swale	☐
Vegetated Filter Strip	☐
Tree-Well Filter	☐
Other:	☐
Other:	☐

DESCRIPTION	None selected, site requirements met with infiltration via underground and above ground basins.
CALCULATIONS	



OFFSITE BMPs

(If Infiltration BMPs, Rainwater Harvest and Use BMPs, and Biofiltration BMPs are Infeasible)

NAME	INCLUDED [Check all that apply.]
Offsite Infiltration	☐
Ground Water Replenishment Projects	☐
Offsite Project - Retrofit Existing Development	☐
Regional Storm Water Mitigation Program	☐
Other:	☐
Other:	☐

DESCRIPTION	Not Applicable.
CALCULATIONS	



2.2.4. TREATMENT CONTROL BMPs

Treatment control BMPs can only be used as pre-treatment to LID BMPs.

NAME	INCLUDED [Check all that apply.]
Media Filter	☐
Filter Insert	☒
CDS Unit	☐
Other:	☐
Other:	☐

DESCRIPTION	Flow will be conveyed into five (5) site drop inlets utilizing Kristar inlet filter inserts prior to pipe flow into the underground infiltration basin.
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2.2.5. HYDROMODIFICATION CONTROL BMPs

NAME	INCLUDED
	[Check all that apply.]
Infiltration System	☐
Above-ground Cistern	☐
Above-ground Basin	☐
Underground Detention	☐
Other:	☐
Other:	☐

DESCRIPTION	Not Applicable.
CALCULATIONS	



2.2.6. NON-STRUCTURAL SOURCE CONTROL BMPs

NAME	CHECK ONE	
	Included	Not Applicable
Education for Property Owners, Tenants and Occupants	☒	☐
Activity Restrictions	☐	☒
Common Area Landscape Management	☒	☐
Common Area Litter Control	☒	☐
Housekeeping of Loading Docks	☐	☒
Common Area Catch Basin Inspection	☒	☐
Street Sweeping Private Streets and Parking Lots	☒	☐



2.2.7. STRUCTURAL SOURCE CONTROL BMPs

NAME	CHECK ONE	
	Included	Not Applicable
Provide storm drain system stenciling and signage	☒	☐
Design and construct outdoor material storage areas to reduce pollution introduction	☐	☒
Design and construct trash and waste storage areas to reduce pollution introduction	☒	☐
Use efficient irrigation systems & landscape design, water conservation, smart controllers, and source control	☒	☐
Protect slopes and channels and provide energy dissipation	☒	☐
Loading docks	☐	☒
Maintenance bays	☐	☒
Vehicle wash areas	☐	☒
Outdoor processing areas	☐	☒
Equipment wash areas/racks	☐	☒
Fueling areas	☐	☒
Hillside landscaping	☐	☒

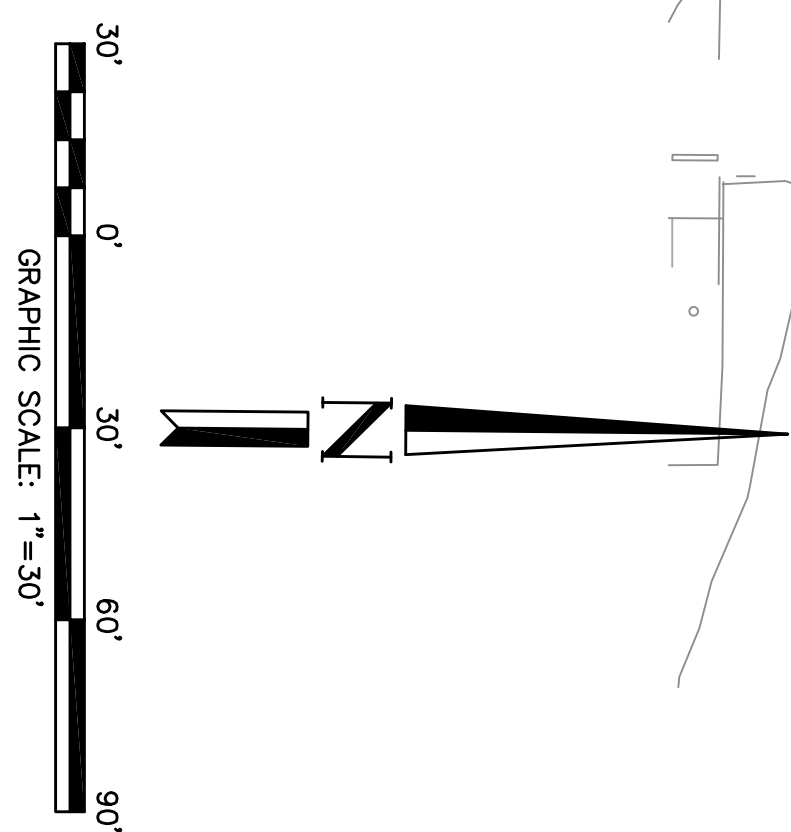
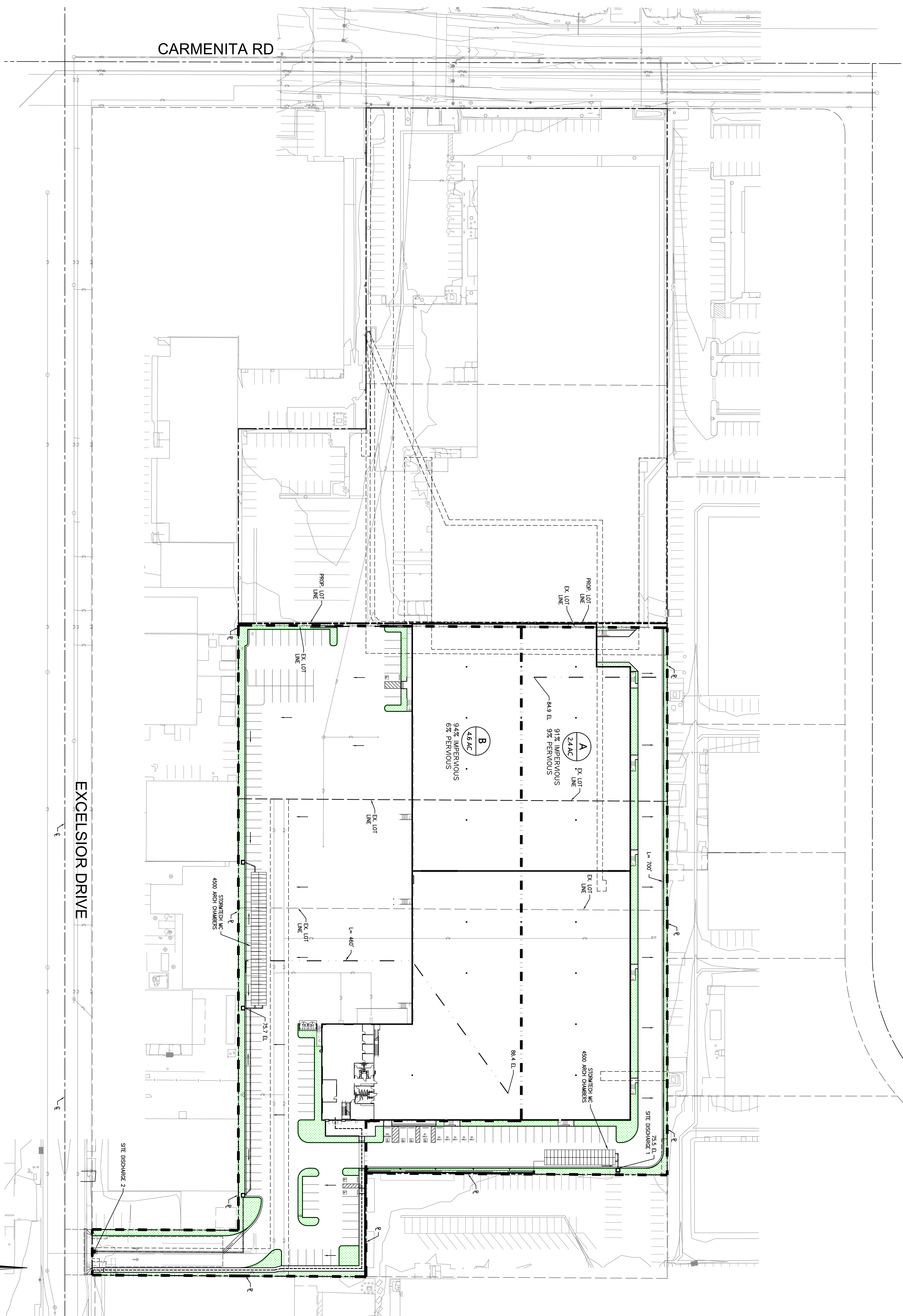


Attachment A

Site Plot Plan & Maps

Vicinity Map





OF 1 SCALE: 1"=50' SHEETS	ISSUE: LID MAP DATE: 08/22/23 CHECKED BY: DRAWN BY DRAWING FILE: 3350D.LWP PROJECT NO.: 3-330 SHEET NUMBER: 1	PROJECT: REXFORD EXPANSION PROJECT 14820 CARMENITA ROAD NORWALK, CA 90650 DRAWING NAME: LID MAP	NO.: REVISION:	DATE:
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EXTERNAL REFERENCES: 3350m-gcd 3350d-pt01 3350d-pt01 3350d-pt01 3350d-pt01 3350d-pt01 3350d-pt01

FILENAME: M:\2023\13-350_Rexford Expansion_Rd\3350D.LWP 3350D.LWP 3350D.LWP 3350D.LWP 3350D.LWP 3350D.LWP

Aug 22, 2023 1:15pm PLOTTED BY: DREW, ON: Aug 22, 2023 2:22pm, CFG:

160 S. Old Springs Road
Suite 210
Anaheim Hills, CA 92808
714-685-6860

DRC Engineering, Inc.
Civil Engineering/Land Surveying/Land Planning

160 S. Old Springs Road
Suite 210
Anaheim Hills, CA 92808
714-685-6860

NOT FOR CONSTRUCTION

NOT FOR CONSTRUCTION

Attachment B

Calculations

Peak Flow Hydrologic Analysis

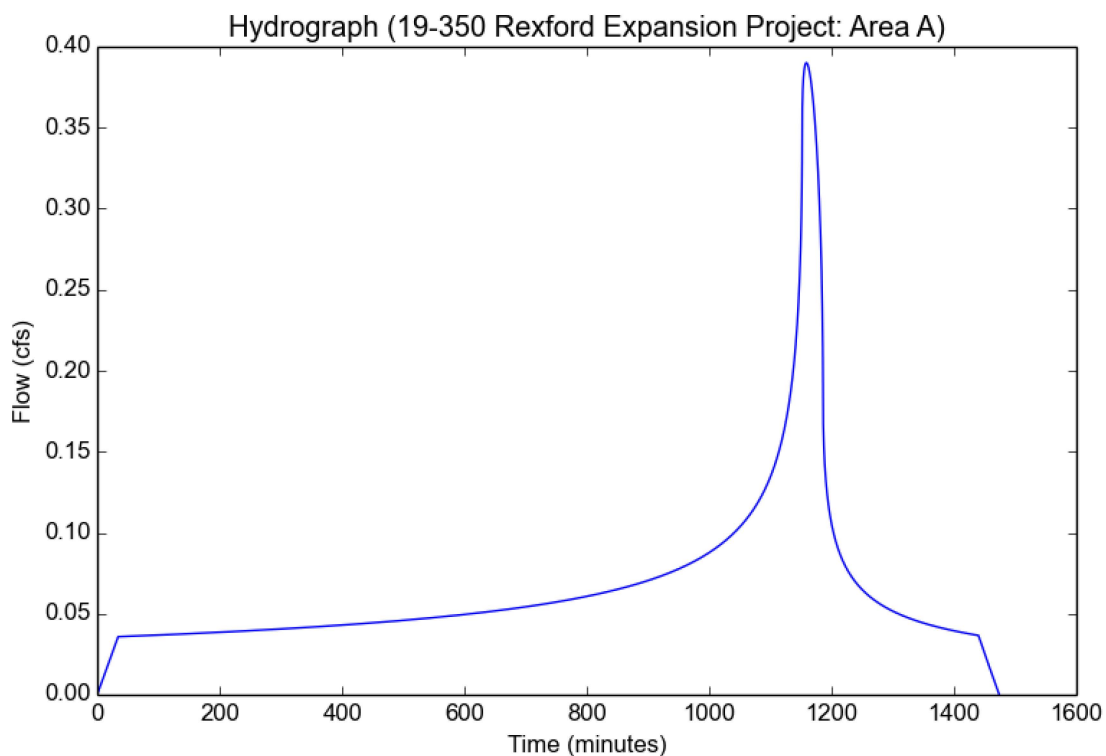
File location: M:/2019/19-350 Rexford Carmenita Rd Norwalk/LID/19-350 Rexford Expansion Project - Area A.pdf
Version: HydroCalc 1.0.2

Input Parameters

Project Name	19-350 Rexford Expansion Project
Subarea ID	Area A
Area (ac)	2.4
Flow Path Length (ft)	700.0
Flow Path Slope (vft/hft)	0.013
85th Percentile Rainfall Depth (in)	0.81
Percent Impervious	0.91
Soil Type	6
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	0.81
Peak Intensity (in/hr)	0.1963
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.828
Time of Concentration (min)	34.0
Clear Peak Flow Rate (cfs)	0.3901
Burned Peak Flow Rate (cfs)	0.3901
24-Hr Clear Runoff Volume (ac-ft)	0.133
24-Hr Clear Runoff Volume (cu-ft)	5794.7609



Peak Flow Hydrologic Analysis

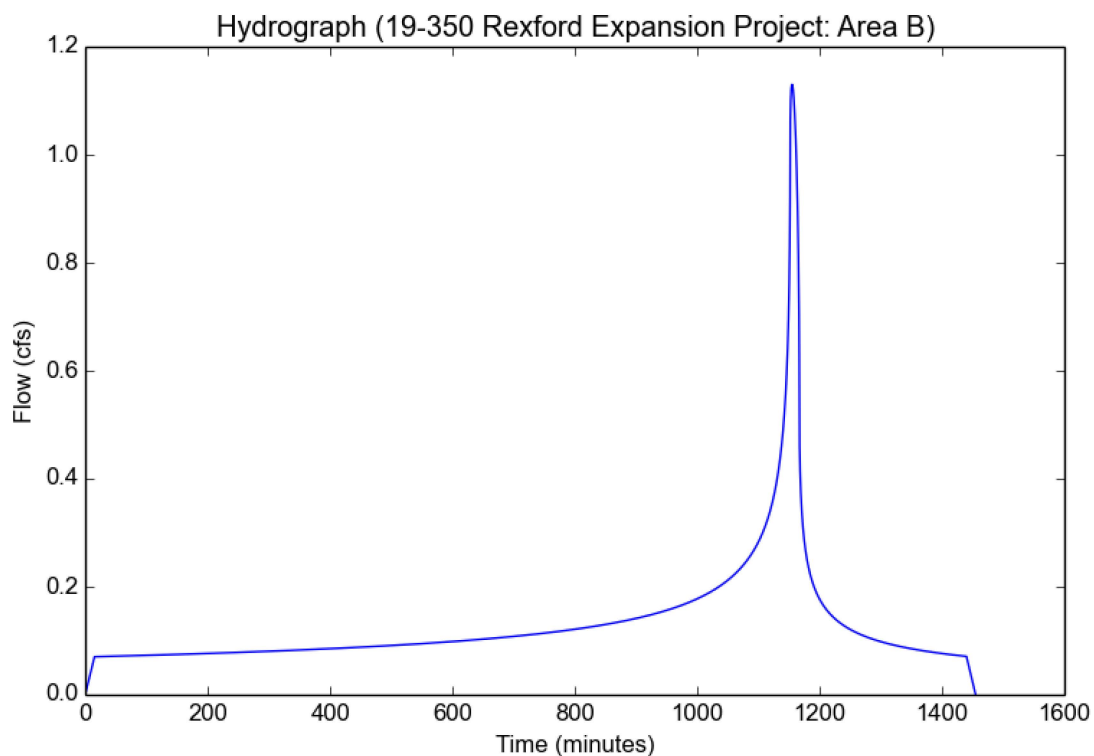
File location: M:/2019/19-350 Rexford Carmenita Rd Norwalk/LID/Reference Files/19-350 Rexford Expansion Project - Area B.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	19-350 Rexford Expansion Project
Subarea ID	Area B
Area (ac)	4.6
Flow Path Length (ft)	460.0
Flow Path Slope (vft/hft)	0.23
85th Percentile Rainfall Depth (in)	0.81
Percent Impervious	0.94
Soil Type	6
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	0.81
Peak Intensity (in/hr)	0.2884
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.852
Time of Concentration (min)	15.0
Clear Peak Flow Rate (cfs)	1.1302
Burned Peak Flow Rate (cfs)	1.1302
24-Hr Clear Runoff Volume (ac-ft)	0.2624
24-Hr Clear Runoff Volume (cu-ft)	11428.4197



LID Infiltration Calcs								
Area	SWQDv	Chambers	End Caps	Volume provided*	Infiltration rate	Factor of Safety	Draw Down Time**	Maximum Draw Down
	CF	EA	EA	CF	in/h		h	h
A	5,795	36	4	5,996	1.5	2	79	96
B	11,428	70	4	11,525	1.5	2	79	96
*Volume per chamber = 162.6 CF and Volume per End Cap = 35.7 CF								
**Draw Down Time Calculations : $t = \frac{60 \text{ in}}{\text{infiltration rate} \times \frac{1}{FS}}$								

FIGURE 3 – StormTech MC-4500 Chamber (not to scale)

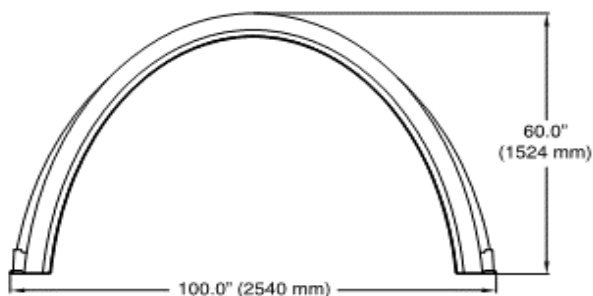
Nominal Chamber Specifications

Size (L x W x H)	52" (1321 mm) x 100" (2540 mm) x 60" (1524 mm)
Chamber Storage	106.5 ft ³ (3.01 m ³)
Min. Installed Storage*	162.6 ft ³ (4.60 m ³)
Nominal Weight	120 lbs (54.4 kg)

FIGURE 4 – StormTech MC-4500 End Cap (not to scale)

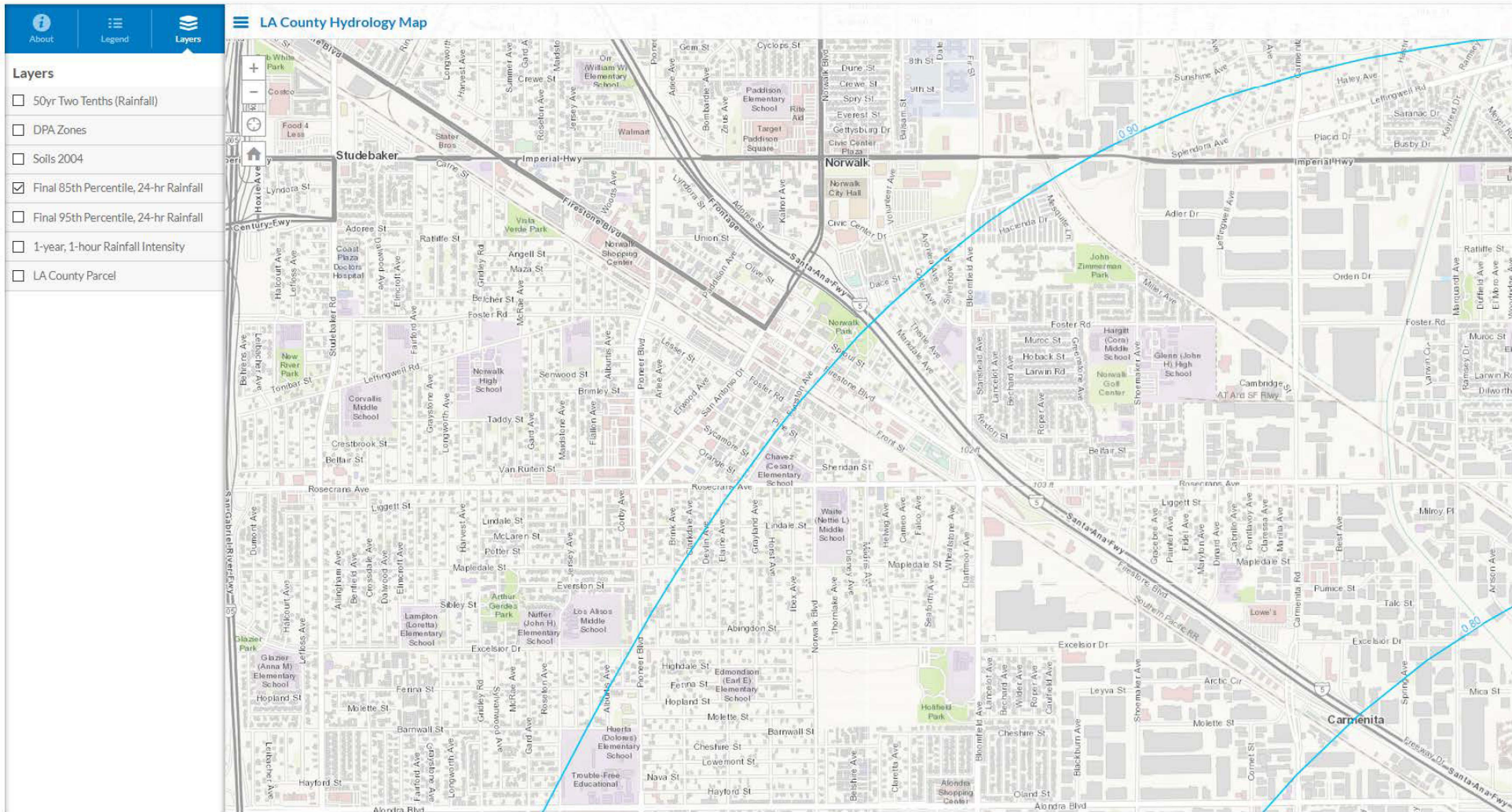
Nominal End Cap Specifications

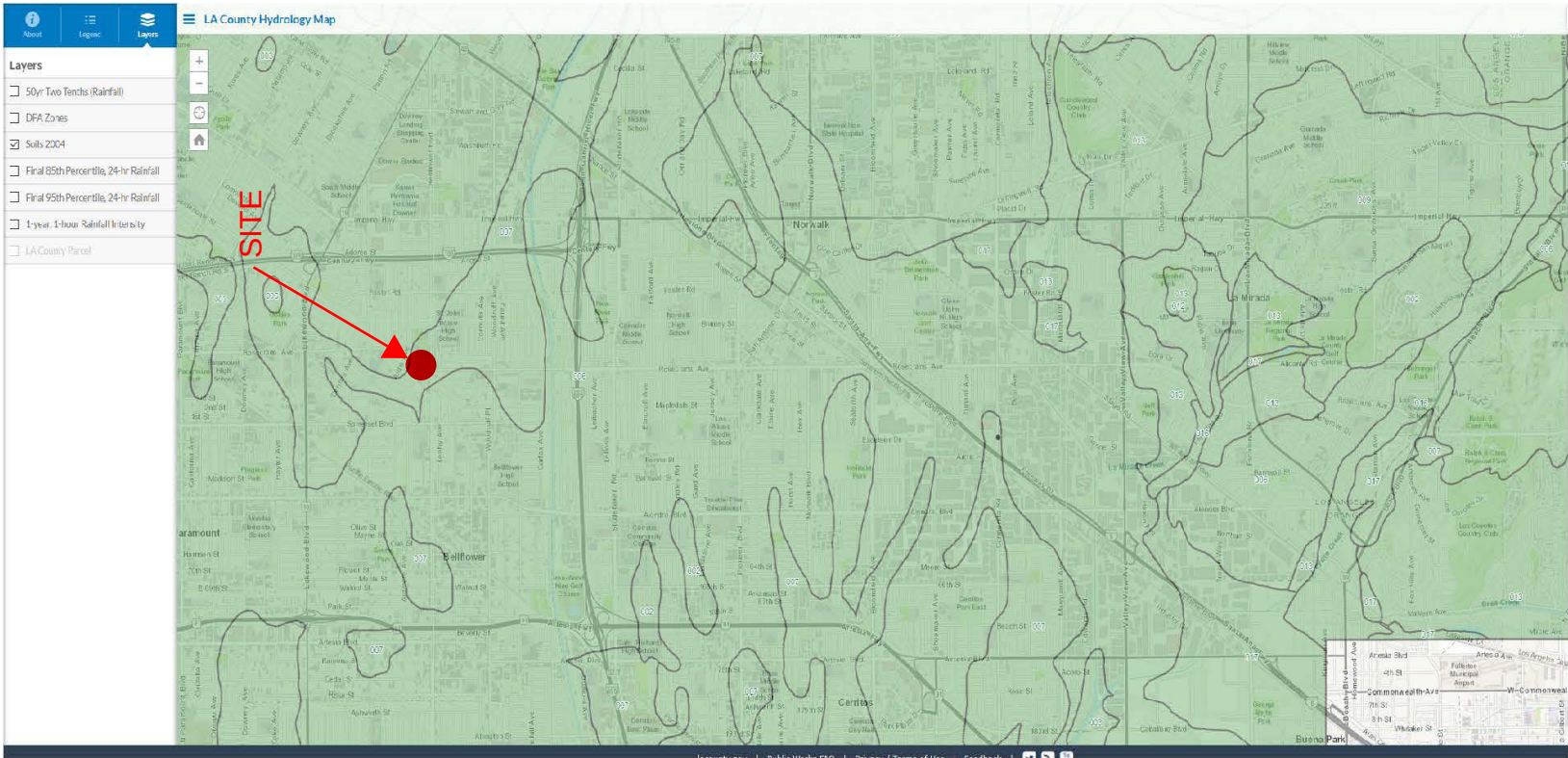
Size (L x W x H)	35.1" (891 mm) x 90.2" (2291 mm) x 59.4" (1509 mm)
End Cap Storage	35.7 ft ³ (1.01 m ³)
Min. Installed Storage*	108.7 ft ³ (3.08 m ³)
Nominal Weight	120 lbs (54.4 kg)

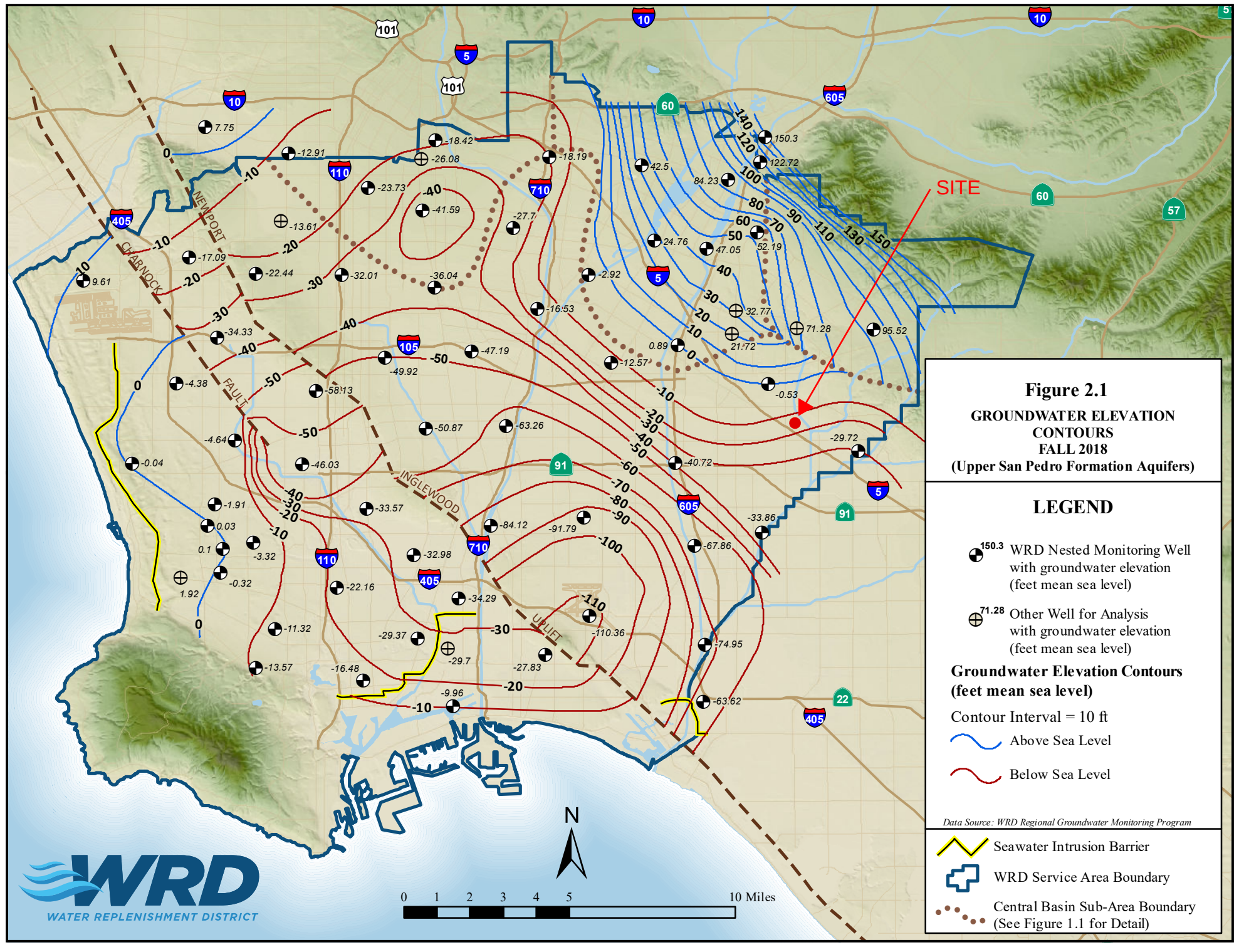


Attachment C

Reference Files







2.1 GROUNDWATER ELEVATION CONTOURS

A contour map showing the groundwater elevations measured across the WRD service area in the deeper, main producing aquifers during the fall of 2018 is presented in **Figure 2.1**. Specific well zones used to develop the groundwater contour map are identified on **Table 2.1**. The fall 2018 Contour Map shows that in the Central Basin water levels range from highs in excess of 150 feet above MSL to lows deeper than 110 feet below MSL. The highest water levels are in the Montebello Forebay; water levels decrease to the south and west towards the Long Beach area, the Newport-Inglewood Uplift, and the Los Angeles Forebay.

In the West Coast Basin, water levels range from highs of nearly 10 feet above MSL to lows of nearly 60 feet below MSL. The highest water levels are along the West Coast Basin Seawater Intrusion Barrier; they decrease to the east where they are at their lowest elevations in the City of Gardena between the Charnock Fault and Newport-Inglewood Uplift, both of which are geologic structural features that partially restrict groundwater flow.

2.2 CHANGES IN GROUNDWATER LEVELS

Groundwater levels measured in fall 2018 compared to those measured in fall 2017 are illustrated on **Figure 2.2**, which is a groundwater level change map. Specific well zones used to develop the groundwater level change map are identified on **Table 2.1**. During WY 2017-18, groundwater levels across the WRD service area have increased in some areas, decreased in others, and are essentially unchanged elsewhere.

In the Central Basin, groundwater levels have decreased nearly everywhere in WY 2017-18. Across the unconfined Montebello Forebay the greatest decreases in water levels are observed in close vicinity to the spreading grounds where water levels are as much as 34 feet lower than they were last year. The decrease in water levels becomes less pronounced moving away from the spreading grounds; while along the eastern reach of the Forebay

Attachment D

Master Covenant Agreement (MCA)

Include a Master Covenant Agreement (MCA) form along with an attached Operations and Maintenance (O&M) Plan, Site Plan, and Owner's Certification. The MCA must list the type and dimensions of each BMP. Once the MCA is approved by the City, it will need to be notarized and recorded (along with attachments) with the County Recorder's Office.

Attachment E

Operations and Maintenance (O&M) Plan

Rexford Industrial Realty

11620 Wilshire Boulevard, #1000

Los Angeles, CA 90024

REQUIRED PERMITS

This section must list any permits required for the implementation, operation, and maintenance of the BMPs. Possible examples are:

- Grading permits necessary for site construction.

If no permits are required, a statement to that effect should be made.

RECORDKEEPING

All records must be made available for review upon request.

RESPONSIBLE PARTY

The owner is aware of the maintenance responsibilities of the proposed BMPs. A funding mechanism is in place to maintain the BMPs at the frequency stated in the LID Plan. The contact information for the entity responsible is below:

Name: _____

Company: _____

Title: _____

Address 1: _____

Address 2: _____

Phone Number: _____

Email: _____

BMP Name	BMP Implementation, Maintenance, and Inspection Procedures	Implementation, Maintenance, and Inspection Frequency and Schedule	Person or Entity with Operation & Maintenance Responsibility
Non-Structural Source Control BMPs			
Education for Property Owners, Tenants and Occupants	Provided		
Common Area Landscape Management	Weekly landscape management.	Weekly	Property management
Common Area Litter Control	Daily trash removal from exterior bins. Weekly inspection and maintenance during as part of landscape.	Daily & Weekly	Daily-Tenant Weekly- Property management
Common Area Catch Basin Inspection	Weekly inspection as part of landscape management to ensure catch basins remain debris free	Weekly	Property management
Structural Source Control BMPs			
Provide Storm Drain System Stenciling and Signage	Stenciling and Signage to be added during initial construction. Annual inspection to ensure legibility of stencils and signs. Replacement/re-stencil as required.	Annual inspection	Property management
Design and Construct Trash and Waste Storage Areas to Reduce Pollutant Introduction	Covered and enclosed trash enclosure area during initial construction. Daily inspection to ensure bins & lids remain covered and closed. Maintain as required.	Daily use inspection. Minimum weekly trash pick-up.	Property management

BMP Name	BMP Implementation, Maintenance, and Inspection Procedures	Implementation, Maintenance, and Inspection Frequency and Schedule	Person or Entity with Operation & Maintenance Responsibility
Use Efficient Irrigation Systems & Landscape Design	Initial construction. Typical irrigation maintenance and inspection. Adjust irrigation level per seasons and make repairs as necessary.	Monthly inspection Maintenance as required.	Property Management
Treatment Control BMPs			
Kristar Catch Basin Insert	Initial construction. Weekly inspection for trash/debris removal as necessary. Follow manufacturer's guidelines regarding replacement.	Weekly inspection	Property Management
LID BMPs			
Below Ground Infiltration Basin	Vendor to provide initial start-up and commissioning. Follow manufacturer specific guidelines for inspection and maintenance	Initial inspections prior to and after seasonal wet-season to establish base line Annual- thereafter	Property Management.

BASIN INSPECTION LOGS

Keep a log of all inspections and maintenance performed on the system. The log should be kept on-site.

Below Ground Infiltration Basin Inspection & Maintenance Log

Initial Basin A Bottom Footprint: 1,292 SF±

Initial Average Basin Bottom elevation: _____

Date	Depth of Sediment	Accumulated Trash	Maintenance Performed	Maintenance Personnel	Comments

Below Ground Infiltration Basin Inspection & Maintenance Log

Initial Basin B Bottom Footprint: 2,450 SF±

Initial Average Basin Bottom elevation:_____

[illegible]

Insert StormTech OEM here

Insert Kristar filter OEM here

1.0 Product Information



FIGURE 3 – StormTech MC-4500 Chamber (not to scale)

Nominal Chamber Specifications

Size (L x W x H)	52" (1321 mm) x 100" (2540 mm) x 60" (1524 mm)
Chamber Storage	106.5 ft ³ (3.01 m ³)
Min. Installed Storage*	162.6 ft ³ (4.60 m ³)
Nominal Weight	120 lbs (54.4 kg)

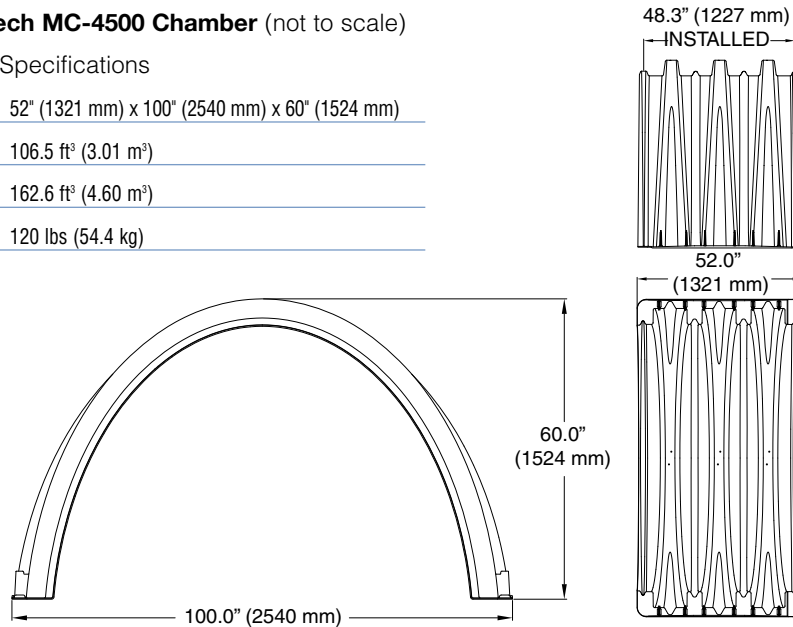
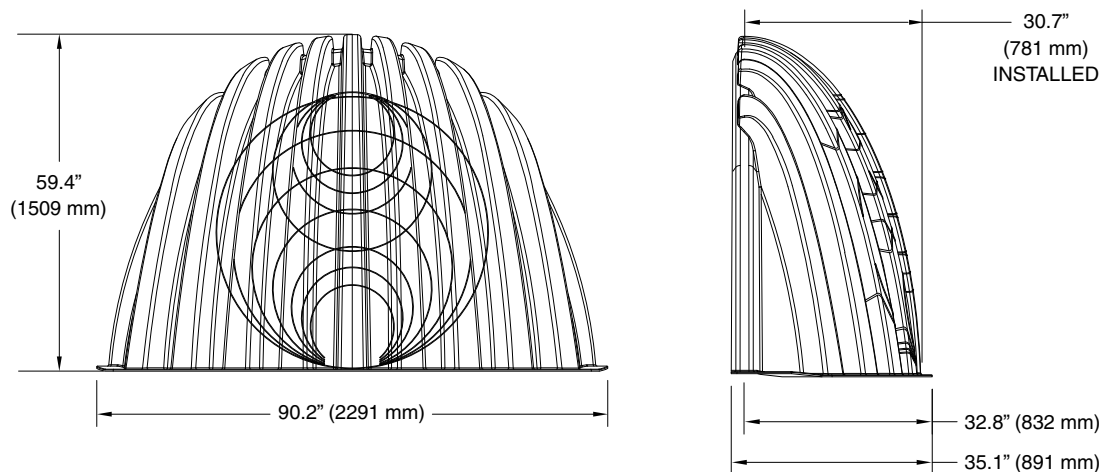


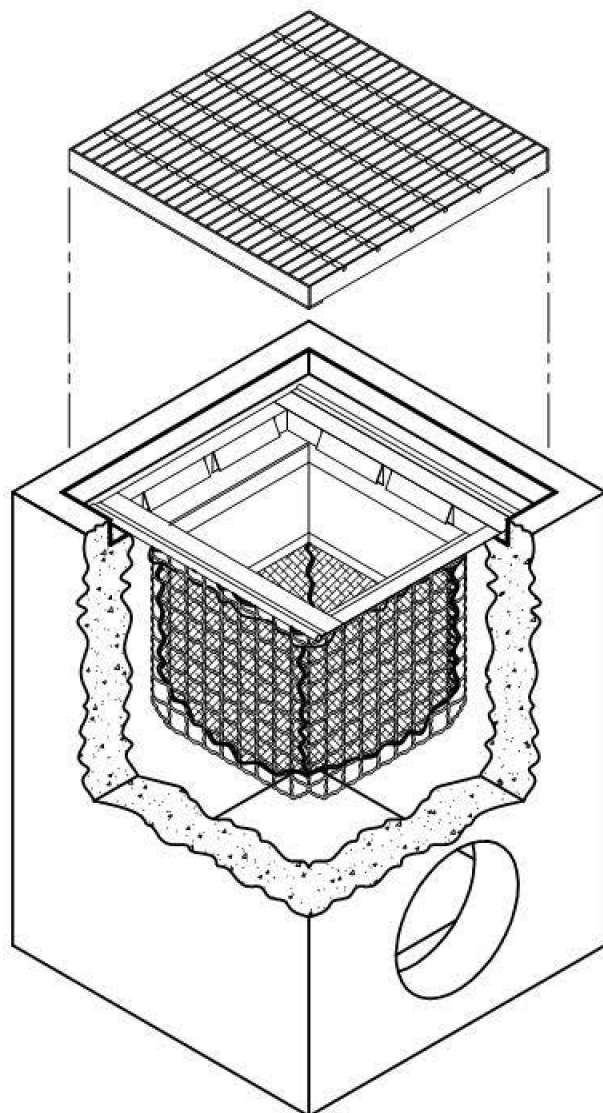
FIGURE 4 – StormTech MC-4500 End Cap (not to scale)

Nominal End Cap Specifications

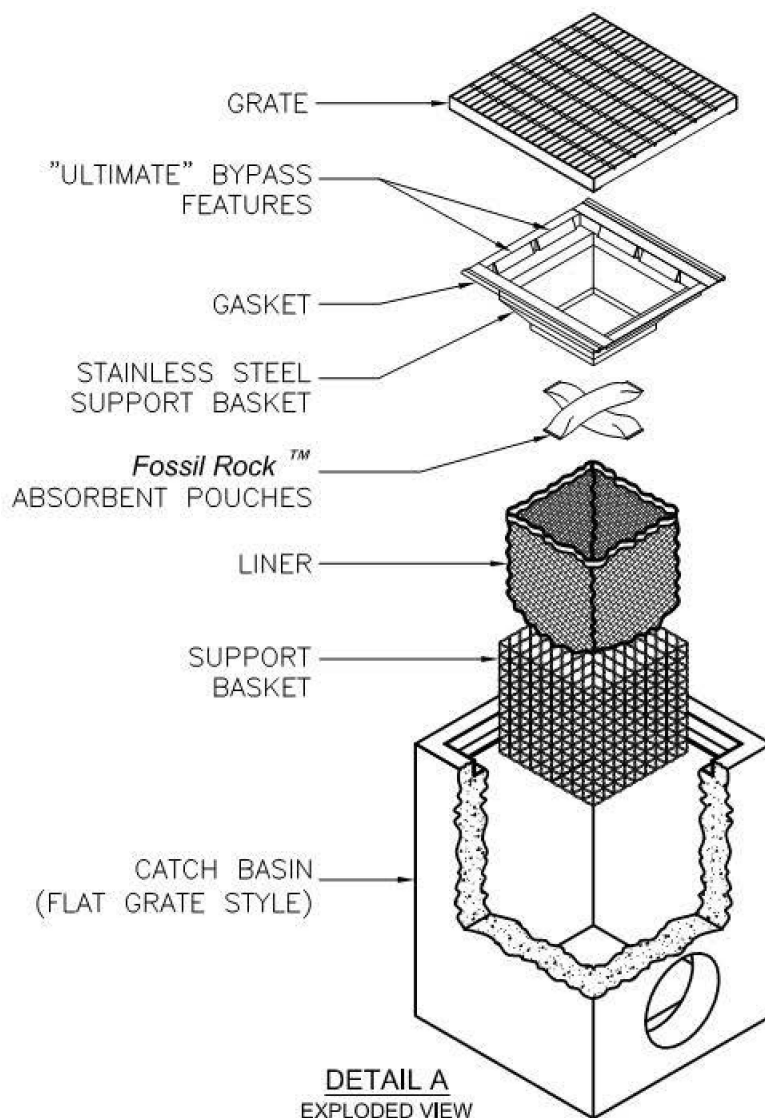
Size (L x W x H)	35.1" (891 mm) x 90.2" (2291 mm) x 59.4" (1509 mm)
End Cap Storage	35.7 ft ³ (1.01 m ³)
Min. Installed Storage*	108.7 ft ³ (3.08 m ³)
Nominal Weight	120 lbs (54.4 kg)



* This assumes a minimum of 12" (305 mm) of stone above, 9" (229 mm) of stone below and 9" (229 mm) of stone between the chambers/end caps and 40% stone porosity. The end cap minimum installed storage also includes the stone storage located in the 12" (305 mm) stone perimeter.



FLOGARD+PLUS® FILTER
-INSTALLED INTO CATCH BASIN-



DETAIL A
EXPLODED VIEW

NOTES:

1. FloGard®+Plus (frame mount) high capacity catch basin inserts are available in most sizes and styles (see specifier chart, sheet 2 of 2). Refer to the FloGard®+Plus (wall mount) insert for devices to fit non-standard, or combination style catch basins.
2. Filter Insert shall have both an "Initial" filtering bypass and "ultimate" high flow bypass feature.
3. Filter support frame shall be constructed from stainless steel Type 304.
4. Allow a minimum of 2.0 feet, of clearance between the bottom of the grate and top of outlet pipe(s), or refer to the FloGard® Insert for "shallow" installations.
5. Filter medium shall be *Fossil Rock™*, installed and maintained in accordance with manufacturer specifications.
6. Storage capacity reflects 80% of maximum solids collection prior to impeding filtering bypass.
7. Filtered flow rate includes a safety factor of two.

U.S. PATENT # 6,00,023 & 6,877,029

TITLE

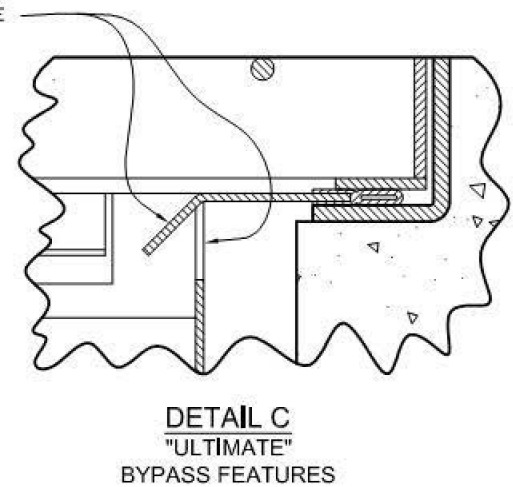
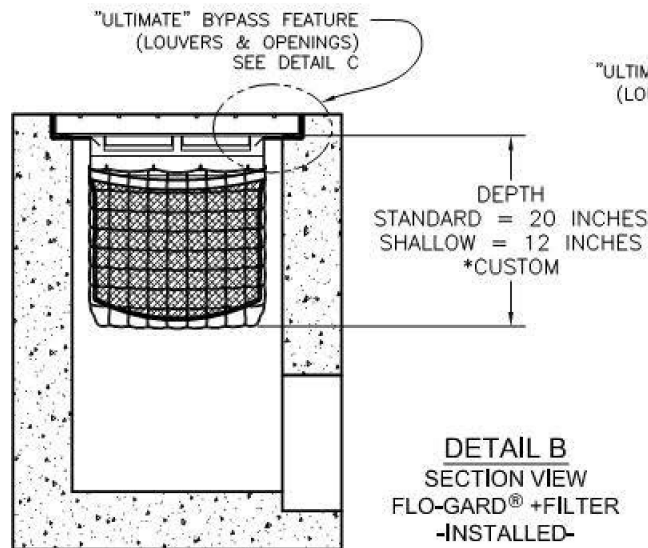
FloGard® +PLUS
CATCH BASIN FILTER INSERT
(Flat Grated Inlet Style)



KriStar Enterprises, Inc.

360 Sutton Place, Santa Rosa, CA 95407
Ph: 800.579.8819, Fax: 707.524.8186, www.krstar.com

DRAWING NO. FGP-0001	REV D	ECO 0059 JPR 12/30/08	DATE JPR 11/3/06	SHEET 1 OF 2
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* MANY OTHER STANDARD & CUSTOM SIZES & DEPTHS AVAILABLE UPON REQUEST.

SPECIFIER CHART								
MODEL NO. STANDARD DEPTH	STANDARD & SHALLOW DEPTH (Data in these columns is the same for both STANDARD & SHALLOW versions)			STANDARD DEPTH -20 Inches-		MODEL NO. SHALLOW DEPTH	SHALLOW DEPTH -12 Inches-	
	INLET ID Inside Dimension (Inch x Inch)	GRATE OD Outside Dimension (Inch x Inch)	TOTAL BYPASS CAPACITY (cu. ft. / sec.)	SOLIDS STORAGE CAPACITY (cu. ft.)	FILTERED FLOW (cu. ft. / sec.)		SOLIDS STORAGE CAPACITY (cu. ft.)	FILTERED FLOW (cu. ft. / sec.)
FGP-12F	12 X 12	12 X 14	2.8	0.3	0.4	FGP-12F8	.15	.25
FGP-1530F	15 X 30	15 X 35	6.9	2.3	1.6	FGP-1530F8	1.3	.9
FGP-16F	16 X 16	16 X 19	4.7	0.8	0.7	FGP-16F8	.45	.4
FGP-1624F	16 X 24	16 X 26	5.0	1.5	1.2	FGP-1624F8	.85	.7
FGP-18F	18 X 18	18 X 20	4.7	0.8	0.7	FGP-18F8	.45	.4
FGP-1820F	16 X 19	18 X 21	5.9	2.1	1.4	FGP-1820F8	1.2	.8
FGP-1824F	16 X 22	18 X 24	5.0	1.5	1.2	FGP-1824F8	.85	.7
FGP-1836F	18 X 36	18 X 40	6.9	2.3	1.6	FGP-1836F8	1.3	.9
FGP-2024F	18 X 22	20 X 24	5.9	1.2	1.0	FGP-2024F8	.7	.55
FGP-21F	22 X 22	22 X 24	6.1	2.2	1.5	FGP-21F8	1.25	.85
FGP-2142F	21 X 40	24 X 40	9.1	4.3	2.4	FGP-2142F8	2.45	1.35
FGP-2148F	19 X 46	22 X 48	9.8	4.7	2.6	FGP-2148F8	2.7	1.5
FGP-24F	24 X 24	24 X 27	6.1	2.2	1.5	FGP-24F8	1.25	.85
FGP-2430F	24 X 30	26 X 30	7.0	2.8	1.8	FGP-2430F8	1.6	1.05
FGP-2436F	24 X 36	24 X 40	8.0	3.4	2.0	FGP-2436F8	1.95	1.15
FGP-2448F	24 X 48	26 X 48	9.3	4.4	2.4	FGP-2448F8	2.5	1.35
FGP-28F	28 X 28	32 X 32	6.3	2.2	1.5	FGP-28F8	1.25	.85
FGP-2440F	24 X 36	28 X 40	8.3	4.2	2.3	FGP-2440F8	2.4	1.3
FGP-30F	30 X 30	30 X 34	8.1	3.6	2.0	FGP-30F8	2.05	1.15
FGP-36F	36 X 36	36 X 40	9.1	4.6	2.4	FGP-36F8	2.65	1.35
FGP-3648F	36 X 48	40 X 48	11.5	6.8	3.2	FGP-3648F8	3.9	1.85
FGP-48F	48 X 48	48 X 54	13.2	9.5	3.9	FGP-48F8	5.45	2.25
FGP-SD24F	24 X 24	28 X 28	6.1	2.2	1.5	FGP-SD24F8	1.25	.85
FGP-1836FGO	18 X 36	20 X 40	6.9	2.3	1.6	FGP-1836F8GO	1.3	.9
FGP-2436FGO	20 X 36	24 X 40	8.0	3.4	2.0	FGP-2436F8GO	1.95	1.15
FGP-48FGO	18 X 48	20 X 54	6.3	2.2	1.5	FGP-48F8GO	1.25	.85

TITLE

FloGard® +PLUS
CATCH BASIN FILTER INSERT
(Flat Grated Inlet Style)



KriStar Enterprises, Inc.

360 Sutton Place, Santa Rosa, CA 95407
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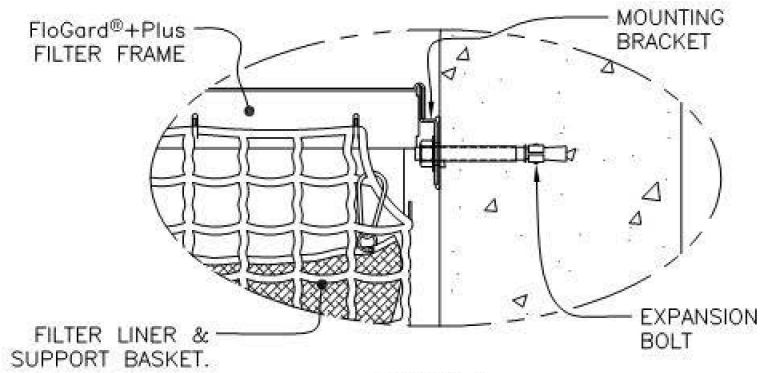
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SPECIFIER CHART

MODEL NO.	Curb Opening Width - W -	Storage Capacity - Cu. Ft. -	Filtered Flow Rate - GPM/CFS -	Bypass Flow Rate - GPM/CFS -
FGP-24CI	2.0' (24")	.95	338 / .75	2,513 / 5.6
FGP-30CI	2.5' (30")	1.20	450 / 1.00	3,008 / 6.7
FGP-36CI	3.0' (36")	1.50	563 / 1.25	3,547 / 7.9
FGP-42CI	3.5' (42")	1.80	675 / 1.50	3,951 / 8.8
FGP-48CI	4.0' (48")	2.10	768 / 1.76	4,445 / 9.9
FGP-5.0CI	5.0' (60")	2.40	900 / 2.00	5,208 / 11.6
FGP-6.0CI	6.0' (72")	3.05	1,126 / 2.51	6,196 / 13.8
FGP-7.0CI	7.0' (84")	3.65	1,350 / 3.01	7,139 / 15.9
FGP-8.0CI	8.0' (96")	4.25	1,576 / 3.51	8,082 / 18.0
FGP-10.0CI	10.0' (120")	4.85	1,800 / 4.01	9,833 / 21.9
FGP-12.0CI	12.0' (144")	6.10	2,252 / 5.02	11,764 / 26.2
FGP-14.0CI	14.0' (168")	7.30	2,700 / 6.02	13,515 / 30.1
FGP-16.0CI	16.0' (192")	8.55	3,152 / 7.02	15,446 / 34.4
FGP-18.0CI	18.0' (216")	9.45	3,490 / 7.78	17,152 / 38.2
FGP-21.0CI	21.0' (252")	10.95	4,050 / 9.02	19,891 / 44.3
FGP-28.0CI	28.0' (336")	14.60	5,400 / 12.03	26,311 / 58.6

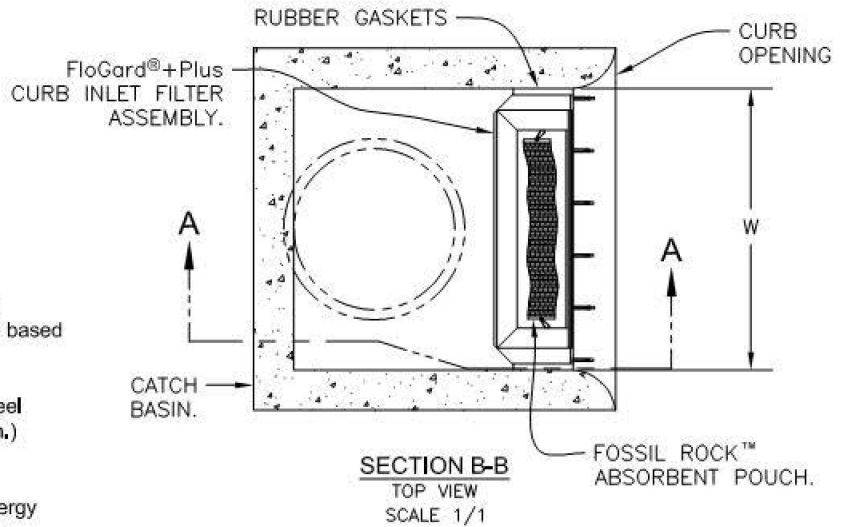
NOTES:

1. FloGard®+PLUS filter Inserts shall be installed across the entire width of curb opening. Storage capacity and clean flow rates are based on full width installation.
2. Filter Insert shall be attached to the catch basin with stainless steel expansion anchor bolts & washers (3/8" x 2-1/2" minimum length.) See detail A.
3. FloGard®+PLUS filter inserts are designed with a debris trap/energy dissipator for the retention of floatables and collected sediments.
4. Filter support frame shall be constructed from stainless steel Type 304.
5. Filter liner shall be constructed from durable polypropylene, woven, monofilament, geotextile. Filter liner shall not allow the retention of water between storm events.
6. Filter Inserts are supplied with "clip-in" filter pouches utilizing FOSSIL ROCK™ filter medium for the collection and retention of petroleum hydrocarbons (oils & greases).
7. FloGard®+PLUS filter Inserts and FOSSIL ROCK™ filter medium pouches must be maintained in accordance with manufacturer recommendations.
8. FloGard +PLUS filter inserts are available in standard lengths of 24", 30", 35", 42" & 48" and may be installed in various length combinations (end to end) to fit length of noted catch basin.
9. Clean flow rates are "calculated" based on liner flow rate of 140 gallons per minute per square foot of material, a factor of .50 has been applied to allow for anticipated sediment & debris loading. An additional safety factor of between .25 & .50 may be applied to allow for site specific sediment loading.
10. Storage capacity reflects maximum solids collection prior to impending "initial" filtering bypass. The "ultimate" high-flow bypass will not become impeded due to maximum solids loading.

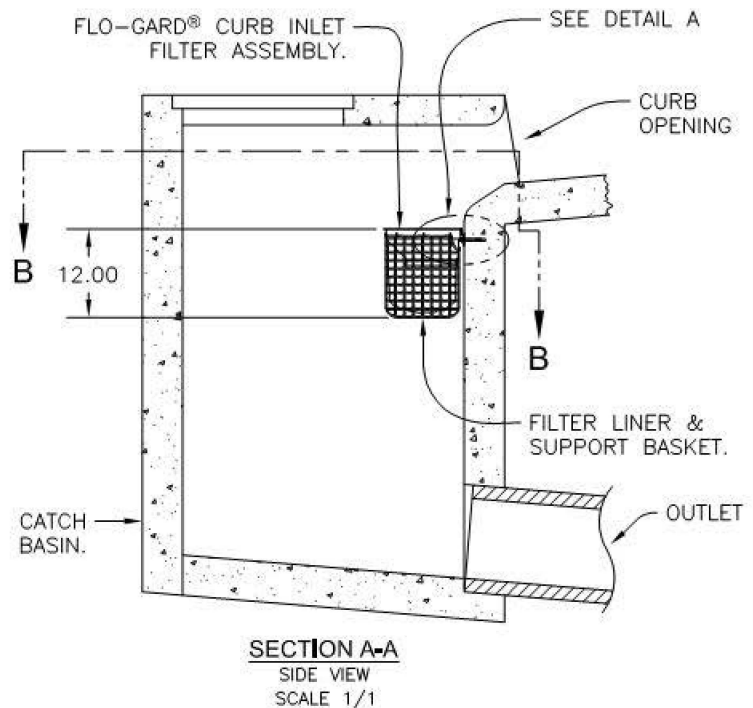


DETAIL A

MOUNTING BRACKET & EXPANSION BOLTS
SEE NOTE 2
SCALE 6/1



SECTION B-B
TOP VIEW
SCALE 1/1



SECTION A-A
SIDE VIEW
SCALE 1/1

TITLE

FloGard® +PLUS
CATCH BASIN FILTER INSERT
(Curb Inlet Style)



KriStar Enterprises, Inc.

360 Sutton Place, Santa Rosa, CA 95407
Ph: 800.579.8819, Fax: 707.524.8186, www.krstar.com

DRAWING NO. FGP-0002	REV D	ECO 0059 JPR 12/30/08	DATE JPR 11/3/06	SHEET 1 OF 1
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Reference A

Geotechnical Report



Sladden Engineering

45090 Golf Center Parkway, Suite F, Indio, CA. 92201 (760) 863-0713 Fax (760) 863-0847
6782 Stanton Avenue, Suite C, Buena Park, CA. 90621 (714) 523-0952 Fax (714) 523-1369
450 Egan Avenue, Beaumont, CA. 92223 (951) 845-7743 Fax (951) 845-8863
800 E. Florida Avenue, Hemet, CA. 92543 (951) 766-8777 Fax (951) 766-8778

August 20, 2019

Project No. 444-19057
19-08-077

Rexford International
11620 Wilshire Boulevard, Suite 1000
Los Angeles, California 90025

Project: Proposed Industrial Buildings
14820 & 14830 Carmenita Road
Norwalk, California

Subject: Percolation/Infiltration Testing for On-Site Storm Water Management

Ref: Geotechnical Investigation report prepared by Sladden Engineering dated August 22, 2019; Project No. 444-19057, Report No. 19-08-076.

In accordance with your request, we have performed percolation/infiltration testing on the subject site to evaluate the infiltration potential of the near surface soil to assist in storm water management system design. It is our understanding that on-site storm water retention/infiltration is proposed for the project.

Percolation testing was performed on August 8, 2019 within two (2) shallow test bores excavated on the site. Testing was performed at a depth of approximately 5.0 and 8.5 feet below existing grade for P-1 and P-2, respectively. The approximate locations of the tests are presented on the attached Test Location Plan (Figure 1). Testing was performed by placing water within the test bores and recording the drop in the water surface with time. Testing was performed in general accordance with the *United States Bureau of Reclamation (BOR) Procedure 7300-89 (1999)*. Test results are summarized in the following table.

PERCOLATION/INFILTRATION TEST RESULTS

Test Number No.	Depth (ft)	Percolation Rate (in/hr)	Design Infiltration Rate (in/hr) (Porchet's Method)
P-1	5.0	9.0	1.70
P-2	8.5	5.5	1.52

The percolation rates determined represent ultimate field rates that do not include a safety factor. The corresponding infiltration rates were determined using the Porchet Method. An appropriate safety factor should be applied to account for long-term saturation, subsoil inconsistencies and the potential for silting of the percolating soil. The safety factor should be determined with consideration to other factors in the storm water retention system design (specifically storm water volume estimates) and the safety factors associated with these design components.

Groundwater was not encountered within our exploratory boreholes that extended to a maximum depth of approximately 51.5 feet on August 1, 2019. The presence of groundwater should not impact the design or performance of the storm water retention system.

If you have any questions regarding this memo, please contact the undersigned.

Respectfully submitted,
SLADDEN ENGINEERING

James W. Minor III
Senior Geologist



Brett L. Anderson
Principal Engineer

Copies: 4 / Addressee

PRINCE STREET
DUBLIN



TEST LOCATION PLAN

↑

444-19057

19-08-077

August 20, 2019



STORM WATER PERCOLATION DATA SHEET

Project: Proposed Industrial Building
Test Hole: P-1
Depth of Test Hole: 5'
Check for Sandy Soil Criteria Tested by: Robert
Actual Percolation Tested by: Robert

Job No: 444-19057
Date Excavated: 8/1/19
Soil Classification: SM
Date: 8/8/19
Date: _____

Reading Number	Time of Reading	Time Interval Minutes	Total Depth of Hole (ft)	Initial Water Level (in)	Final Water Level (in)	Difference Water Level (in)
A	8:30	30	5.0	8.0	0.0	8.0
B	9:00	30	5.0	8.5	1.0	7.5
1.	9:30	30	5.0	8.5	1.5	7.0
2.	10:00	30	5.0	8.0	3.0	5.0
3.	10:30	30	5.0	8.0	3.0	5.0
4.	11:00	30	5.0	8.0	3.0	5.0
5.	11:30	30	5.0	8.0	3.5	4.5
6.	12:00	30	5.0	8.0	3.5	4.5
7.	12:30	30	5.0	8.0	3.5	4.5
8.						
9.						
10.						
11.						
12.						

STORM WATER PERCOLATION DATA SHEET

Project: Proposed Industrial Building
Test Hole: P-2
Depth of Test Hole: 8.5 feet
Check for Sandy Soil Criteria Tested by: Brian
Actual Percolation Tested by: Brian

Job No: 444-19057
Date Excavated: 8/1/19
Soil Classification: SM
Date: 8/8/19
Date: _____

Reading Number	Time of Reading	Time Interval Minutes	Total Depth of Hole (ft)	Initial Water Level (in)	Final Water Level (in)	Difference Water Level (in)
A	8:30	30	8.5	8.0	4.0	4.0
B	9:00	30	8.5	8.0	4.0	4.0
1.	10:00	60	8.5	8.0	2.5	5.5
2.	11:00	60	8.5	8.0	2.5	5.5
3.	12:00	60	8.5	8.0	2.5	5.5
4.	1:00	60	8.5	8.0	2.5	5.5
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						

PERCOLATION RATE CONVERSION (PORCHET METHOD)

$$I_t = \frac{\Delta H \cdot 60 \cdot R}{\Delta t (r + 2H_{avg})}$$

Δt (minutes)

D_f (Final Depth to water)

r (hole radius in inches)

D_0 (Initial Depth to water)

D_t (Total Depth of test hole)

H_0 (initial height of water at selected time interval)

$$H_0 = D_t - D_0$$

H_f (final height of water at the selected time interval)

$$H_f = D_t - D_f$$

ΔH (change in head over the time interval)

$$\Delta H = H_0 - H_f$$

H_{avg} (average head height over the time interval)

$$H_{avg} = (H_0 + H_f) / 2$$

Test Hole: P-1

$$\Delta t = 30$$

$$D_f = 55.5$$

$$r = 4.00$$

$$D_0 = 52$$

$$D_t = 60.0$$

$$H_0 = 8$$

$$H_f = 4.5$$

$$\Delta H = 3.50$$

$$H_{avg} = 6.25$$

$$I_t = 1.70 \text{ in/hr}$$

PERCOLATION RATE CONVERSION (PORCHET METHOD)

$$I_t = \frac{\Delta H \cdot 60 \cdot R}{\Delta t (r + 2H_{avg})}$$

Δt (minutes)

D_f (Final Depth to water)

r (hole radius in inches)

D_0 (Initial Depth to water)

D_t (Total Depth of test hole)

H_0 (initial height of water at selected time interval)

$$H_0 = D_t - D_0$$

H_f (final height of water at the selected time interval)

$$H_f = D_t - D_f$$

ΔH (change in head over the time interval)

$$\Delta H = H_0 - H_f$$

H_{avg} (average head height over the time interval)

$$H_{avg} = (H_0 + H_f) / 2$$

Test Hole: P-2

$\Delta t =$	60
$D_f =$	99.5
$r =$	4.00
$D_0 =$	94
$D_t =$	102.0
$H_0 =$	8
$H_f =$	2.5
$\Delta H =$	5.50
$H_{avg} =$	5.25

$I_t = 1.52 \text{ in/hr}$

GEOTECHNICAL INVESTIGATION
PROPOSED NEW WAREHOUSE BUILDING
14820 & 14830 CARMENITA ROAD
NORWALK, CALIFORNIA

-Prepared By-

Sladden Engineering

6782 Stanton Avenue, Suite C
Buena Park, California 90621
(714) 523-0952



Sladden Engineering

45-090 Golf Center Parkway, Suite F, Indio, CA 92201 (760) 772-3893 Fax (760) 772-3895
6782 Stanton Avenue, Suite C, Buena Park, CA 90621 (714) 523-0952 Fax (714) 523-1369
450 Egan Avenue, Beaumont, CA 92223 (951) 845-7743 Fax (951) 845-8863
800 E. Florida Avenue, Hemet, 92543 (951) 766-8777 Fax (951) 766-8778

August 23, 2019

Project No. 444-19057
19-08-076

Rexford Industrial
11620 Wilshire Boulevard, Suite 1000
Los Angeles, California 90025

Subject: Geotechnical Investigation

Project: Proposed New Warehouse Building
14820 & 14830 Carmenita Road
Norwalk, California

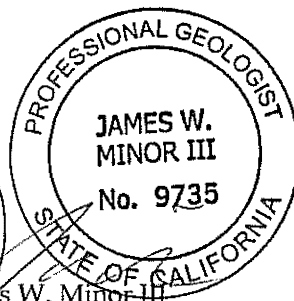
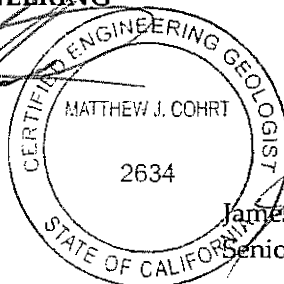
Sladden Engineering is pleased to present the results of our geotechnical investigation performed for the new warehouse building proposed for the subject site located at 14820 & 14830 Carmenita Road in the City of Norwalk, California. Our services were completed in accordance with our proposal for geotechnical engineering services dated May 24, 2019 and your authorization to proceed with the work. The purpose of our investigation was to explore the subsurface conditions at the site in order to provide recommendations for foundation design and site preparation. Evaluation of environmental issues and hazardous wastes was not included within the scope of services provided.

The opinions, recommendations and design criteria presented in this report are based on our field exploration program, laboratory testing and engineering analyses. Based on the results of our investigation, it is our professional opinion that the proposed project should be feasible from a geotechnical perspective provided that the recommendations presented in this report are implemented into design and carried out through construction.

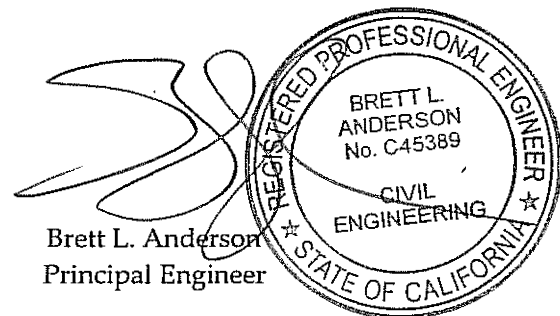
We appreciate the opportunity to provide service to you on this project. If you have any questions regarding this report, please contact the undersigned.

Respectfully submitted,
SLADDEN ENGINEERING

Matthew J. Cohrt
Principal Geologist



James W. Minor III
Senior Geologist



Brett L. Anderson
Principal Engineer

SER/jwm
Copies: 4/Addressee

GEOTECHNICAL INVESTIGATION
PROPOSED NEW WAREHOUSE BUILDING
14820 & 14830 CARMENITA ROAD
NORWALK, CALIFORNIA

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APPENDIX C-	Seismic Design Map and Report Deaggregation Output
APPENDIX D -	Seismic Settlement Analysis

INTRODUCTION

This report presents the results of the geotechnical investigation performed by Sladden Engineering (Sladden) for the new warehouse building proposed for the subject site located at 14820 & 14830 Carmenita Road in the City of Norwalk, California. The site is located at approximately 33.8964 degrees North latitude and 118.0435 degrees West longitude. The approximate location of the site is indicated on the Site Location Map (Figure 1).

Our investigation was conducted in order to evaluate the engineering properties of the subsurface materials, to evaluate their *in-situ* characteristics, and to provide engineering recommendations and design criteria for site preparation, foundation design and the design of various site improvements. This study also includes a review of published and unpublished geotechnical and geological literature regarding seismicity at and near the subject site.

PROJECT DESCRIPTION

Based on the provided site plan (Rexford Industrial, 2019) it is our understanding that the proposed project will consist of demolishing two existing structures and constructing a new warehouse building on the project site. In addition, Sladden anticipates that the project will include paved parking areas, exterior concrete flatwork, underground utilities, landscape areas and various other improvements. For our analyses we expect that the proposed new industrial/warehouse building will be of reinforced concrete tilt-up construction supported on conventional shallow spread footings.

Based on the relatively level nature of the site, it appears that grading will consist of minor cuts and fill placement in order to achieve the design elevations and to provide adequate gradients for site drainage. This does not include remedial grading consisting of the removal and re-compaction of the artificial fill soil and the primary foundation bearing soil within the new building areas. Upon completion of the precise grading plans, Sladden should be retained in order to ensure that the recommendations presented within in this report are incorporated into the design of the proposed project.

Structural foundation loads were not available at the time of this report. Based on our experience with concrete tilt-up structures, we expect that isolated column loads will be less than 90 kips and continuous wall loads will be less than 6.0 kips per linear foot. If these assumed loads vary significantly from the actual loads, we should be consulted to verify the applicability of the recommendations provided.

SCOPE OF SERVICES

The purpose of our investigation was to determine specific engineering characteristics of the surface and near surface soil in order to develop foundation design criteria and recommendations for site preparation. Exploration of the site was achieved by drilling six (6) exploratory boreholes to depths between approximately 10.0 and 51.5 feet below the existing ground surface (bgs). Specifically, our site characterization consisted of the following tasks:

- Site reconnaissance to assess the existing surface conditions on and adjacent to the site.
- The excavation of six (6) exploratory boreholes to depths between approximately 10.0 and 51.5 feet bgs in order to characterize the subsurface soil conditions. Representative samples of the soil were classified in the field and retained for laboratory testing and engineering analyses.
- The performance of laboratory testing on selected samples to evaluate their engineering characteristics.
- The review of geologic literature with respect to potential geologic hazards.
- The performance of engineering analyses to develop recommendations for foundation design and site preparation.
- The preparation of this report summarizing our work at the site.

SITE CONDITIONS

The site of the proposed new warehouse building is located at 14820 & 14830 Carmenita Road in the City of Norwalk, California. The project site is currently occupied by two commercial buildings. At the time of our investigation, the commercial building located on the eastern portion of the site was occupied by an RV Storage facility. The building located within the western portion of the site was unoccupied. The remainder of the properties were occupied by paved parking areas .

The site is bounded by Excelsior Drive to the south and by existing commercial facilities to the north, east and west.

The project site is relatively level throughout with minor surface gradients related to drainage. According to the USGS (2015), the site is at an approximate elevation of 80 feet above mean sea level (MSL).

No ponding water or surface seeps were observed at or near the site during our investigation. Site drainage is controlled by surface flow, infiltration and through City or County maintained storm drains located along nearby streets.

GEOLOGIC SETTING

The project site is located in the Peninsular Ranges Physiographic Province of California. The Peninsular Ranges are mountainous areas that extend from the western edge of the continental borderland to the Salton Trough and from the Transverse Ranges Physiographic Province in the north to the tip of Baja California in the south. The province is characterized by elongated, northwest-southeast trending mountain ranges and valleys and is truncated at its northern margin by the east-west grain of the Transverse Ranges.

The site has been mapped to be immediately underlain by Quaternary-age older alluvial materials (Qal). The geologic setting for the site and site vicinity is presented on the Regional Geologic Map (Figure 2).

SUBSURFACE CONDITIONS

The subsurface conditions at the site were investigated by drilling six (6) exploratory boreholes throughout the project site. The approximate locations of the boreholes are illustrated on the Borehole Location Plan (Figure 3). The boreholes were advanced using a truck-mounted Mobile B-61 drill rig equipped with 8-inch outside diameter (O.D.) hollow stem augers. A representative of Sladden was on-site to log the materials encountered and retrieve samples for laboratory testing and engineering analyses.

During our field investigation, artificial fill soil was encountered to a depth of approximately five (5) feet bgs. Underlying the artificial fill soil and extending to maximum depths explored, native earth materials were encountered. Generally, the native earth materials consisted of sandy clay (CL/CH) with minor portions of sand (SP), silty sand (SM) and clayey sand (SC). The native soil appeared grayish brown to olive brown in in-situ color. Generally, granular layers appeared loose to dense and fine -grained. Cohesive layers appeared medium stiff to stiff and exhibited generally low to high plasticity characteristics.

The final logs represent our interpretation of the contents of the field logs, and the results of the laboratory observations and tests of the field samples. The final logs are included in Appendix A of this report. The stratification lines represent the approximate boundaries between soil types although the transitions may be gradual.

Groundwater was not encountered within our bores that extended to the maximum explored depth of approximately 51.5 feet bgs. Based upon our bores, it is our opinion that groundwater is at a sufficient depth as not to be a factor during construction of the proposed structures. However, following periods of heavy or prolonged rainfall, perched groundwater may be encountered, but will likely dissipate rapidly.

SEISMICITY AND FAULTING

The southwestern United States is a tectonically active and structurally complex region, dominated by northwest trending dextral faults. The faults of the region are often part of complex fault systems, composed of numerous subparallel faults that splay or step from the main fault traces. Strong seismic shaking could be produced by any of these faults during the design life of the proposed project.

We consider the most significant geologic hazard to the project to be the potential for moderate to strong seismic shaking that is likely to occur during the design life of the project. The proposed project is located in the highly seismic Southern California region within the influence of several fault systems that are considered to be active or potentially active. An active fault is defined by the State of California as a "sufficiently active and well defined fault" that has exhibited surface displacement within the Holocene epoch (about the last 11,000 years). A potentially active fault is defined by the State as a fault with a history of movement within Pleistocene time (between 11,000 and 1.6 million years ago).

Table 1 lists the closest known active faults that were generated in part using the EQFAULT computer programs (Blake, 2000), as modified using the fault parameters from The Revised 2002 California Probabilistic Seismic Hazard Maps (Cao et al, 2003). This table does not identify the probability of reactivation or the on-site effects from earthquakes occurring on any of the other faults in the region.

TABLE 1
CLOSEST KNOWN ACTIVE FAULTS

Fault Name	Distance (Km)	Maximum Event
Elysian Park Thrust	<2.0	6.7
Compton Thrust	5.7	6.8
Whittier	10.1	6.8
Newport-Inglewood (L.A. Basin)	15.3	7.1
San Jose	22.0	6.4
Chino – Central Avenue (Elsinore)	24.3	6.7
Palos Verdes	26.5	7.1
Raymond	27.0	6.5
Verdugo	28.0	6.9
Sierra Madre	29.8	7.2
Hollywood	30.2	6.4
Clamshell-Sawpit	31.5	6.5

2016 CBC SEISMIC DESIGN PARAMETERS

Sladden has reviewed the 2016 California Building Code (CBC) and summarized the current seismic design parameters for the proposed structures. The seismic design category for a structure may be determined in accordance with Section 1613 of the 2016 CBC or ASCE7. According to the 2016 CBC, Site Class D may be used to estimate design seismic loading for the proposed structures. The 2016 CBC Seismic Design Parameters are summarized below (SEAC, 2019). The project Design Map Reports are included within Appendix C.

Risk Category (Table 1.5-1): II

Site Class (Table 1613.3.2): D

S_s (Figure 1613.3.1): 1.857g

S_1 (Figure 1613.3.1): 0.666g

F_a (Table 1613.3.3(1)): 1.0

F_v (Table 1613.5.3(2)): 1.5

S_{ms} (Equation 16-37 $\{F_a \times S_s\}$): 1.857g

S_{m1} (Equation 16-38 $\{F_v \times S_1\}$): 0.999g

SDS (Equation 16-39 $\{2/3 \times S_{ms}\}$): 1.238g

SD_1 (Equation 16-40 $\{2/3 \times S_{m1}\}$): 0.666g

Seismic Design Category: D

GEOLOGIC HAZARDS

The subject site is located in an active seismic zone and will likely experience strong seismic shaking during the design life of the proposed project. In general, the intensity of ground shaking will depend on several factors including: the distance to the earthquake focus, the earthquake magnitude, the response characteristics of the underlying materials, and the quality and type of construction. Geologic hazards and their relationship to the site are discussed below.

- I. Surface Rupture. Surface rupture is expected to occur along preexisting, known active fault traces. However, surface rupture could potentially splay or step from known active faults or rupture along unidentified traces. Based on review of Jennings (1994), CDOC (2019) and Jennings and Strand (1969), known faults are not mapped on the site. In addition, no signs of active surface faulting were observed during our review of non-stereo digitized photographs of the site and site vicinity (Google, 2019). Finally, no signs of active surface rupture or secondary seismic effects (lateral spreading, lurching etc.) were identified on-site during our field investigation. Therefore, it is our opinion that risks associated with primary surface ground rupture should be considered "low".
- II. Ground Shaking. The site has been subjected to past ground shaking by faults that traverse through the region. Strong seismic shaking from nearby active faults is expected to produce strong seismic shaking during the design life of the proposed project. A probabilistic approach was employed to estimate the peak ground acceleration (a_{max}) that could be experienced at the site. Based on the USGS Interactive Deaggregation (USGS, 2019) and shear wave velocity of 259 m/s the site could be subjected to ground motions on the order of 0.487g. The peak ground acceleration at the site is judged to have a 475 year return period and a 10 percent chance of exceedence in 50 years.

- III. Liquefaction. Liquefaction is the process in which loose, saturated granular soil loses strength as a result of cyclic loading. The strength loss is a result of a decrease in granular sand volume and a positive increase in pore pressures. Generally, liquefaction can occur if all of the following conditions apply: liquefaction-susceptible soil, groundwater within a depth of 50 feet or less, and strong seismic shaking.
- We have performed seismic settlement calculations utilizing a magnitude of 7.29 (USGS, 2008) and peak ground acceleration of 0.711g (PGAm). Historic high and anticipated high groundwater depths were determined to be approximately 8.0 feet bgs (CDMG, 1998). The seismic settlement calculations are included within Appendix D. Calculations indicate potential total seismic settlements of up to 3.90 & 2.66 inches for BH-2 & BH-5, respectively. The potential seismically related differential settlements are expected to be less than 2.0 inches over a horizontal distance of 200 feet. Based upon the general uniformity of the soil and groundwater conditions underlying the site, we expect the maximum differential settlement to occur over a horizontal distance of approximately 100 feet. Accordingly, risks associated with seismic settlement should be considered "in design".
- IV. Tsunamis and Seiches. Because the site is situated at an elevated inland location and is not immediately adjacent to any impounded bodies of water, risk associated with tsunamis and seiches is considered negligible.
- V. Slope Failure, Landsliding, Rock Falls. The site is situated on relatively level ground and is not immediately adjacent to any slopes or hillsides that could be potentially susceptible to slope instability. According to CDMG (1999) the site is not situated within a Seismic Hazard Zone for slope instability. No signs of slope instability in the form of landslides, rock falls, earth flows or slumps were observed at or near the subject site during our investigation. As such, risks associated with slope instability should be considered "negligible".
- VI. Expansive Soil. Expansion Index testing of select samples was performed in order to evaluate the expansive potential of the materials underlying the site. Based the results of our laboratory testing (EI= 3) the materials underlying the site are considered to have a "very low" expansion potential. Accordingly, risk of structural damage caused by volumetric changes in the subgrade soil should be minimal. Slabs on grade should be designed based upon post-grading test results.
- VII. Settlement. Static settlement resulting from the anticipated foundation loads should be minimal provided that the recommendations included in this report are considered in foundation/slab design and construction. The ultimate static settlement is estimated to be less than one inch when using the structural design criteria provided herein. As a practical matter, differential settlement between footings can be assumed as one-half of the total settlement.
- VIII. Flooding and Erosion. No signs of flooding or erosion were observed during our field investigation. However, risks associated with flooding and erosion should be evaluated and mitigated by the project design Civil Engineer.

CONCLUSIONS

Based on the results of our investigation, it is our professional opinion that the project should be feasible from a geotechnical perspective provided that the recommendations provided in this report are incorporated into design and carried out through construction. The main geotechnical concerns are the presence of existing improvements and artificial fill material throughout the subject site along with the potential seismic settlements.

Because of the presence of existing buildings, site improvements and artificial fill, remedial grading including over-excavation and re-compaction is recommended for the proposed building areas. We recommend that remedial grading within the proposed building areas include over-excavation and/or re-compaction of the artificial fill and primary foundation bearing soil. Specific recommendations for site preparation are presented in the Earthwork and Grading section of this report.

Groundwater was not encountered within our bores that extended to a maximum depth of 51.5 feet bgs. Based on the current conditions, it is our opinion that groundwater should not be a factor during the construction of the proposed project.

Caving did occur to varying degrees within each of our exploratory bores and the surface soil may be susceptible to caving within deeper excavations. All excavations should be constructed in accordance with the normal CalOSHA excavation criteria. On the basis of our observations of the materials encountered, we anticipate that the subsoil will conform to that described by CalOSHA as Type B or C. Soil conditions should be verified in the field by a "Competent person" employed by the Contractor.

In accordance with Section 111 of the Los Angeles County Building Code, it is our opinion that the construction of the proposed structures and the related site grading will not negatively impact the project site or the adjacent properties. The proposed development will not be subject to landslides, slippage or settlements provided that the recommendations included in this report are incorporated into design and construction.

The following recommendations present more detailed design criteria that have been developed on the basis of our field and laboratory investigation.

EARTHWORK AND GRADING

All earthwork including excavation, backfill and preparation of the surface soil, should be performed in accordance with the geotechnical recommendations presented in this report and portions of the local regulatory requirements, as applicable. All earth work should be performed under the observation and testing of a qualified geotechnical consultant. The following geotechnical recommendations for the proposed project are based on observations from the field investigation program, laboratory testing and geotechnical engineering analyses.

- a. Stripping. Areas to be graded should be cleared of the existing buildings, pavement, surface improvements, and underground utilities. All areas scheduled to receive fill should be cleared of surface improvements and any unsuitable matter. The unsuitable materials should be removed off-site. Voids left by obstructions should be properly backfilled in accordance with the compaction recommendations of this report.
- b. Preparation of New Building Areas. In order to provide uniform foundation bearing conditions, we recommend over-excavation and re-compaction throughout the new building areas. The artificial fill and native low density near surface soil should be removed to competent native soil or to a minimum depth of at least 3 feet below the bottom of the footings, whichever is deeper. Remedial grading should extend laterally a minimum of 5 feet beyond perimeter wall foundations where possible. The exposed surface soil should then be scarified, moisture conditioned to within two percent of optimum moisture content, and compacted to at least 90 percent relative compaction.
- c. Compaction. Soil to be used as engineered fill should be free of organic material, debris, and other unsuitable material, and should not contain irreducible matter greater than 8 inches in maximum dimension. All fill materials should be placed in thin lifts not exceeding six inches in a loose condition. If import fill is required, the material should be of a low to non-expansive nature and should meet the following criteria:

Plastic Index	Less than 12
Liquid Limit	Less than 35
Percent Soil Passing #200 Sieve	Between 15% and 35%
Maximum Aggregate Size	3 inches

The subgrade and all fill material should be compacted with acceptable compaction equipment, to at least 90 percent relative compaction. The bottom of the exposed subgrade should be observed by a representative of Sladden Engineering prior to fill placement. The previously removed soil may then be replaced in thin lifts at near optimum moisture content and compacted to at least 90 percent relative compaction. Compaction testing should be performed on all lifts in order to ensure proper placement of the fill materials. Table 2 provides a summary of the excavation and compaction recommendations.

TABLE 2
SUMMARY OF RECOMMENDATIONS

*Remedial Grading	Excavation and recompaction within the building envelope and extending laterally at least 5 feet beyond the building limits and to a minimum depth of 3 feet below the bottom of the footings.
Native / Import Engineered Fill	Place in thin lifts not exceeding 6 inches in a loose condition, compact to a minimum of 90 percent relative compaction.
Asphalt Concrete Sections	Compact the top 12 inches to at least 95 percent compaction within 2 percent of optimum moisture content.

*Actual depth may vary and should be determined by a representative of Sladden Engineering in the field during construction.

- d. Shrinkage and Subsidence. Volumetric shrinkage of the material that is excavated and replaced as controlled compacted fill should be anticipated. We estimate that this shrinkage could vary from 10 to 15 percent. Subsidence of the surfaces that are scarified and compacted should be between 1 and 2 tenths of a foot. This will vary depending upon the type of equipment used, the moisture content of the soil at the time of grading and the actual degree of compaction attained. The losses associated with the removal of unsuitable materials cannot be calculated at this time but could be significant.

FOUNDATIONS: CONVENTIONAL SHALLOW SPREAD FOOTINGS

Conventional spread footings may be used for the support of the proposed industrial/warehouse building. Footings should extend at least 18 inches beneath lowest adjacent grade. Isolated square or rectangular footings at least 2 feet square and continuous footings at least 12 inches wide may be designed using allowable bearing pressures of 2000 and 1800 pounds per square foot, respectively. The allowable bearing pressure may be increased by approximately 250 psf for each additional 1 foot of width and 250 psf for each additional 6 inches of depth, if desired. The maximum allowable bearing pressure should be limited to 3000 psf unless confirmed by Sladden Engineering subsequent to performing specific settlement calculations. The allowable bearing pressures are for dead and frequently applied live loads and may be increased by 1/3 to resist wind, seismic or other transient loading.

The allowable bearing pressure may be increased by one-third when considering transient live loads, including seismic and wind forces. All footings should be reinforced in accordance with the project structural engineer's recommendations.

Resistance to lateral loads may be provided by a combination of friction acting at the base of foundations and passive earth pressure along the sides of the foundations. A coefficient of friction of 0.40 between soil and concrete may be used for dead load forces only. A passive earth pressure of 250 pounds per square foot, per foot of depth, may be used for the sides of footings that are placed against properly compacted native soil. Passive earth pressure should be ignored within the upper 1 foot except where confined.

All footing excavations should be observed by a representative of the project geotechnical consultant to verify adequate embedment depths prior to placement of forms, steel reinforcement or concrete. The excavations should be trimmed neat, level and square. All loose, disturbed, sloughed or moisture-softened soils and/or any construction debris should be removed prior to concrete placement. Excavated soil generated from footing and/or utility trenches should not be stockpiled within the building envelope or in areas of exterior concrete flatwork.

RETAINING WALLS

Retaining walls may be required to accomplish the proposed construction. Cantilever retaining walls may be designed using "active" pressures. Active pressures may be estimated using an equivalent fluid weight of 40 pcf for native backfill soil with level free-draining backfill conditions. "At Rest" pressures should be utilized for restrained walls. At rest pressures may be estimated using an equivalent fluid weight of 60 pcf for native backfill soil with level drained backfill conditions.

SLABS-ON-GRADE

In order to reduce the risk of heave, cracking and settlement, concrete slabs-on-grade must be placed on properly compacted fill as outlined in the previous sections of this report. The slab subgrades should remain near optimum moisture content and should not be permitted to dry prior to concrete placement. Slab subgrade should be firm and unyielding. Disturbed soil should be removed and then replaced and compacted to a minimum of 90 percent relative compaction.

Slabs with moisture sensitive surfaces should be underlain with a moisture vapor barrier consisting of a polyvinyl chloride membrane such as 10-mil Visqueen. All laps within the membrane should be sealed and at least 2 inches of clean sand should be placed over the membrane to promote uniform curing of the concrete and to limit damage. To reduce the potential for punctures, the membrane should be placed on a pad surface that has been graded smooth without any sharp protrusions. If a smooth surface can not be achieved by grading, consideration should be given to placing a 1-inch thick leveling course of sand across the pad surface prior to placement of the membrane.

PRELIMINARY PAVEMENT DESIGN

Asphalt concrete pavements should be designed in accordance with Topic 610 of the Caltrans Highway Design Manual based on R-Value and Traffic Index. The R-Value of the near surface soil was determined to be 67 by exudation and 65 by expansion. On-site soil and any imported soil should be tested after grading for R-Value prior to establishing final pavement design sections. For preliminary pavement design, Traffic Indices (TI) of 5.0 and 6.5 were used for the light duty and heavy duty pavements, respectively. We assumed Asphalt Concrete (AC) over Class II Aggregate Base (AB). The preliminary flexible pavement layer thickness is as follows:

RECOMMENDED ASPHALT PAVEMENT SECTION LAYER THICKNESS		
Pavement Material	Recommended Thickness	
	TI=6.0	TI=7.5
Asphalt Concrete Surface Course	3.0 inches	4.0 inches
Class II Aggregate Base Course	6.0 inches	6.0 inches
Compacted Subgrade Soil	12.0 inches	12.0 inches

Asphalt concrete should conform to applicable Sections of the latest editions of the Standard Specifications for Public Works Construction (Greenbook). Caltrans class II aggregate base should conform to Section 26 of the Caltrans Standard Specifications or Greenbook, latest edition. The aggregate base course should be compacted to at least 95 percent of the maximum dry density as determined by ASTM Test Method D 1557.

We expect that concrete pavement will be used for loading dock areas and possibly some on-site pavement areas. A concrete pavement section of 6.0 inches of Portland Cement Concrete (PCC) on compacted native soil should be adequate for the on-site concrete pavement subject to light vehicle traffic and occasional heavy truck traffic. In areas where repeated and regular heavy truck traffic is expected, the concrete pavement section should be increased to 8.0 inches of PCC on compacted native subgrade soil. Properly spaced and constructed control joints including expansion joints and contraction joints should be incorporated into concrete pavement design to accommodate temperature and shrinkage related cracking. Joint spacing and joint patterns should be established based upon Portland Cement Association (PCA) and American Concrete Institute (ACI) guidelines.

CORROSION SERIES

The soluble sulfate concentrations of the surface soil were determined to be 280 parts per million (ppm). The soil is considered to have a "negligible" corrosion potential with respect to concrete. The use of Type V cement and special sulfate resistant concrete mixes should not be necessary. However, the soluble sulfate concentration should be reevaluated after the grading and compaction work is completed. Appropriate concrete mix designs should be established based upon post-grading test results.

The pH level of the surface soil was 9.7. The soluble chloride concentration was determined to be 60. The soil is considered to have "negligible" corrosion potential with respect to normal grade steel. The minimum resistivity of the surface soil was found to be 5,500 ohm-cm, that suggests the site soil is considered to be "low" corrosion potential with respect to ferrous metal installations.

UTILITY TRENCH BACKFILL

All utility trench backfill should be compacted to a minimum relative compaction of 90 percent. Trench backfill materials should be placed in lifts no greater than six inches in a loose condition, moisture conditioned (or air-dried) as necessary to achieve near optimum moisture content and then mechanically compacted in place to a minimum relative compaction of 90 percent. A representative of the project geotechnical consultant should test the backfills to verify adequate compaction.

EXTERIOR CONCRETE FLATWORK

To minimize cracking of concrete flatwork, the subgrade soil below concrete flatwork areas should be compacted to a minimum relative compaction of 95 percent. A representative of the project geotechnical consultant should observe and verify the density and moisture content of the soil.

DRAINAGE

All final grades should be provided with positive gradients away from foundations to provide rapid removal of surface water runoff to an adequate discharge point. No water should be allowed to be pond on or immediately adjacent to foundation elements. In order to reduce water infiltration into the subgrade soil, surface water should be directed away from building foundations to an adequate discharge point. Subgrade drainage should be evaluated upon completion of the precise grading plans and in the field during grading.

LIMITATIONS

The findings and recommendations presented in this report are based upon interpolation of the soil conditions between the exploratory bore locations and extrapolation of these conditions throughout the proposed building areas. Should conditions encountered during grading appear different than those indicated in this report, this office should be notified.

The use of this report by other parties or for other projects is not authorized. The recommendations of this report are contingent upon monitoring of the grading operation by a representative of Sladden Engineering. All recommendations are considered to be tentative pending our review of the grading operation and additional testing, if indicated. If others are employed to perform any soil testing, this office should be notified prior to such testing in order to coordinate any required site visits by our representative and to assure indemnification of Sladden Engineering.

We recommend that a pre-job conference be held on the site prior to the initiation of site grading. The purpose of this meeting will be to assure a complete understanding of the recommendations presented in this report as they apply to the actual grading performed.

ADDITIONAL SERVICES

Once completed, final project plans and specifications should be reviewed by use prior to construction to confirm that the full intent of the recommendations presented herein have been applied to design and construction. Following review of plans and specifications, observation should be performed by the Soil Engineer during construction to document that foundation elements are founded on/or penetrate into the recommended soil, and that suitable backfill soil is placed upon competent materials and properly compacted at the recommended moisture content.

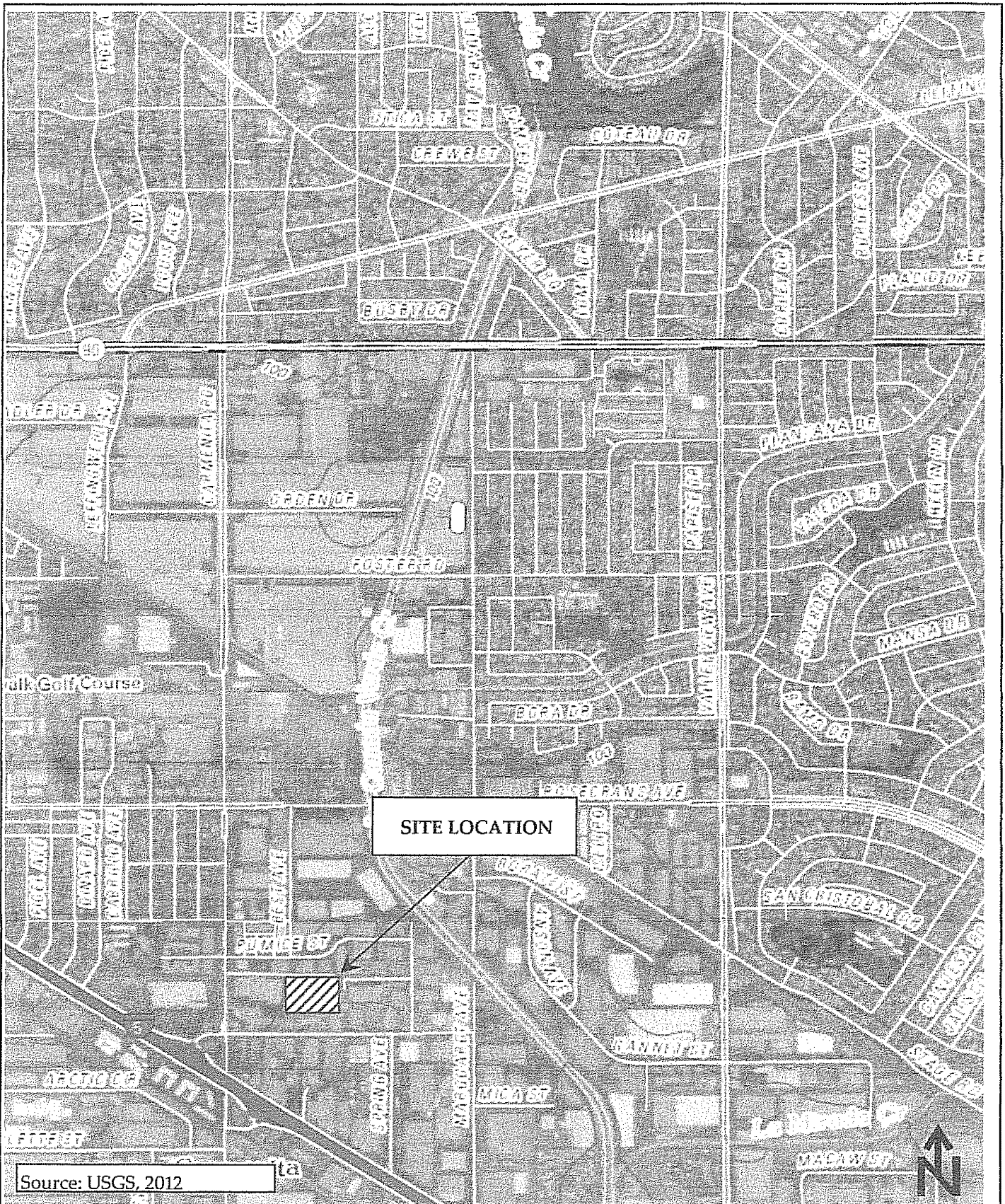
Tests and observations should be performed during grading by the Soil Engineer or his representative in order to verify that the grading is being performed in accordance with the project specifications. Field density testing shall be performed in accordance with acceptable ASTM test methods. The minimum acceptable degree of compaction should be 90 percent for subgrade soils and 95 percent for Class II aggregate base as obtained by the ASTM D1557-91 test method. Where testing indicates insufficient density, additional compactive effort shall be applied until retesting indicates satisfactory compaction.

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FIGURES

SITE LOCATION MAP
REGIONAL GEOLOGIC MAP
BOREHOLE LOCATION PLAN



SITE LOCATION MAP

FIGURE

1



Sladden Engineering

Project Number:

444-19057

Report Number:

19-08-076

Date:

August 23, 2019



REGIONAL GEOLOGIC MAP

FIGURE

2



Sladden Engineering

Project Number:

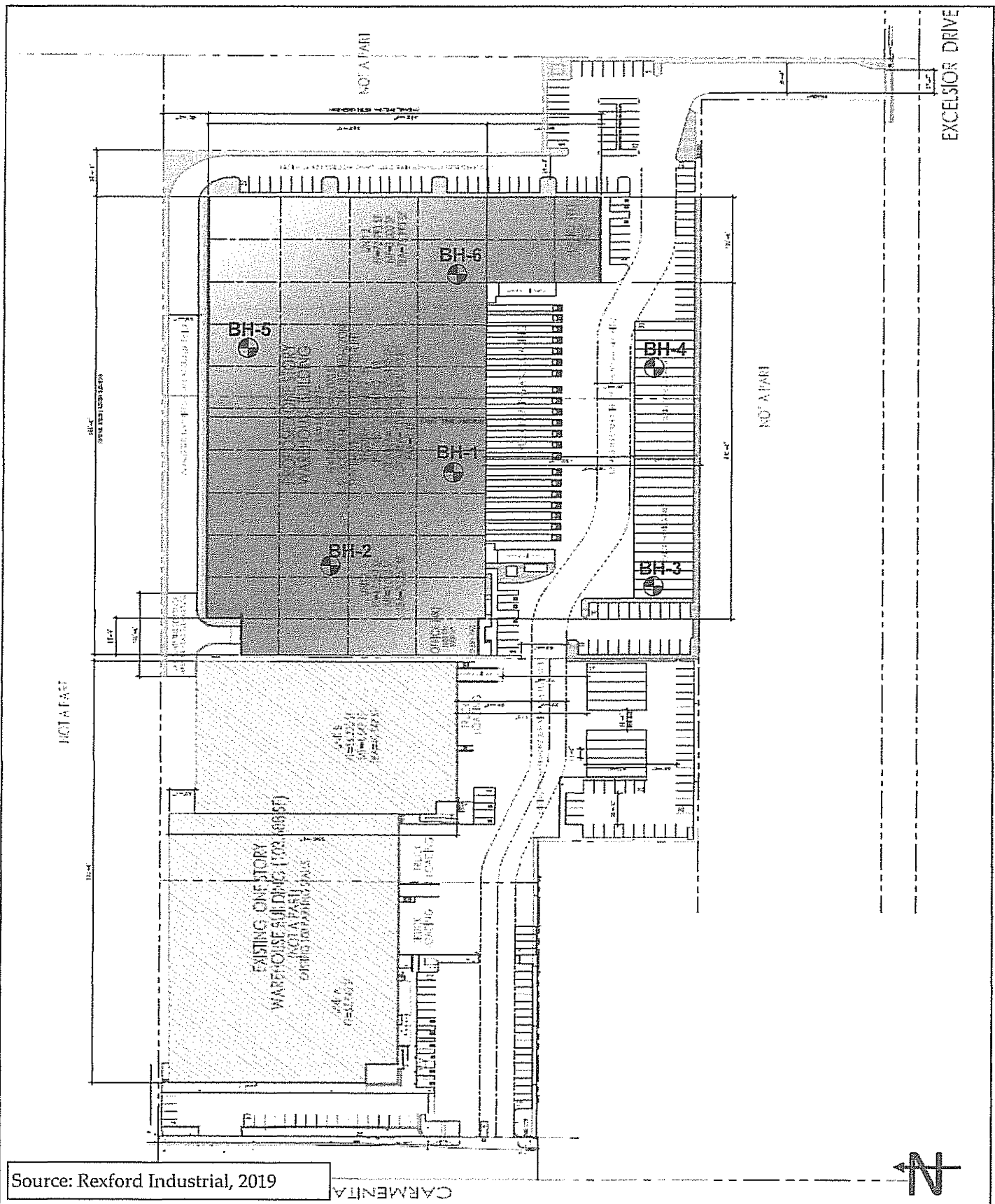
444-19057

Report Number:

19-08-076

Date:

August 23, 2019



BOREHOLE LOCATION PLAN

FIGURE

3



Sladden Engineering

Project Number:

444-19057

Report Number:

19-08-076

Date:

August 23, 2019

APPENDIX A

FIELD EXPLORATION

APPENDIX A

FIELD EXPLORATION

For our field investigation six (6) exploratory bores were excavated August 1, 2019 utilizing a truck-mounted hollow stem auger rig (Mobile B-61). Continuous logs of the materials encountered were made by a representative of Sladden Engineering. Materials encountered in the boreholes were classified in accordance with the Unified Soil Classification System (USCS) that is presented in this appendix.

Representative undisturbed samples were obtained within our bores by driving a thin-walled steel penetration sampler (California split spoon sampler) or a Standard Penetration Test (SPT) sampler with a 140 pound automatic-trip hammer dropping approximately 30 inches (ASTM D1586). The number of blows required to drive the samplers 18 inches was recorded in 6-inch increments and blowcounts are indicated on the boring logs.

The California samplers are 3.0 inches in diameter, carrying brass sample rings having inner diameters of 2.5 inches. The standard penetration samplers are 2.0 inches in diameter with an inner diameter of 1.5 inches. Undisturbed samples were removed from the sampler and placed in moisture sealed containers in order to preserve the natural soil moisture content. Bulk samples were obtained from the excavation spoils and samples were then transported to our laboratory for further observations and testing.

**SLADDEN ENGINEERING****BORE LOG**

Drill Rig:	Mobile B-61	Date Drilled:	8/1/2019
Elevation:	77 Ft (MSL)	Boring No:	BH-1

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Dry Density	Depth (Feet)	Graphic Lithology	Description
		1	3				2		Silty Sand (SM); grayish brown, slightly moist, fine-grained (Fill).
	3/4/5			72.2	24.4	95.2	4		
							6		Clayey Silt (ML); olive brown, moist, medium stiff, low to medium plasticity (Qal).
	3/3/3			65.5	27.7		10		Silty Clay (CL/CH); olive brown, medium stiff, high plasticity (Qal).
							12		
	5/9/12			51.2	22.3	102.7	14		
							16		Clayey Silt (ML); olive brown, moist, stiff, low to medium plasticity (Qal).
							18		
	5/6/7			7.3	8.2		20		Sand (SP); grayish brown, moist, medium dense, fine-grained (Qal).
							22		
							24		Terminated at - 21.5 Feet bgs.
							26		No Bedrock Encountered.
							28		No Groundwater or Seepage Encountered.
							30		
							32		
							34		
							36		
							38		
							40		
							42		
							44		
							46		
							48		
							50		

Completion Notes:

PROPOSED NEW WAREHOUSE BUILDING
14820 & 14830 CARMENITA ROAD, NORWALK

Project No: 444-19057

Report No: 19-08-076

Page

1

**SLADDEN ENGINEERING****BORE LOG**

Drill Rig:	Mobile B-61	Date Drilled:	8/1/2019
Elevation:	78 Ft (MSL)	Boring No:	BH-2

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Dry Density	Depth (Feet)	Graphic Lithology	Description
	4/6/7			18.0	4.7	99.8	2		Silty Sand (SM); grayish brown, slightly moist, loose, fine-grained (Fill).
	4/5/7			67.5	20.7	98.5	4		
							6		Clayey Silt (ML); olive brown, moist, medium stiff, low to medium plasticity (Qal).
							8		
	3/3/4			46.7	20.0		10		Clayey Sand (SC); grayish brown, moist, loose, fine-grained (Qal).
							12		
	4/8/13			32.7	13.8	108.3	14		
							16		Clayey Sand (SC); grayish brown, slightly moist, medium dense, fine-grained (Qal).
							18		
	4/8/11			3.7	5.1		20		Sand (SP); grayish brown, moist, medium dense, fine-grained (Qal).
							22		
							24		
	5/8/12			81.6	23.7	103.7	26		Clay (CL/CH); grayish brown, moist, stiff, medium to high plasticity (Qal).
							28		
	7/9/11			15.6	7.6		30		Silty Sand (SM); grayish brown, slightly moist, medium dense, fine-grained (Qal).
							32		
							34		
	5/8/12			56.6	16.1	120.2	36		Sandy Clay (CL/CH); grayish brown, moist, stiff, medium to high plasticity (Qal).
							38		
							40		
	5/8/11			54.0	16.3		42		Sandy Clay (CL/CH); grayish brown, moist, very stiff, medium to high plasticity (Qal).
							44		
	19/31/50			3.5	2.8	109.3	46		Sand (SP); grayish brown, moist, very dense, fine- to coarse-grained (Qal).
							48		Sand (SP); grayish brown, moist, very dense, fine- to coarse-grained (Qal).
							50		
	17/39/46			5.1	2.5				

Completion Notes:

Terminated at ~ 51.5 Feet bgs.

No Bedrock Encountered.

No Groundwater or Seepage Encountered.

PROPOSED NEW WAREHOUSE BUILDING

14820 & 14830 CARMENITA ROAD, NORWALK

Project No: 444-19057

Report No: 19-08-076

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**SLADDEN ENGINEERING****BORE LOG**

Drill Rig: Mobile B-61 Date Drilled: 8/1/2019

Elevation: 78 Ft (MSL) Boring No: BH-3

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Dry Density	Depth (Feet)	Graphic Lithology	Description
							2		Silty Sand (SM); grayish brown, slightly moist, fine-grained (Fill).
	4/5/9			87.8	30.3	93.7	4		
							6		Clayey Silt (ML); olive brown, moist, stiff, low to medium plasticity (Qal).
	5/6/6			55.4	15.3		10		Silty Clay (CL/CH); olive brown, stiff, high plasticity (Qal).
							12		
							14		Terminated at ~ 11.5 Feet bgs.
							16		No Bedrock Encountered.
							18		No Groundwater or Seepage Encountered.
							20		
							22		
							24		
							26		
							28		
							30		
							32		
							34		
							36		
							38		
							40		
							42		
							44		
							46		
							48		
							50		
Completion Notes:								PROPOSED NEW WAREHOUSE BUILDING	
								14820 & 14830 CARMENITA ROAD, NORWALK	
								Project No: 444-19057	Page 3
								Report No: 19-08-076	

**SLADDEN ENGINEERING****BORE LOG**

Drill Rig: Mobile B-61

Date Drilled: 8/1/2019

Elevation: 78 Ft (MSL)

Boring No: BH-4

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Dry Density	Depth (Feet)	Graphic Lithology	Description
							2		Silty Sand (SM); grayish brown, slightly moist, fine-grained (Fill).
							4		
							6		Clayey Silt (ML); olive brown, moist, low to medium plasticity (Qal).
							8		
							10		Sand (SP); grayish brown, moist, medium dense, fine-grained (Qal).
							12		
							14		Terminated at - 10.0 Feet bgs.
							16		No Bedrock Encountered.
							18		No Groundwater or Seepage Encountered.
							20		
							22		
							24		
							26		
							28		
							30		
							32		
							34		
							36		
							38		
							40		
							42		
							44		
							46		
							48		
							50		

Completion Notes:

PROPOSED NEW WAREHOUSE BUILDING
14820 & 14830 CARMENITA ROAD, NORWALK

Project No: 444-19057

Report No: 19-08-076

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**SLADDEN ENGINEERING****BORE LOG**

Drill Rig:	Mobile B-61	Date Drilled:	8/1/2019
Elevation:	77 Ft (MSL)	Boring No:	BH-5

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Dry Density	Depth (Feet)	Graphic Lithology	Description
							2		Silty Sand (SM); grayish brown, slightly moist, fine-grained (Fill).
							4		
	3/4/4			60.5	21.3		6		Clayey Silt (ML); olive brown, moist, medium stiff, low to medium plasticity (Qal).
							8		
	7/7/6			47.4	26.6	96.3	10		Clayey Sand (SC); grayish brown, moist, loose, fine-grained (Qal).
							12		
							14		
	3/3/4			72.3	26.2		16		Clay (CL/CH); grayish brown, moist, medium stiff, medium to high plasticity (Qal).
							18		
	4/9/23			38.9	15.6	119.7	20		Clayey Sand (SC); grayish brown, moist, medium dense, fine-grained (Qal).
							22		
							24		
	3/5/6			94.2	47.2		26		Sandy Clay (CL/CH); grayish brown, moist, stiff, medium to high plasticity (Qal).
							28		
	5/9/12			65.5	16.5	117.3	30		Sandy Clay (CL/CH); grayish brown, moist, stiff, medium to high plasticity (Qal).
							32		
							34		
	8/16/16			23.9	9.0		36		Clayey Sand (SC); grayish brown, moist, dense, fine-grained (Qal).
							38		
	9/23/39			3.0	2.2	111.2	40		Sand (SP); grayish brown, moist, dense, fine- to coarse-grained (Qal).
							42		
							44		
	15/20/26			9.3	4.2		46		Sand (SP); grayish brown, moist, dense, fine- to coarse-grained (Qal).
							48		
	27/31/40			39.7	13.3	112.8	50		Silty Sand (SM); grayish brown, moist, dense, fine- to coarse-grained (Qal).

Completion Notes:

Terminated at ~ 51.5 Feet bgs.

No Bedrock Encountered.

No Groundwater or Seepage Encountered.

PROPOSED NEW WAREHOUSE BUILDING

14820 & 14830 CARMENITA ROAD, NORWALK

Project No: 444-19057

Report No: 19-08-076

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**SLADDEN ENGINEERING****BORE LOG**

Drill Rig:

Mobile B-61

Date Drilled:

8/1/2019

Elevation:

76 Ft (MSL)

Boring No:

BH-6

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Dry Density	Depth (Feet)	Graphic Lithology	Description
							2		Silty Sand (SM); grayish brown, slightly moist, fine-grained (Fill).
							4		
	3/4/7			54.5	18.8	103.8	6		Clayey Silt (ML); olive brown, moist, medium stiff, low to medium plasticity (Qal).
							8		
	2/2/2			46.4	22.2		10		Clayey Sand (SC); grayish brown, moist, very loose, fine-grained (Qal).
							12		
							14		
	4/6/9			84.6	30.5	92.6	16		Clay (CL/CH); grayish brown, moist, stiff, high plasticity (Qal).
							18		Terminated at - 16.5 Feet bgs.
							20		No Bedrock Encountered.
							22		No Groundwater or Seepage Encountered.
							24		
							26		
							28		
							30		
							32		
							34		
							36		
							38		
							40		
							42		
							44		
							46		
							48		
							50		
Completion Notes:								PROPOSED NEW WAREHOUSE BUILDING 14820 & 14830 CARMENITA ROAD, NORWALK	
								Project No: 444-19057	Page 6
								Report No: 19-08-076	

APPENDIX B

LABORATORY TESTING

APPENDIX B

LABORATORY TESTING

Representative bulk and relatively undisturbed soil samples were obtained in the field and returned to our laboratory for additional observations and testing. Laboratory testing was generally performed in two phases. The first phase consisted of testing in order to determine the compaction of the existing natural soil and the general engineering classifications of the soils underlying the site. This testing was performed in order to estimate the engineering characteristics of the soil and to serve as a basis for selecting samples for the second phase of testing. The second phase consisted of soil mechanics testing. This testing including consolidation, shear strength and expansion testing was performed in order to provide a means of developing specific design recommendations based on the mechanical properties of the soil.

CLASSIFICATION AND COMPACTION TESTING

Unit Weight and Moisture Content Determinations: Each undisturbed sample was weighed and measured in order to determine its unit weight. A small portion of each sample was then subjected to testing in order to determine its moisture content. This was used in order to determine the dry density of the soil in its natural condition. The results of this testing are shown on the Bore Logs.

Maximum Density-Optimum Moisture Determinations: Representative soil types were selected for maximum density determinations. This testing was performed in accordance with the ASTM Standard D1557-91, Test Method A. The results of testing are presented graphically in this appendix. The maximum densities are compared to the field densities of the soil in order to determine the existing relative compaction to the soil.

Classification Testing: Soil samples were selected for classification testing. This testing consists of mechanical grain size analyses. This provides information for developing classifications for the soil in accordance with the Unified Soil Classification System which is presented in the preceding appendix. This classification system categorizes the soil into groups having similar engineering characteristics. The results of this testing is very useful in detecting variations in the soils and in selecting samples for further testing.

SOIL MECHANIC'S TESTING

Expansion Testing: Two (2) bulk samples were selected for Expansion testing. Expansion testing was performed in accordance with the UBC Standard 18-2. This testing consists of remolding 4-inch diameter by 1-inch thick test specimens to a moisture content and dry density corresponding to approximately 50 percent saturation. The samples are subjected to a surcharge of 144 pounds per square foot and allowed to reach equilibrium. At that point the specimens are inundated with distilled water. The linear expansion is then measured until complete.

Direct Shear Testing: Two (2) bulk samples were selected for Direct Shear testing. This test measures the shear strength of the soil under various normal pressures and is used to develop parameters for foundation design and lateral design. Tests were performed using a recompacted test specimen that was saturated prior to tests. Tests were performed using a strain controlled test apparatus with normal pressures ranging from 800 to 2300 pounds per square foot.



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Maximum Density/Optimum Moisture

ASTM D698/D1557

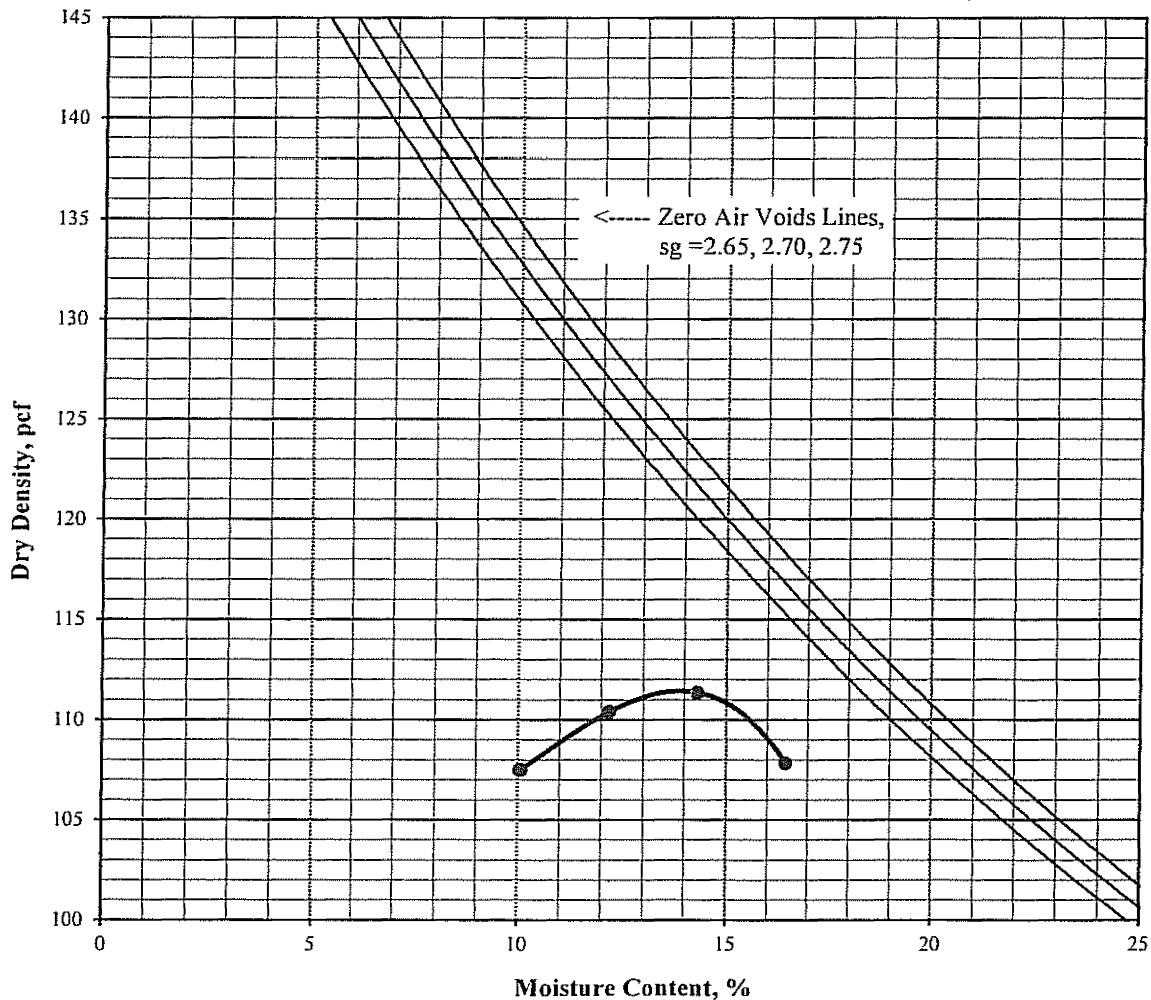
Project Number: 444-19057
Project Name: 14820 Carmenita Road
Lab ID Number: LN6-19408
Sample Location: BH-1 Bulk 1 @ 0-5'
Description: Dark Brown Sandy Silt (ML)

August 22, 2019

ASTM D-1557 A
Rammer Type: Machine

Maximum Density: 111.5 pcf
Optimum Moisture: 13.5%

Sieve Size	% Retained
3/4"	
3/8"	
#4	0.1





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Expansion Index

ASTM D 4829

Job Number: 444-19057
Job Name: 14820 Carmenita Road
Lab ID Number: LN6-19408
Sample ID: BH-1 Bulk 1 @ 0-5'
Soil Description: Dark Brown Sandy Silt (ML)

August 22, 2019

Wt of Soil + Ring:	549.5
Weight of Ring:	191.1
Wt of Wet Soil:	358.4
Percent Moisture:	11.8%
Sample Height, in	0.95
Wet Density, pcf:	114.3
Dry Density, pcf:	102.3

% Saturation:	49.2
---------------	------

Expansion

Rack # 3

Date/Time	8/19/2019	3:50 PM
Initial Reading	0.0000	
Final Reading	0.0034	

Expansion Index

3

(Final - Initial) x 1000



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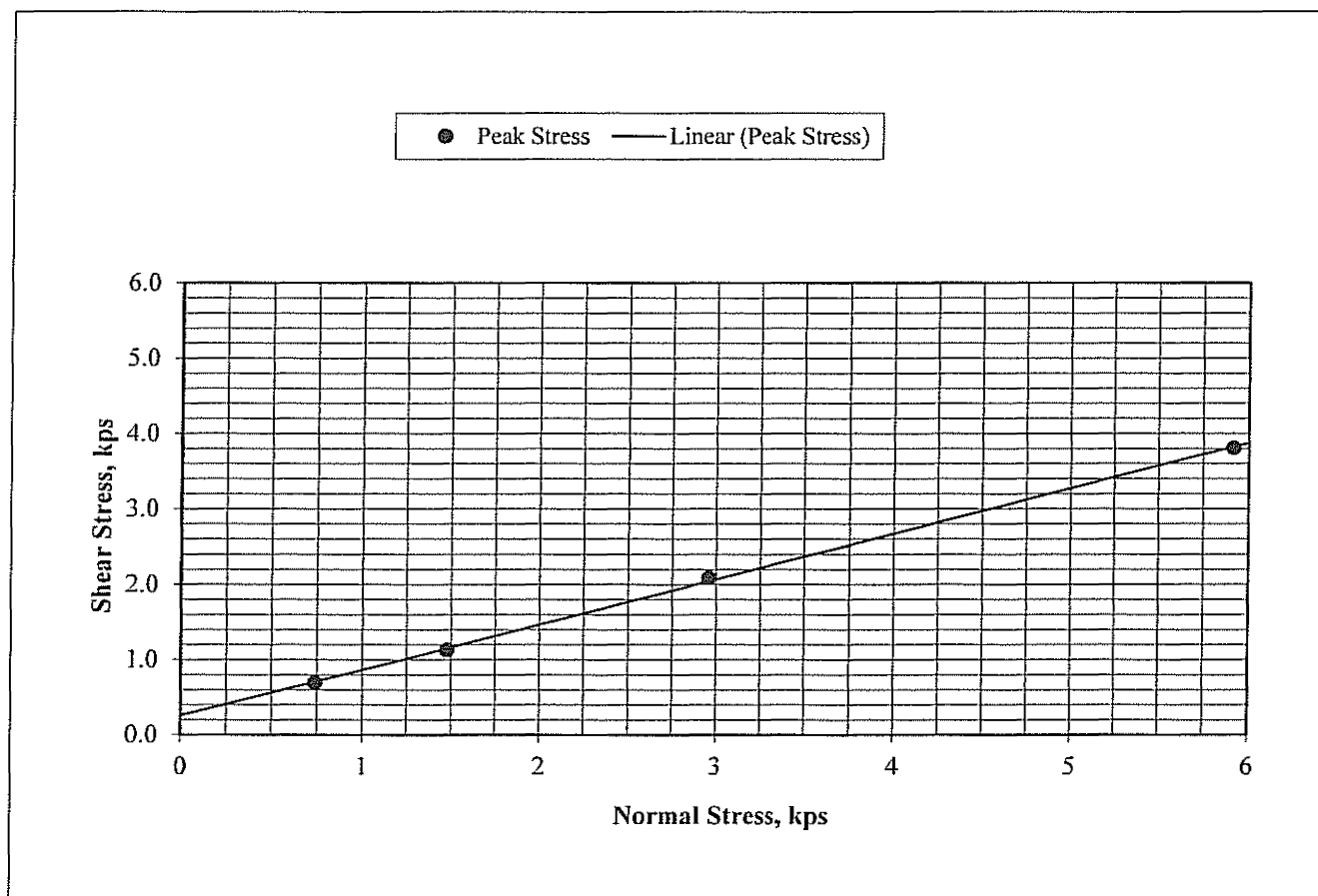
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Direct Shear ASTM D 3080-04 (modified for unconsolidated condition)

Job Number: 444-19057
Job Name 14820 Carmenita Road
Lab ID No. LN6-19408
Sample ID BH-1 Bulk 1 @ 0-5'
Classification Dark Brown Sandy Silt (ML)
Sample Type Remolded @ 90% of Maximum Density

August 22, 2019
Initial Dry Density: 100.1 pcf
Initial Moisture Content: 13.6 %
Peak Friction Angle (ϕ): 31°
Cohesion (c): 260 psf

Test Results	1	2	3	4	Average
Moisture Content, %	24.3	24.3	24.3	24.3	24.3
Saturation, %	96.1	96.1	96.1	96.1	96.1
Normal Stress, kps	0.739	1.479	2.958	5.916	
Peak Stress, kps	0.696	1.131	2.088	3.806	





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Gradation

ASTM C117 & C136

Project Number: 444-19057

August 22, 2019

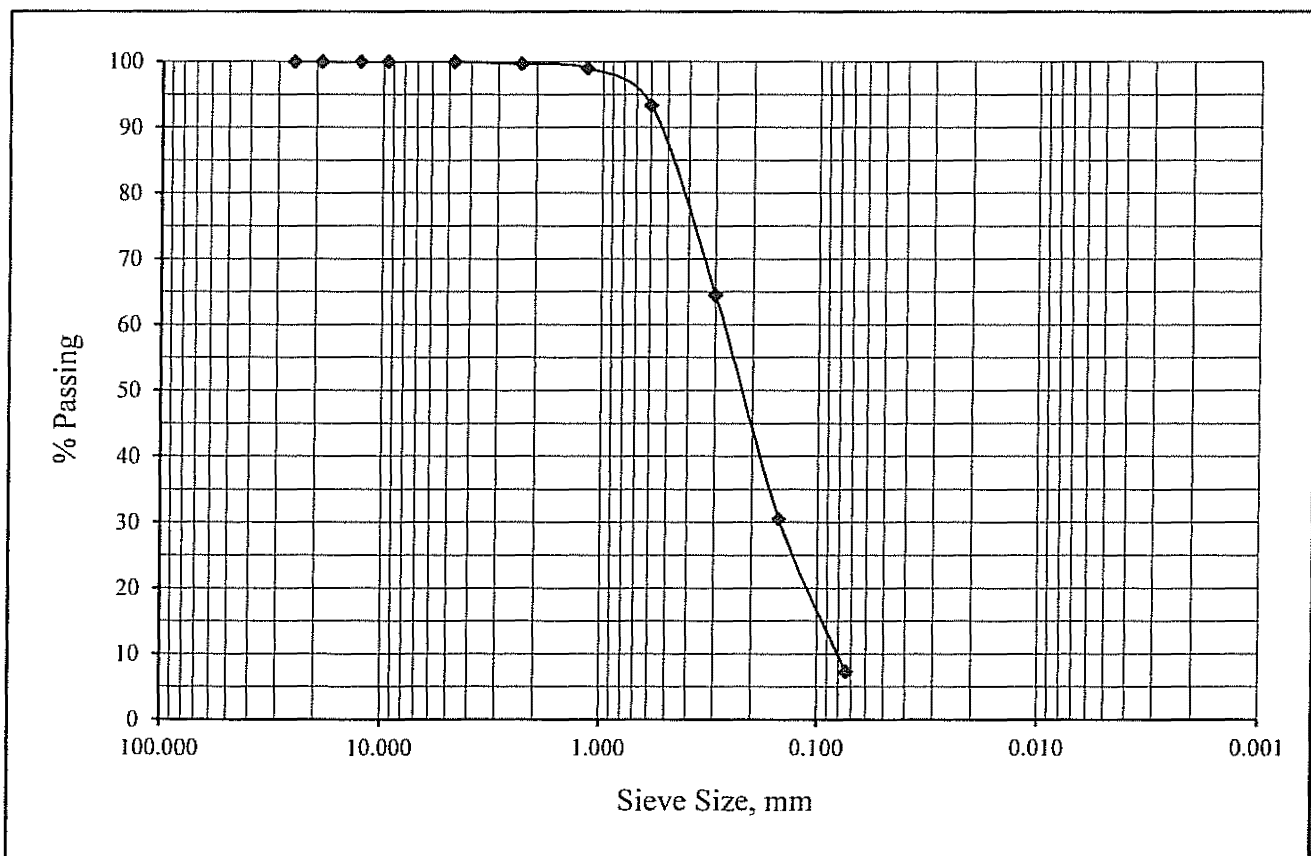
Project Name: 14820 Carmenita Road

Lab ID Number: LN6-19408

Sample ID: BH-1 S-4 @ 20'

Soil Classification: SP-SM

Sieve Size, in	Sieve Size, mm	Percent Passing
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.53	100.0
#4	4.75	100.0
#8	2.36	99.6
#16	1.18	99.0
#30	0.60	93.4
#50	0.30	64.5
#100	0.15	30.5
#200	0.074	7.3





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Gradation

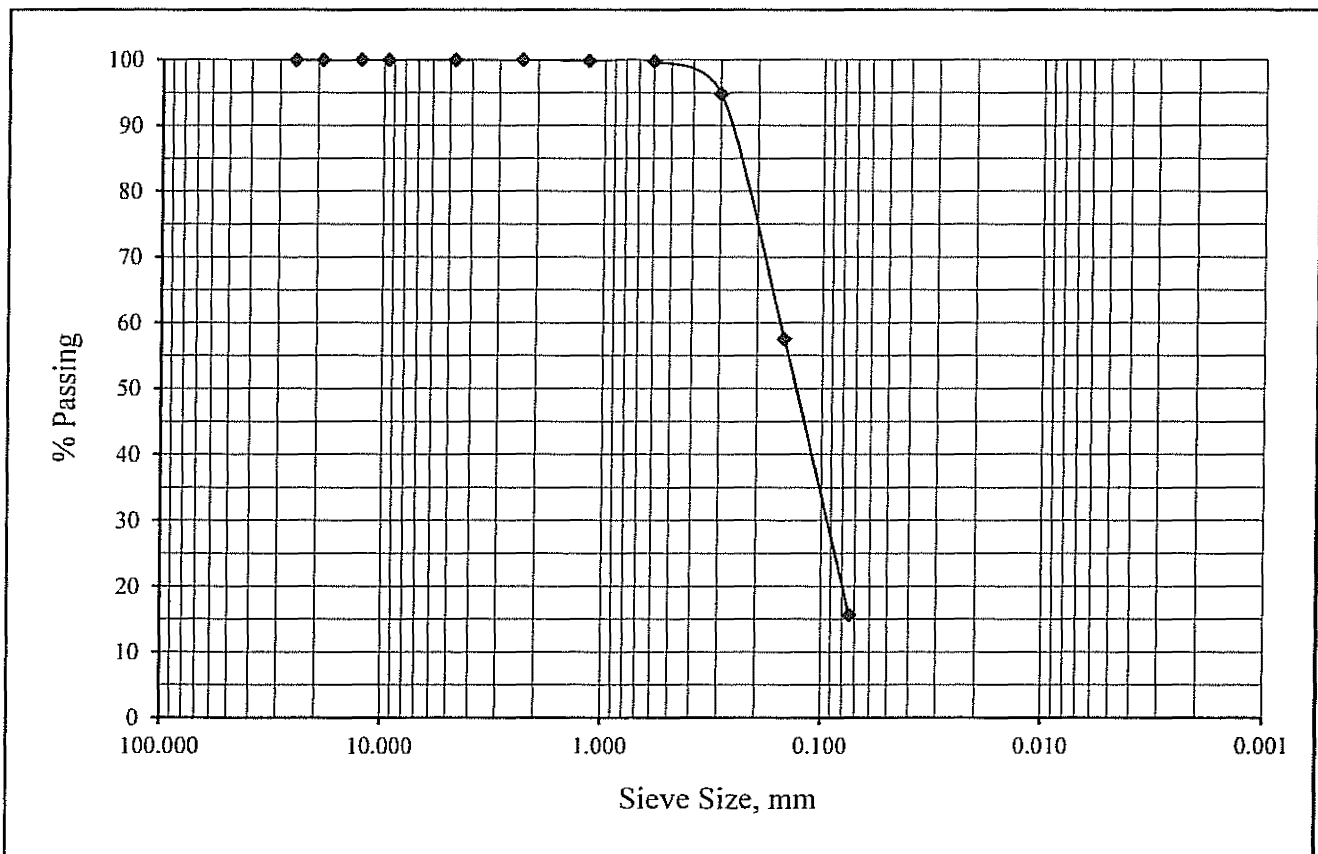
ASTM C117 & C136

Project Number: 444-19057
Project Name: 14820 Carmenita Road
Lab ID Number: LN6-19408
Sample ID: BH-2 S-7 @ 30'

August 22, 2019

Soil Classification: SM

Sieve Size, in	Sieve Size, mm	Percent Passing
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.53	100.0
#4	4.75	100.0
#8	2.36	100.0
#16	1.18	99.9
#30	0.60	99.7
#50	0.30	94.8
#100	0.15	57.5
#200	0.074	15.6





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Gradation

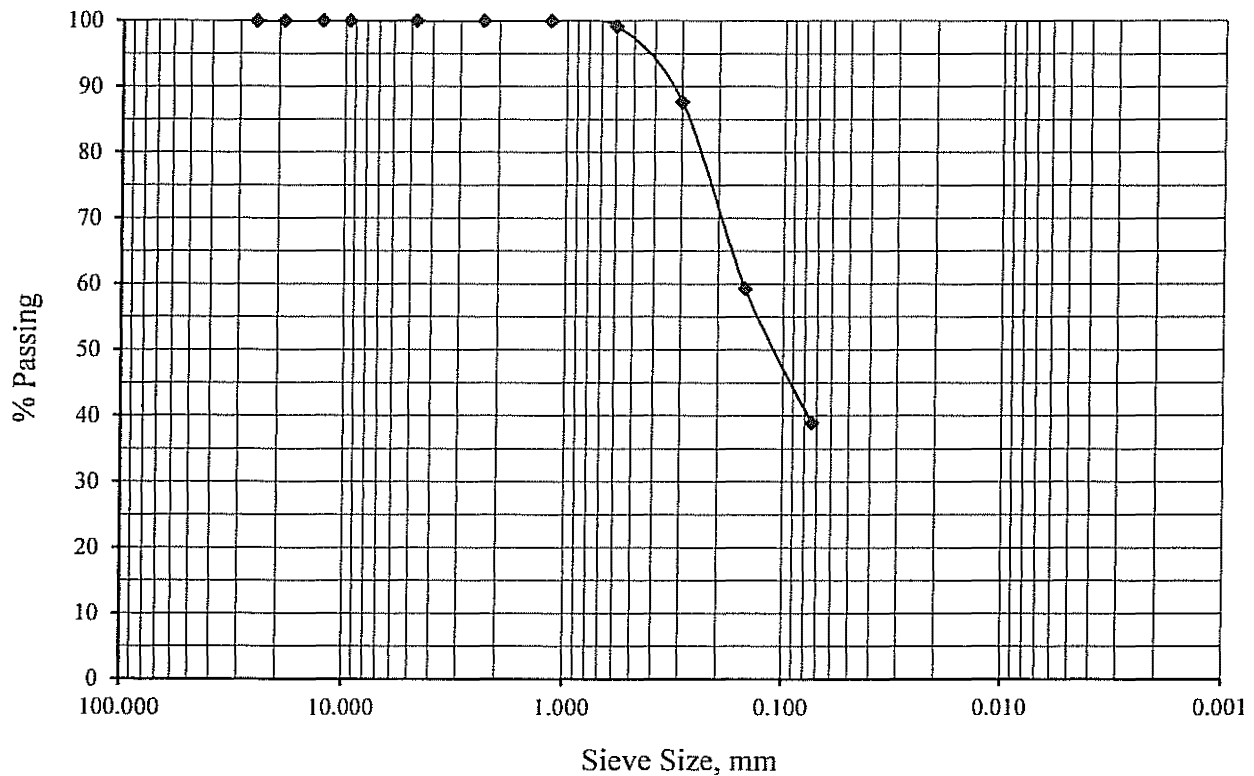
ASTM C117 & C136

Project Number: 444-19057
Project Name: 14820 Carmenita Road
Lab ID Number: LN6-19408
Sample ID: BH-5 R-4 @ 20'

August 22, 2019

Soil Classification: SM

Sieve Size, in	Sieve Size, mm	Percent Passing
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.53	100.0
#4	4.75	100.0
#8	2.36	100.0
#16	1.18	100.0
#30	0.60	99.2
#50	0.30	87.7
#100	0.15	59.3
#200	0.074	38.9





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Gradation

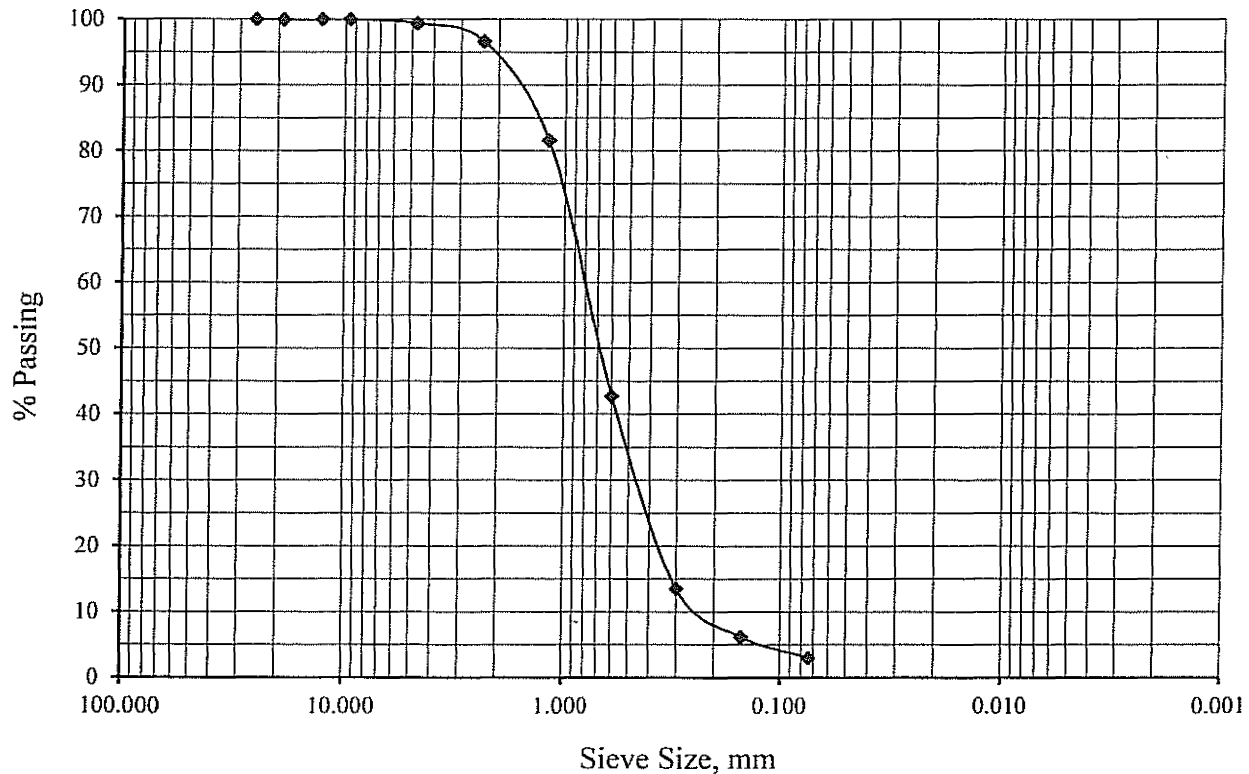
ASTM C117 & C136

Project Number: 444-19057
Project Name: 14820 Carmenita Road
Lab ID Number: LN6-19408
Sample ID: BH-5 R-8 @ 40'

August 22, 2019

Soil Classification: SP

Sieve Size, in	Sieve Size, mm	Percent Passing
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.53	100.0
#4	4.75	99.4
#8	2.36	96.7
#16	1.18	81.6
#30	0.60	42.7
#50	0.30	13.5
#100	0.15	6.2
#200	0.074	3.0





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One Dimensional Consolidation

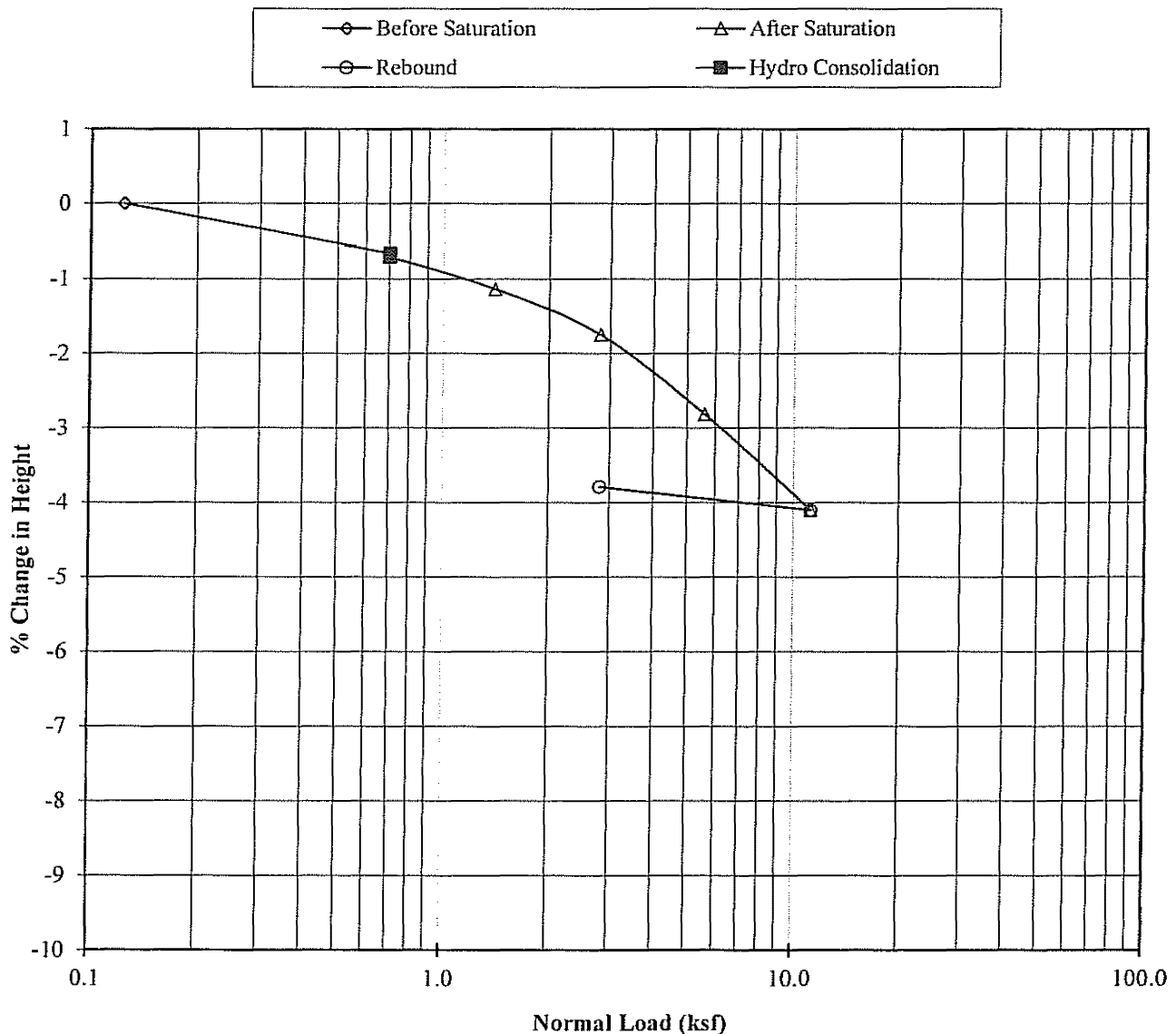
ASTM D2435 & D5333

Job Number: 444-19057
Job Name: 14820 Carmenita Road
Lab ID Number: LN6-19408
Sample ID: BH-1 R-2 @ 5'
Soil Description: Olive Brown Silt w/Sand (ML)

August 22, 2019

Initial Dry Density, pcf: 93.0
Initial Moisture, %: 24.4
Initial Void Ratio: 0.793
Specific Gravity: 2.67

% Change in Height vs Normal Pressure Diagram





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One Dimensional Consolidation

ASTM D2435 & D5333

Job Number: 444-19057
Job Name: 14820 Carmenita Road

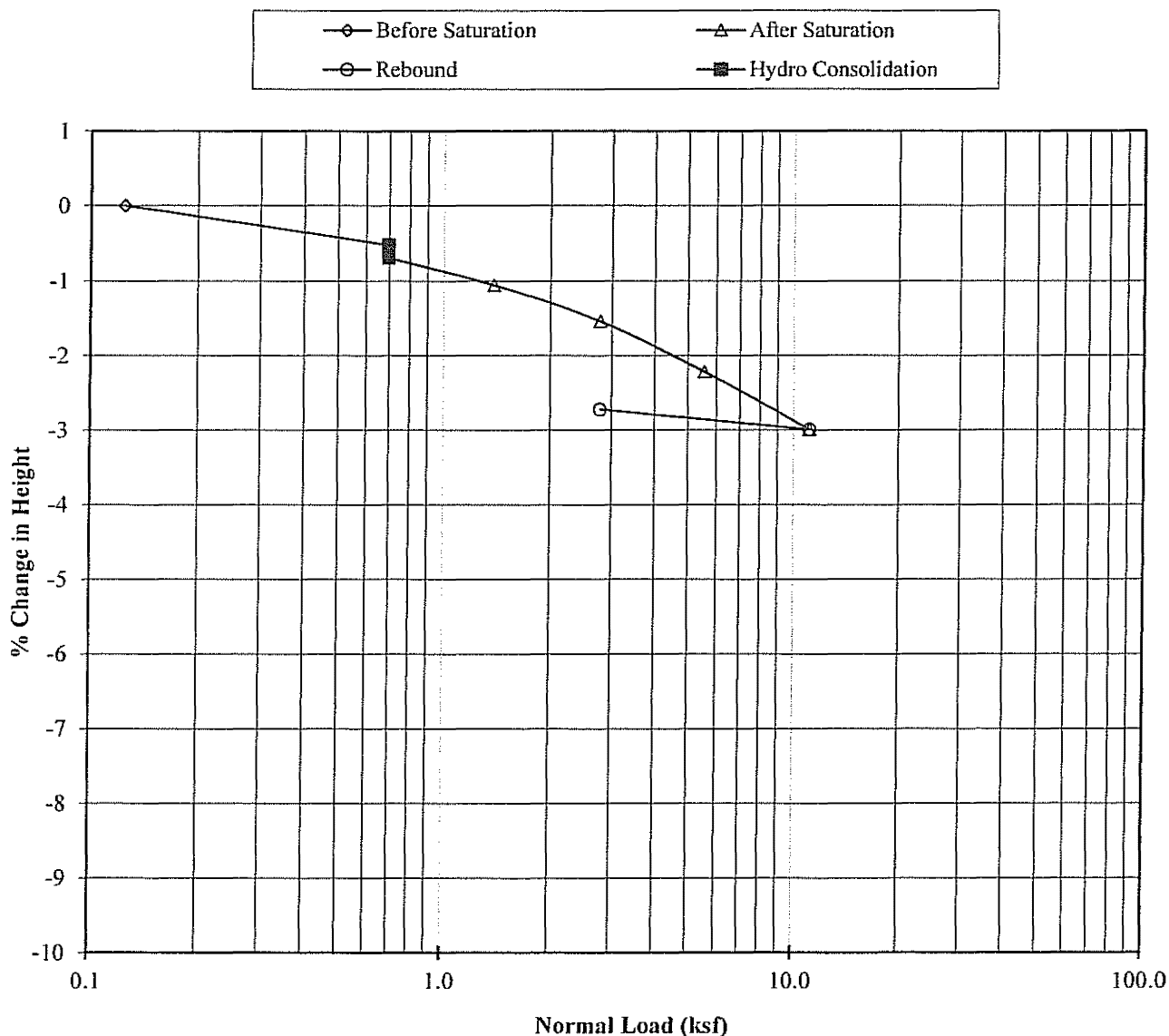
August 22, 2019

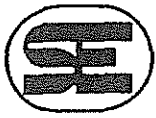
Lab ID Number: LN6-19408
Sample ID: BH-5 R-2 @ 10'
Soil Description: Gray Brown Silty Sand (SM)

Initial Dry Density, pcf: 98.3
Initial Moisture, %: 26.6
Initial Void Ratio: 0.696
Specific Gravity: 2.67

Hydrocollapse: 0.2% @ 0.694 ksf

% Change in Height vs Normal Pressure Diagram





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RESISTANCE 'R' VALUE AND EXPANSION PRESSURE

CTM 301

August 22, 2019

Project Number: 444-19057

Project Name: 14820 Carmenita Road

Lab ID Number: LN6-19408

Sample ID: BH-1 Bulk 1 @ 0-5'

Sample Description: Dark Brown Sandy Silt (ML)

Specified Traffic Index: 5.0

Dry Density @ 300 psi Exudation Pressure: 106.0-pcf

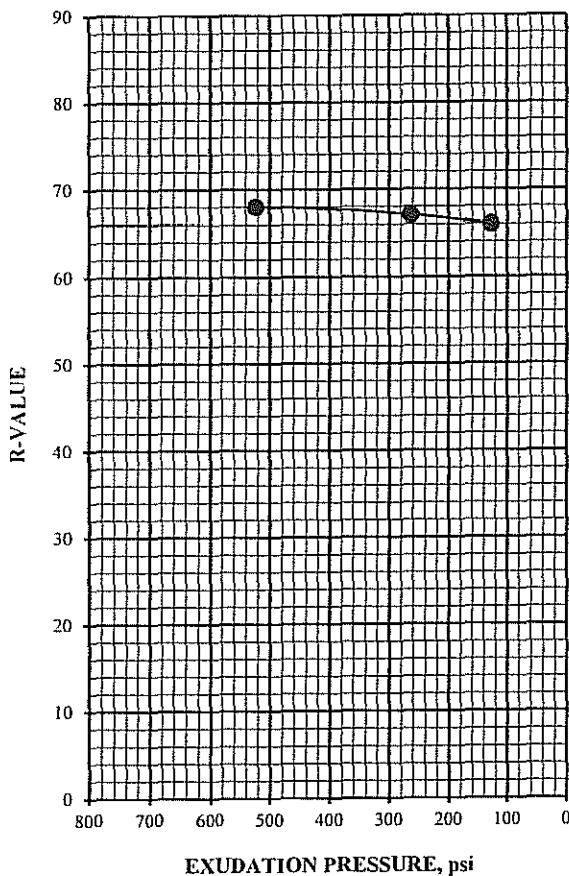
%Moisture @ 300 psi Exudation Pressure: 15.4%

R-Value - Exudation Pressure: 67

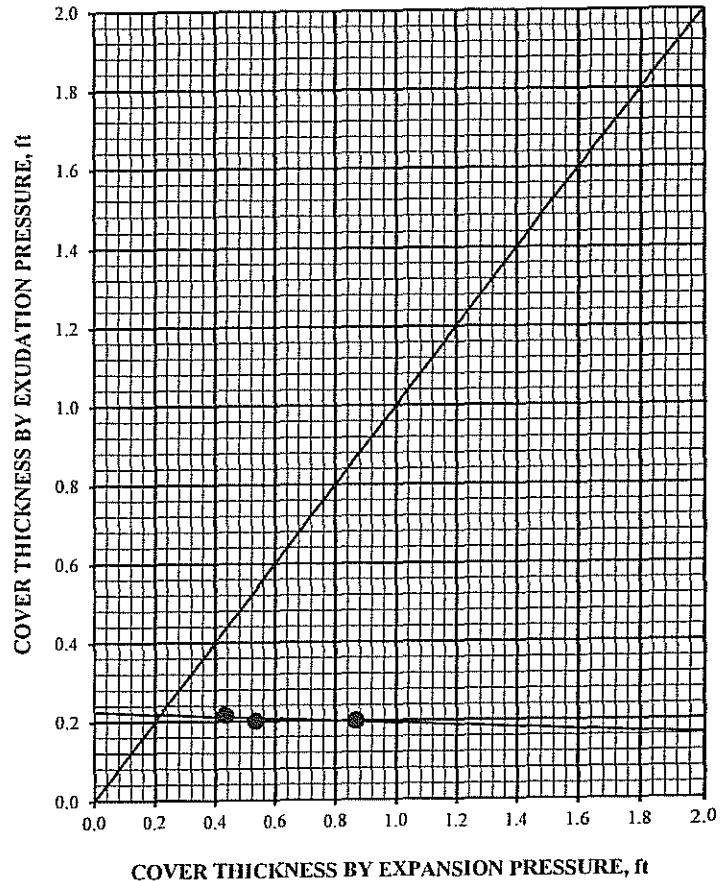
R-Value - Expansion Pressure: 65

R-Value @ Equilibrium: 65

EXUDATION PRESSURE CHART



EXPANSION PRESSURE CHART



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45090 Golf Center Pkwy, Suite F, Indio, CA 92201 (760) 863-0713 Fax (760) 863-0847
450 Egan Avenue, Beaumont, CA 92223 (951) 845-7743 Fax (951) 845-8863

Date: August 22, 2019

Account No.: 444-19057

Customer: Rexford Industrial

Location: 14820 Carmenita Road, Norwalk

Analytical Report

Corrosion Series

	pH per CA 643	Soluble Sulfates per CA 417 ppm	Soluble Chloride per CA 422 ppm	Min. Resistivity per CA 643 ohm-cm
BH-1 @ 0-5'	9.7	280	60	5500

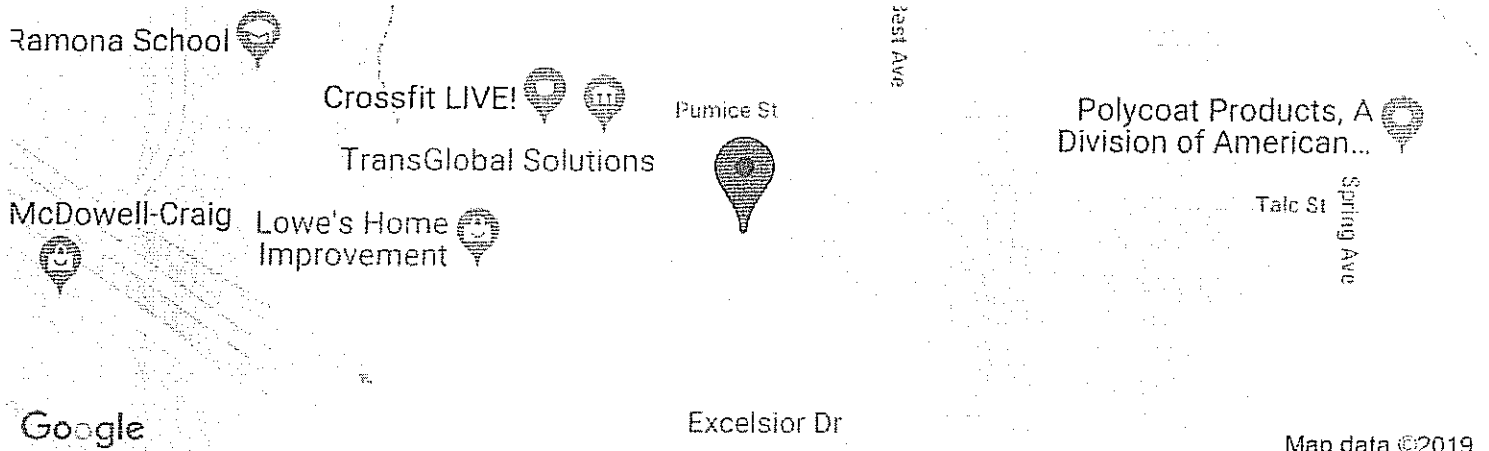
APPENDIX C

SEISMIC DESIGN MAP AND REPORT DEAGGREGATION OUTPUT



OSHDPD

Latitude, Longitude: 33.896650, -118.045733

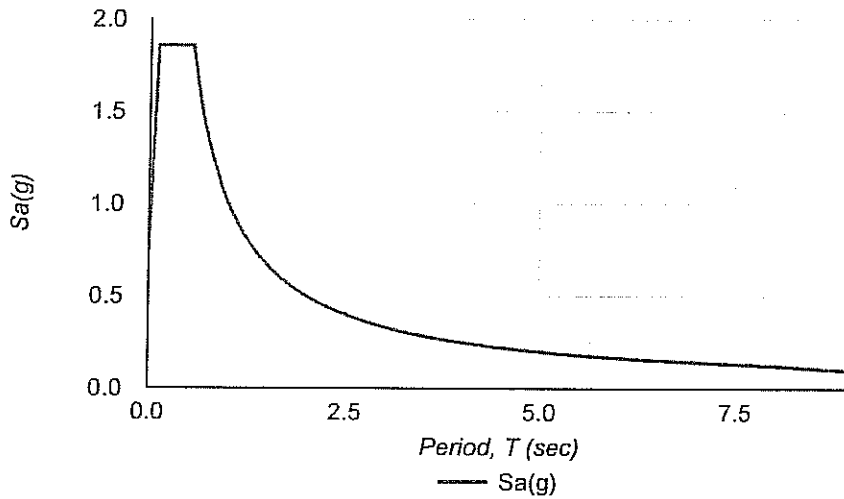
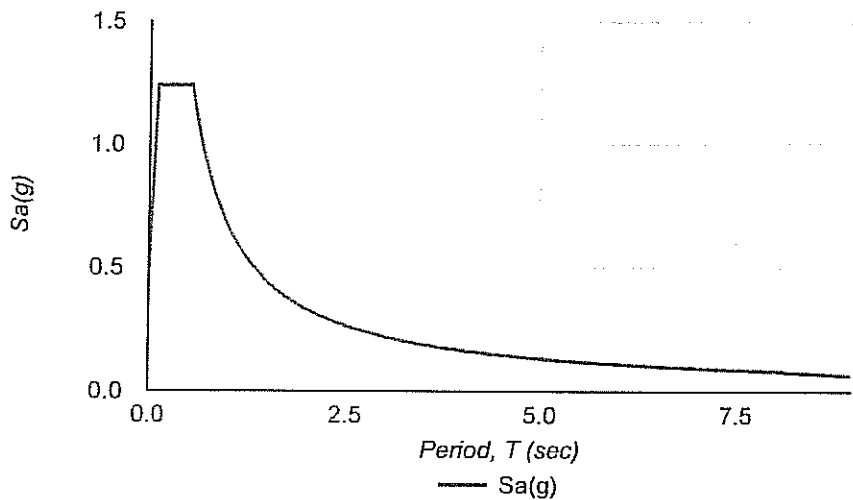


Map data ©2019

Date	8/9/2019, 2:49:15 PM
Design Code Reference Document	ASCE7-10
Risk Category	II
Site Class	D - Stiff Soil

Type	Value	Description
S_S	1.857	MCE_R ground motion. (for 0.2 second period)
S_1	0.666	MCE_R ground motion. (for 1.0s period)
S_{MS}	1.857	Site-modified spectral acceleration value
S_{M1}	0.999	Site-modified spectral acceleration value
S_{DS}	1.238	Numeric seismic design value at 0.2 second SA
S_{D1}	0.666	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	D	Seismic design category
F_a	1	Site amplification factor at 0.2 second
F_v	1.5	Site amplification factor at 1.0 second
PGA	0.711	MCE_G peak ground acceleration
F_{PGA}	1	Site amplification factor at PGA
PGA_M	0.711	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
S_{sRT}	1.857	Probabilistic risk-targeted ground motion. (0.2 second)
S_{sUH}	1.927	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
S_{sD}	2.158	Factored deterministic acceleration value. (0.2 second)
S_{1RT}	0.666	Probabilistic risk-targeted ground motion. (1.0 second)
S_{1UH}	0.675	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S_{1D}	0.78	Factored deterministic acceleration value. (1.0 second)
PGAd	0.816	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.963	Mapped value of the risk coefficient at short periods
C_{R1}	0.987	Mapped value of the risk coefficient at a period of 1 s

MCER Response Spectrum**Design Response Spectrum****DISCLAIMER**

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U.S. Geological Survey - Earthquake Hazards Program

Unified Hazard Tool

Please do not use this tool to obtain ground motion parameter values for the design code reference documents covered by the [U.S. Seismic Design Maps web tools](#) (e.g., the International Building Code and the ASCE 7 or 41 Standard). The values returned by the two applications are not identical.

^ Input

Edition

Dynamic: Conterminous U.S. 2014 (v4.1.

Spectral Period

Peak ground acceleration

Latitude

Decimal degrees

33.89665

Time Horizon

Return period in years

475

Longitude

Decimal degrees, negative values for western longitudes

-118.045621

Site Class

259 m/s (Site class D)

^ Hazard Curve

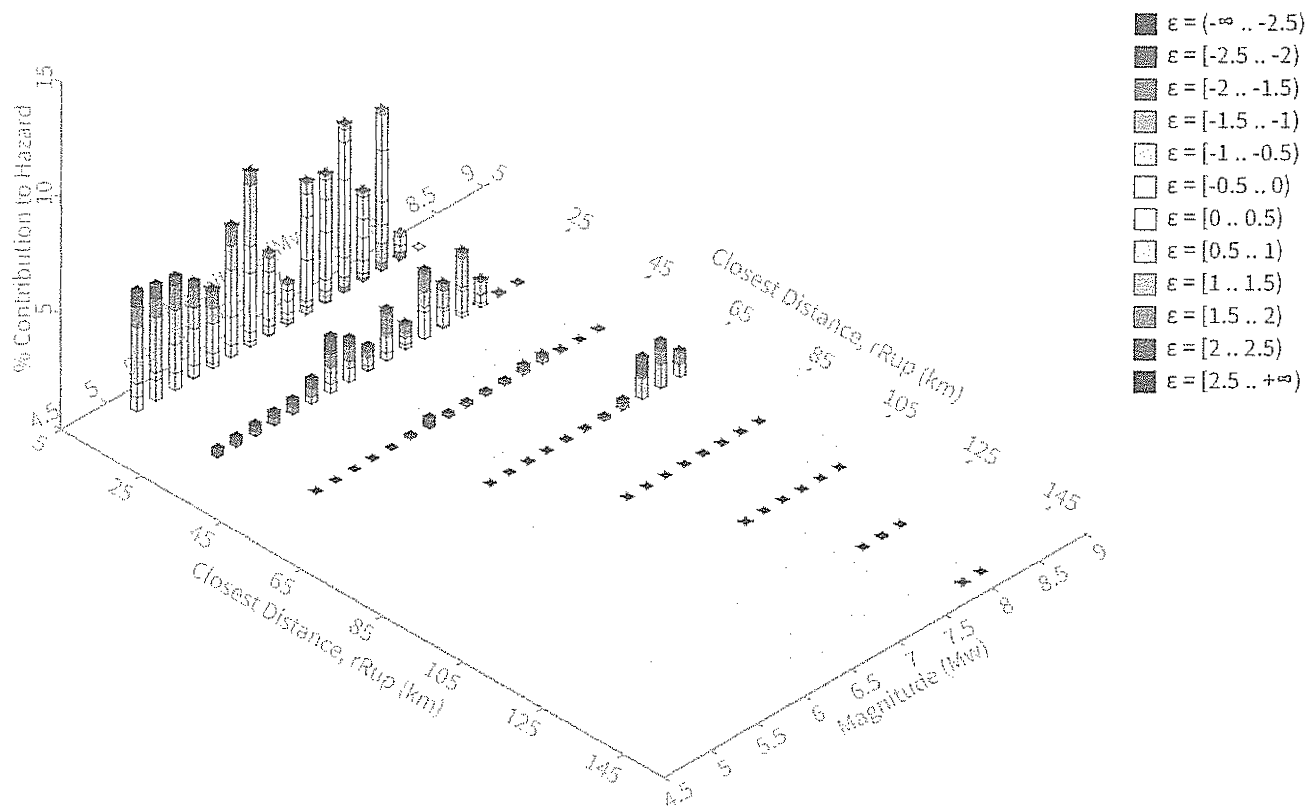
Please select "Edition", "Location" & "Site Class" above to compute a hazard curve.

Compute Hazard Curve

^ Deaggregation

Component

Total



Summary statistics for, Deaggregation: Total

Deaggregation targets

Return period: 475 yrs
Exceedance rate: 0.0021052632 yr⁻¹
PGA ground motion: 0.4872934 g

Recovered targets

Return period: 506.16425 yrs
Exceedance rate: 0.0019756433 yr⁻¹

Totals

Binned: 100 %
Residual: 0 %
Trace: 0.2 %

Mean (for all sources)

r: 17.48 km
m: 6.66
ε₀: 0.79 σ

Mode (largest r-m bin)

r: 10.24 km
m: 6.27
ε₀: 0.72 σ
Contribution: 7.53 %

Mode (largest ε₀ bin)

r: 10.06 km
m: 7.29
ε₀: -0.23 σ
Contribution: 3.35 %

Discretization

r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ

Epsilon keys

ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Deaggregation Contributors

Source Set	Source	Type	r	m	ϵ_0	lon	lat	az	%
UC33brAvg_FM32		System							32.45
	Puente Hills (Coyote Hills) [1]		4.45	7.23	-0.32	118.044°W	33.915°N	3.29	4.74
	Puente Hills (Santa Fe Springs) [0]		6.51	7.17	-0.06	118.063°W	33.940°N	341.77	3.34
	Compton [0]		12.04	7.30	-0.25	118.122°W	33.750°N	203.27	3.01
	San Andreas (Mojave S) [11]		62.36	8.04	1.61	117.738°W	34.397°N	26.87	2.48
	Newport-Inglewood alt 2 [3]		15.36	7.46	0.41	118.148°W	33.789°N	218.21	1.78
	Palos Verdes [10]		25.54	7.40	0.99	118.253°W	33.746°N	228.90	1.73
	Puente Hills (LA) [0]		12.75	7.12	0.39	118.116°W	33.990°N	327.92	1.72
	Whittier alt 2 [6]		10.12	6.98	0.40	117.992°W	33.975°N	29.76	1.72
	Anaheim [2]		5.39	7.03	-0.31	118.063°W	33.881°N	221.04	1.20
UC33brAvg_FM31		System							31.92
	Puente Hills [1]		8.07	7.34	-0.05	118.041°W	33.947°N	3.94	3.86
	Whittier alt 1 [7]		10.17	6.75	0.53	118.000°W	33.979°N	24.92	3.62
	Compton [0]		12.04	7.24	-0.23	118.122°W	33.750°N	203.27	3.00
	San Andreas (Mojave S) [11]		62.36	8.05	1.61	117.738°W	34.397°N	26.87	2.47
	Newport-Inglewood alt 1 [3]		15.44	7.47	0.39	118.149°W	33.789°N	218.54	2.34
	Palos Verdes [10]		25.54	7.25	1.09	118.253°W	33.746°N	228.90	1.70
	Elysian Park (Upper) [0]		21.02	6.51	1.28	118.107°W	34.075°N	344.08	1.40
	Anaheim [2]		5.39	6.99	-0.29	118.063°W	33.881°N	221.04	1.20
	Whittier alt 1 [6]		10.18	6.43	0.71	117.990°W	33.975°N	30.39	1.18
UC33brAvg_FM32 (opt)		Grid							18.43
	PointSourceFinite: -118.046, 33.937		6.81	5.59	0.69	118.046°W	33.937°N	0.00	2.31
	PointSourceFinite: -118.046, 33.937		6.81	5.59	0.69	118.046°W	33.937°N	0.00	2.31
	PointSourceFinite: -118.046, 33.946		7.41	5.63	0.75	118.046°W	33.946°N	0.00	1.49
	PointSourceFinite: -118.046, 33.946		7.41	5.63	0.75	118.046°W	33.946°N	0.00	1.49
	PointSourceFinite: -118.046, 34.000		11.98	5.69	1.19	118.046°W	34.000°N	0.00	1.18
	PointSourceFinite: -118.046, 34.000		11.98	5.69	1.19	118.046°W	34.000°N	0.00	1.18
	PointSourceFinite: -118.046, 34.009		12.86	5.70	1.26	118.046°W	34.009°N	0.00	1.07
	PointSourceFinite: -118.046, 34.009		12.86	5.70	1.26	118.046°W	34.009°N	0.00	1.07
UC33brAvg_FM31 (opt)		Grid							17.20
	PointSourceFinite: -118.046, 33.937		6.82	5.57	0.71	118.046°W	33.937°N	0.00	1.93
	PointSourceFinite: -118.046, 33.937		6.82	5.57	0.71	118.046°W	33.937°N	0.00	1.93
	PointSourceFinite: -118.046, 33.946		7.37	5.65	0.74	118.046°W	33.946°N	0.00	1.31
	PointSourceFinite: -118.046, 33.946		7.37	5.65	0.74	118.046°W	33.946°N	0.00	1.31
	PointSourceFinite: -118.046, 34.000		11.96	5.70	1.19	118.046°W	34.000°N	0.00	1.23
	PointSourceFinite: -118.046, 34.000		11.96	5.70	1.19	118.046°W	34.000°N	0.00	1.23
	PointSourceFinite: -118.046, 34.009		13.00	5.66	1.30	118.046°W	34.009°N	0.00	1.05
	PointSourceFinite: -118.046, 34.009		13.00	5.66	1.30	118.046°W	34.009°N	0.00	1.05

APPENDIX D

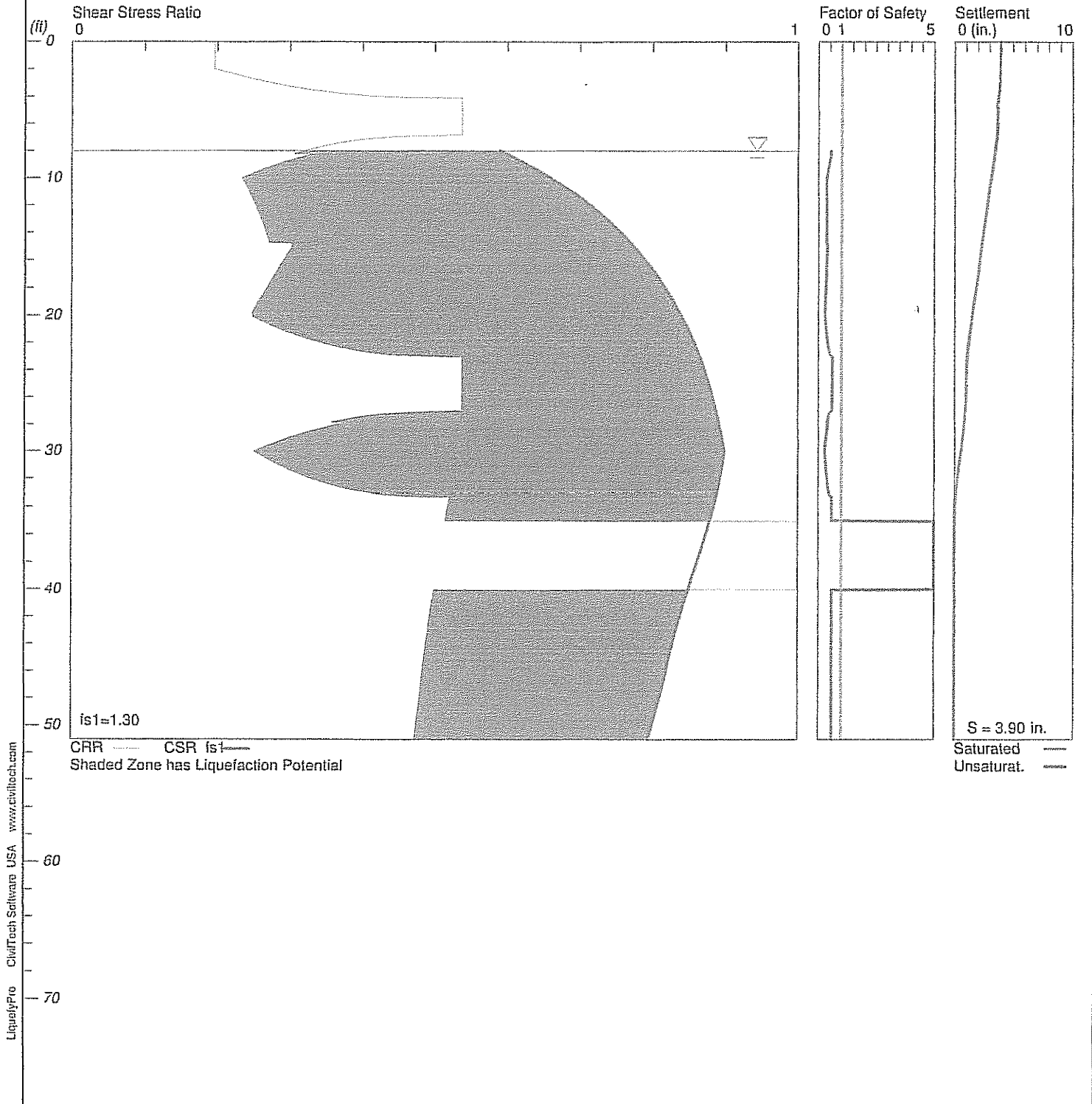
SEISMIC SETTLEMENT ANALYSIS

LIQUEFACTION ANALYSIS

14820 & 14830 Carmenita Rd., Norwalk

Hole No.=BH-2 Water Depth=8 ft Surface Elev.=78

Magnitude=7.29
Acceleration=0.711g



BH-2 Liquefy.sum (Chinese)

LIQUEFACTION ANALYSIS SUMMARY

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Input File Name: G:\Liquefy5\444-19057 Carmenita BH-2 Chinese.liq
Title: 14820 & 14830 Carmenita Rd., Norwalk
Subtitle: 444-19057

Surface Elev.=78
Hole No.=BH-2
Depth of Hole= 51.00 ft
Water Table during Earthquake= 8.00 ft
Water Table during In-Situ Testing= 52.00 ft
Max. Acceleration= 0.71 g
Earthquake Magnitude= 7.29

Input Data:

Surface Elev.=78
Hole No.=BH-2
Depth of Hole=51.00 ft
Water Table during Earthquake= 8.00 ft
Water Table during In-Situ Testing= 52.00 ft
Max. Acceleration=0.71 g
Earthquake Magnitude=7.29
No-Liquefiable Soils: Based on Analysis

1. SPT or BPT Calculation.
 2. Settlement Analysis Method: Tokimatsu, M-correction
 3. Fines Correction for Liquefaction: Modify Stark/Olson
 4. Fine Correction for Settlement: During Liquefaction*
 5. Settlement Calculation in: All zones*
 6. Hammer Energy Ratio, Ce = 1.25
 7. Borehole Diameter, Cb= 1
 8. Sampling Method, Cs= 1
 9. User request factor of safety (apply to CSR) , User= 1.3
Plot one CSR curve (fs1=User)
 10. Use Curve Smoothing: Yes*
- * Recommended Options

BH-2 Liquefy.sum (Chinese)

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.00	8.66	104.50	18.00
2.00	8.66	104.50	18.00
5.00	8.00	118.90	NoLiq
10.00	7.00	118.90	46.70
15.00	14.00	123.30	32.70
20.00	19.00	123.30	3.70
25.00	13.33	128.30	NoLiq
30.00	20.00	128.30	15.60
35.00	13.33	139.60	NoLiq
40.00	19.00	139.60	NoLiq
45.00	54.00	112.40	3.50
50.00	85.00	112.40	5.10

Output Results:

Settlement of Saturated Sands=3.43 in.
 Settlement of Unsaturated Sands=0.47 in.
 Total Settlement of Saturated and Unsaturated Sands=3.90 in.
 Differential Settlement=1.951 to 2.576 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	0.20	0.60	5.00	3.43	0.47	3.90
0.05	0.20	0.60	5.00	3.43	0.47	3.90
0.10	0.20	0.60	5.00	3.43	0.47	3.90
0.15	0.20	0.60	5.00	3.43	0.47	3.90
0.20	0.20	0.60	5.00	3.43	0.47	3.90
0.25	0.20	0.60	5.00	3.43	0.47	3.90
0.30	0.20	0.60	5.00	3.43	0.47	3.90
0.35	0.20	0.60	5.00	3.43	0.47	3.90
0.40	0.20	0.60	5.00	3.43	0.47	3.90
0.45	0.20	0.60	5.00	3.43	0.47	3.90
0.50	0.20	0.60	5.00	3.43	0.47	3.90
0.55	0.20	0.60	5.00	3.43	0.47	3.90
0.60	0.20	0.60	5.00	3.43	0.47	3.90
0.65	0.20	0.60	5.00	3.43	0.47	3.90
0.70	0.20	0.60	5.00	3.43	0.47	3.90
0.75	0.20	0.60	5.00	3.43	0.47	3.90
0.80	0.20	0.60	5.00	3.43	0.47	3.90
0.85	0.20	0.60	5.00	3.43	0.47	3.90
0.90	0.20	0.60	5.00	3.43	0.47	3.90
0.95	0.20	0.60	5.00	3.43	0.47	3.90
1.00	0.20	0.60	5.00	3.43	0.47	3.90

BH-2 Liquefy.sum (Chinese)

1.05	0.20	0.60	5.00	3.43	0.47	3.90
1.10	0.20	0.60	5.00	3.43	0.47	3.90
1.15	0.20	0.60	5.00	3.43	0.47	3.90
1.20	0.20	0.60	5.00	3.43	0.47	3.90
1.25	0.20	0.60	5.00	3.43	0.47	3.90
1.30	0.20	0.60	5.00	3.43	0.47	3.90
1.35	0.20	0.60	5.00	3.43	0.47	3.89
1.40	0.20	0.60	5.00	3.43	0.47	3.89
1.45	0.20	0.60	5.00	3.43	0.46	3.89
1.50	0.20	0.60	5.00	3.43	0.46	3.89
1.55	0.20	0.60	5.00	3.43	0.46	3.89
1.60	0.20	0.60	5.00	3.43	0.46	3.89
1.65	0.20	0.60	5.00	3.43	0.46	3.89
1.70	0.20	0.60	5.00	3.43	0.46	3.89
1.75	0.20	0.60	5.00	3.43	0.46	3.89
1.80	0.20	0.60	5.00	3.43	0.46	3.89
1.85	0.20	0.60	5.00	3.43	0.46	3.89
1.90	0.20	0.60	5.00	3.43	0.46	3.89
1.95	0.20	0.60	5.00	3.43	0.46	3.89
2.00	0.20	0.60	5.00	3.43	0.46	3.88
2.05	0.20	0.60	5.00	3.43	0.45	3.88
2.10	0.20	0.60	5.00	3.43	0.45	3.88
2.15	0.21	0.60	5.00	3.43	0.45	3.88
2.20	0.21	0.60	5.00	3.43	0.45	3.88
2.25	0.21	0.60	5.00	3.43	0.45	3.88
2.30	0.22	0.60	5.00	3.43	0.45	3.88
2.35	0.22	0.60	5.00	3.43	0.45	3.87
2.40	0.23	0.60	5.00	3.43	0.44	3.87
2.45	0.23	0.60	5.00	3.43	0.44	3.87
2.50	0.23	0.60	5.00	3.43	0.44	3.87
2.55	0.24	0.60	5.00	3.43	0.44	3.87
2.60	0.24	0.60	5.00	3.43	0.44	3.86
2.65	0.25	0.60	5.00	3.43	0.43	3.86
2.70	0.25	0.60	5.00	3.43	0.43	3.86
2.75	0.25	0.60	5.00	3.43	0.43	3.86
2.80	0.26	0.60	5.00	3.43	0.43	3.86
2.85	0.26	0.60	5.00	3.43	0.42	3.85
2.90	0.27	0.60	5.00	3.43	0.42	3.85
2.95	0.27	0.60	5.00	3.43	0.42	3.85
3.00	0.28	0.60	5.00	3.43	0.42	3.84
3.05	0.28	0.60	5.00	3.43	0.41	3.84
3.10	0.28	0.60	5.00	3.43	0.41	3.84
3.15	0.29	0.60	5.00	3.43	0.40	3.83
3.20	0.29	0.60	5.00	3.43	0.40	3.83
3.25	0.30	0.60	5.00	3.43	0.40	3.83
3.30	0.31	0.60	5.00	3.43	0.39	3.82
3.35	0.31	0.60	5.00	3.43	0.39	3.82
3.40	0.32	0.60	5.00	3.43	0.38	3.81

BH-2 Liquefy.sum (Chinese)

3.45	0.32	0.60	5.00	3.43	0.38	3.81
3.50	0.33	0.60	5.00	3.43	0.37	3.80
3.55	0.34	0.60	5.00	3.43	0.37	3.80
3.60	0.34	0.60	5.00	3.43	0.36	3.79
3.65	0.35	0.60	5.00	3.43	0.35	3.78
3.70	0.36	0.60	5.00	3.43	0.35	3.78
3.75	0.37	0.60	5.00	3.43	0.34	3.77
3.80	0.38	0.60	5.00	3.43	0.33	3.76
3.85	0.39	0.60	5.00	3.43	0.33	3.75
3.90	0.40	0.60	5.00	3.43	0.32	3.75
3.95	0.41	0.60	5.00	3.43	0.31	3.74
4.00	0.43	0.60	5.00	3.43	0.30	3.73
4.05	0.46	0.60	5.00	3.43	0.30	3.73
4.10	0.54	0.60	5.00	3.43	0.29	3.72
4.15	0.54	0.59	5.00	3.43	0.28	3.71
4.20	0.54	0.59	5.00	3.43	0.28	3.71
4.25	0.54	0.59	5.00	3.43	0.27	3.70
4.30	0.54	0.59	5.00	3.43	0.26	3.69
4.35	0.54	0.59	5.00	3.43	0.26	3.69
4.40	0.54	0.59	5.00	3.43	0.25	3.68
4.45	0.54	0.59	5.00	3.43	0.24	3.67
4.50	0.54	0.59	5.00	3.43	0.24	3.67
4.55	0.54	0.59	5.00	3.43	0.23	3.66
4.60	0.54	0.59	5.00	3.43	0.23	3.66
4.65	0.54	0.59	5.00	3.43	0.23	3.66
4.70	0.54	0.59	5.00	3.43	0.23	3.66
4.75	0.54	0.59	5.00	3.43	0.23	3.66
4.80	0.54	0.59	5.00	3.43	0.23	3.66
4.85	0.54	0.59	5.00	3.43	0.23	3.66
4.90	0.54	0.59	5.00	3.43	0.23	3.66
4.95	0.54	0.59	5.00	3.43	0.23	3.66
5.00	0.54	0.59	5.00	3.43	0.23	3.66
5.05	0.54	0.59	5.00	3.43	0.23	3.66
5.10	0.54	0.59	5.00	3.43	0.23	3.66
5.15	0.54	0.59	5.00	3.43	0.23	3.66
5.20	0.54	0.59	5.00	3.43	0.23	3.66
5.25	0.54	0.59	5.00	3.43	0.23	3.66
5.30	0.54	0.59	5.00	3.43	0.23	3.66
5.35	0.54	0.59	5.00	3.43	0.23	3.65
5.40	0.54	0.59	5.00	3.43	0.23	3.65
5.45	0.54	0.59	5.00	3.43	0.22	3.65
5.50	0.54	0.59	5.00	3.43	0.22	3.65
5.55	0.54	0.59	5.00	3.43	0.22	3.65
5.60	0.54	0.59	5.00	3.43	0.22	3.65
5.65	0.54	0.59	5.00	3.43	0.22	3.65
5.70	0.54	0.59	5.00	3.43	0.22	3.65
5.75	0.54	0.59	5.00	3.43	0.22	3.65
5.80	0.54	0.59	5.00	3.43	0.22	3.65

BH-2 Liquefy.sum (Chinese)

5.85	0.54	0.59	5.00	3.43	0.22	3.65
5.90	0.54	0.59	5.00	3.43	0.22	3.65
5.95	0.54	0.59	5.00	3.43	0.22	3.64
6.00	0.54	0.59	5.00	3.43	0.21	3.64
6.05	0.54	0.59	5.00	3.43	0.21	3.64
6.10	0.54	0.59	5.00	3.43	0.21	3.64
6.15	0.54	0.59	5.00	3.43	0.21	3.64
6.20	0.54	0.59	5.00	3.43	0.21	3.64
6.25	0.54	0.59	5.00	3.43	0.21	3.64
6.30	0.54	0.59	5.00	3.43	0.21	3.63
6.35	0.54	0.59	5.00	3.43	0.20	3.63
6.40	0.54	0.59	5.00	3.43	0.20	3.63
6.45	0.54	0.59	5.00	3.43	0.20	3.63
6.50	0.54	0.59	5.00	3.43	0.20	3.63
6.55	0.54	0.59	5.00	3.43	0.19	3.62
6.60	0.54	0.59	5.00	3.43	0.19	3.62
6.65	0.54	0.59	5.00	3.43	0.19	3.62
6.70	0.54	0.59	5.00	3.43	0.18	3.61
6.75	0.54	0.59	5.00	3.43	0.18	3.61
6.80	0.54	0.59	5.00	3.43	0.18	3.61
6.85	0.54	0.59	5.00	3.43	0.17	3.60
6.90	0.48	0.59	5.00	3.43	0.17	3.60
6.95	0.45	0.59	5.00	3.43	0.16	3.59
7.00	0.43	0.59	5.00	3.43	0.15	3.58
7.05	0.42	0.59	5.00	3.43	0.15	3.58
7.10	0.41	0.59	5.00	3.43	0.14	3.57
7.15	0.40	0.59	5.00	3.43	0.13	3.56
7.20	0.39	0.59	5.00	3.43	0.13	3.55
7.25	0.39	0.59	5.00	3.43	0.12	3.55
7.30	0.38	0.59	5.00	3.43	0.11	3.54
7.35	0.38	0.59	5.00	3.43	0.10	3.53
7.40	0.37	0.59	5.00	3.43	0.10	3.52
7.45	0.36	0.59	5.00	3.43	0.09	3.52
7.50	0.36	0.59	5.00	3.43	0.08	3.51
7.55	0.36	0.59	5.00	3.43	0.07	3.50
7.60	0.35	0.59	5.00	3.43	0.07	3.49
7.65	0.35	0.59	5.00	3.43	0.06	3.49
7.70	0.34	0.59	5.00	3.43	0.05	3.48
7.75	0.34	0.59	5.00	3.43	0.04	3.47
7.80	0.33	0.59	5.00	3.43	0.03	3.46
7.85	0.33	0.59	5.00	3.43	0.02	3.45
7.90	0.33	0.59	5.00	3.43	0.02	3.45
7.95	0.32	0.59	5.00	3.43	0.01	3.44
8.00	0.32	0.59	0.54*	3.43	0.00	3.43
8.05	0.32	0.59	0.53*	3.42	0.00	3.42
8.10	0.31	0.59	0.53*	3.42	0.00	3.42
8.15	0.31	0.60	0.52*	3.41	0.00	3.41
8.20	0.31	0.60	0.51*	3.40	0.00	3.40

BH-2 Liquefy.sum (Chinese)

8.25	0.33	0.60	0.55*	3.39	0.00	3.39
8.30	0.33	0.60	0.54*	3.39	0.00	3.39
8.35	0.32	0.60	0.53*	3.38	0.00	3.38
8.40	0.32	0.60	0.53*	3.37	0.00	3.37
8.45	0.31	0.61	0.52*	3.37	0.00	3.37
8.50	0.31	0.61	0.51*	3.36	0.00	3.36
8.55	0.31	0.61	0.51*	3.35	0.00	3.35
8.60	0.31	0.61	0.50*	3.35	0.00	3.35
8.65	0.30	0.61	0.49*	3.34	0.00	3.34
8.70	0.30	0.62	0.49*	3.33	0.00	3.33
8.75	0.30	0.62	0.48*	3.32	0.00	3.32
8.80	0.29	0.62	0.47*	3.32	0.00	3.32
8.85	0.29	0.62	0.47*	3.31	0.00	3.31
8.90	0.29	0.62	0.46*	3.30	0.00	3.30
8.95	0.28	0.62	0.46*	3.30	0.00	3.30
9.00	0.28	0.63	0.45*	3.29	0.00	3.29
9.05	0.28	0.63	0.44*	3.28	0.00	3.28
9.10	0.28	0.63	0.44*	3.27	0.00	3.27
9.15	0.27	0.63	0.43*	3.26	0.00	3.26
9.20	0.27	0.63	0.43*	3.26	0.00	3.26
9.25	0.27	0.64	0.42*	3.25	0.00	3.25
9.30	0.27	0.64	0.42*	3.24	0.00	3.24
9.35	0.26	0.64	0.41*	3.23	0.00	3.23
9.40	0.26	0.64	0.41*	3.22	0.00	3.22
9.45	0.26	0.64	0.40*	3.22	0.00	3.22
9.50	0.26	0.64	0.40*	3.21	0.00	3.21
9.55	0.25	0.64	0.39*	3.20	0.00	3.20
9.60	0.25	0.65	0.39*	3.19	0.00	3.19
9.65	0.25	0.65	0.39*	3.18	0.00	3.18
9.70	0.25	0.65	0.38*	3.17	0.00	3.17
9.75	0.25	0.65	0.38*	3.17	0.00	3.17
9.80	0.24	0.65	0.37*	3.16	0.00	3.16
9.85	0.24	0.65	0.37*	3.15	0.00	3.15
9.90	0.24	0.66	0.36*	3.14	0.00	3.14
9.95	0.24	0.66	0.36*	3.13	0.00	3.13
10.00	0.23	0.66	0.36*	3.12	0.00	3.12
10.05	0.23	0.66	0.36*	3.11	0.00	3.11
10.10	0.24	0.66	0.36*	3.10	0.00	3.10
10.15	0.24	0.66	0.36*	3.10	0.00	3.10
10.20	0.24	0.67	0.36*	3.09	0.00	3.09
10.25	0.24	0.67	0.36*	3.08	0.00	3.08
10.30	0.24	0.67	0.36*	3.07	0.00	3.07
10.35	0.24	0.67	0.36*	3.06	0.00	3.06
10.40	0.24	0.67	0.36*	3.05	0.00	3.05
10.45	0.24	0.67	0.36*	3.04	0.00	3.04
10.50	0.24	0.67	0.35*	3.03	0.00	3.03
10.55	0.24	0.68	0.35*	3.02	0.00	3.02
10.60	0.24	0.68	0.35*	3.02	0.00	3.02

BH-2 Liquefy.sum (Chinese)

10.65	0.24	0.68	0.35*	3.01	0.00	3.01
10.70	0.24	0.68	0.35*	3.00	0.00	3.00
10.75	0.24	0.68	0.35*	2.99	0.00	2.99
10.80	0.24	0.68	0.35*	2.98	0.00	2.98
10.85	0.24	0.68	0.35*	2.97	0.00	2.97
10.90	0.24	0.69	0.35*	2.96	0.00	2.96
10.95	0.24	0.69	0.35*	2.95	0.00	2.95
11.00	0.24	0.69	0.35*	2.95	0.00	2.95
11.05	0.24	0.69	0.35*	2.94	0.00	2.94
11.10	0.24	0.69	0.35*	2.93	0.00	2.93
11.15	0.25	0.69	0.35*	2.92	0.00	2.92
11.20	0.25	0.69	0.35*	2.91	0.00	2.91
11.25	0.25	0.69	0.35*	2.90	0.00	2.90
11.30	0.25	0.70	0.35*	2.89	0.00	2.89
11.35	0.25	0.70	0.35*	2.89	0.00	2.89
11.40	0.25	0.70	0.35*	2.88	0.00	2.88
11.45	0.25	0.70	0.35*	2.87	0.00	2.87
11.50	0.25	0.70	0.35*	2.86	0.00	2.86
11.55	0.25	0.70	0.35*	2.85	0.00	2.85
11.60	0.25	0.70	0.35*	2.84	0.00	2.84
11.65	0.25	0.70	0.35*	2.83	0.00	2.83
11.70	0.25	0.71	0.35*	2.83	0.00	2.83
11.75	0.25	0.71	0.35*	2.82	0.00	2.82
11.80	0.25	0.71	0.35*	2.81	0.00	2.81
11.85	0.25	0.71	0.35*	2.80	0.00	2.80
11.90	0.25	0.71	0.35*	2.79	0.00	2.79
11.95	0.25	0.71	0.35*	2.78	0.00	2.78
12.00	0.25	0.71	0.35*	2.77	0.00	2.77
12.05	0.25	0.71	0.35*	2.77	0.00	2.77
12.10	0.25	0.72	0.35*	2.76	0.00	2.76
12.15	0.25	0.72	0.35*	2.75	0.00	2.75
12.20	0.25	0.72	0.35*	2.74	0.00	2.74
12.25	0.25	0.72	0.35*	2.73	0.00	2.73
12.30	0.25	0.72	0.35*	2.72	0.00	2.72
12.35	0.26	0.72	0.35*	2.72	0.00	2.72
12.40	0.26	0.72	0.35*	2.71	0.00	2.71
12.45	0.26	0.72	0.35*	2.70	0.00	2.70
12.50	0.26	0.72	0.35*	2.69	0.00	2.69
12.55	0.26	0.73	0.35*	2.68	0.00	2.68
12.60	0.26	0.73	0.35*	2.67	0.00	2.67
12.65	0.26	0.73	0.35*	2.67	0.00	2.67
12.70	0.26	0.73	0.35*	2.66	0.00	2.66
12.75	0.26	0.73	0.35*	2.65	0.00	2.65
12.80	0.26	0.73	0.35*	2.64	0.00	2.64
12.85	0.26	0.73	0.35*	2.63	0.00	2.63
12.90	0.26	0.73	0.35*	2.62	0.00	2.62
12.95	0.26	0.73	0.35*	2.62	0.00	2.62
13.00	0.26	0.74	0.35*	2.61	0.00	2.61

BH-2 Liquefy.sum (Chinese)

13.05	0.26	0.74	0.35*	2.60	0.00	2.60
13.10	0.26	0.74	0.35*	2.59	0.00	2.59
13.15	0.26	0.74	0.35*	2.58	0.00	2.58
13.20	0.26	0.74	0.35*	2.58	0.00	2.58
13.25	0.26	0.74	0.35*	2.57	0.00	2.57
13.30	0.26	0.74	0.35*	2.56	0.00	2.56
13.35	0.26	0.74	0.35*	2.55	0.00	2.55
13.40	0.26	0.74	0.35*	2.54	0.00	2.54
13.45	0.26	0.75	0.35*	2.53	0.00	2.53
13.50	0.26	0.75	0.35*	2.53	0.00	2.53
13.55	0.26	0.75	0.35*	2.52	0.00	2.52
13.60	0.26	0.75	0.35*	2.51	0.00	2.51
13.65	0.26	0.75	0.35*	2.50	0.00	2.50
13.70	0.26	0.75	0.35*	2.49	0.00	2.49
13.75	0.27	0.75	0.35*	2.49	0.00	2.49
13.80	0.27	0.75	0.35*	2.48	0.00	2.48
13.85	0.27	0.75	0.35*	2.47	0.00	2.47
13.90	0.27	0.75	0.35*	2.46	0.00	2.46
13.95	0.27	0.75	0.35*	2.45	0.00	2.45
14.00	0.27	0.76	0.35*	2.45	0.00	2.45
14.05	0.27	0.76	0.35*	2.44	0.00	2.44
14.10	0.27	0.76	0.35*	2.43	0.00	2.43
14.15	0.27	0.76	0.35*	2.42	0.00	2.42
14.20	0.27	0.76	0.35*	2.41	0.00	2.41
14.25	0.27	0.76	0.35*	2.41	0.00	2.41
14.30	0.27	0.76	0.35*	2.40	0.00	2.40
14.35	0.27	0.76	0.35*	2.39	0.00	2.39
14.40	0.27	0.76	0.35*	2.38	0.00	2.38
14.45	0.27	0.76	0.35*	2.37	0.00	2.37
14.50	0.27	0.76	0.35*	2.37	0.00	2.37
14.55	0.27	0.77	0.35*	2.36	0.00	2.36
14.60	0.27	0.77	0.35*	2.35	0.00	2.35
14.65	0.27	0.77	0.35*	2.34	0.00	2.34
14.70	0.27	0.77	0.35*	2.33	0.00	2.33
14.75	0.27	0.77	0.35*	2.33	0.00	2.33
14.80	0.30	0.77	0.39*	2.32	0.00	2.32
14.85	0.30	0.77	0.39*	2.31	0.00	2.31
14.90	0.30	0.77	0.39*	2.30	0.00	2.30
14.95	0.30	0.77	0.39*	2.30	0.00	2.30
15.00	0.30	0.77	0.39*	2.29	0.00	2.29
15.05	0.30	0.77	0.39*	2.28	0.00	2.28
15.10	0.30	0.78	0.39*	2.28	0.00	2.28
15.15	0.30	0.78	0.39*	2.27	0.00	2.27
15.20	0.30	0.78	0.39*	2.26	0.00	2.26
15.25	0.30	0.78	0.39*	2.25	0.00	2.25
15.30	0.30	0.78	0.38*	2.25	0.00	2.25
15.35	0.30	0.78	0.38*	2.24	0.00	2.24
15.40	0.30	0.78	0.38*	2.23	0.00	2.23

BH-2 Liquefy.sum (Chinese)

15.45	0.30	0.78	0.38*	2.22	0.00	2.22
15.50	0.30	0.78	0.38*	2.22	0.00	2.22
15.55	0.30	0.78	0.38*	2.21	0.00	2.21
15.60	0.30	0.78	0.38*	2.20	0.00	2.20
15.65	0.30	0.78	0.38*	2.20	0.00	2.20
15.70	0.29	0.78	0.38*	2.19	0.00	2.19
15.75	0.29	0.79	0.37*	2.18	0.00	2.18
15.80	0.29	0.79	0.37*	2.17	0.00	2.17
15.85	0.29	0.79	0.37*	2.17	0.00	2.17
15.90	0.29	0.79	0.37*	2.16	0.00	2.16
15.95	0.29	0.79	0.37*	2.15	0.00	2.15
16.00	0.29	0.79	0.37*	2.14	0.00	2.14
16.05	0.29	0.79	0.37*	2.14	0.00	2.14
16.10	0.29	0.79	0.37*	2.13	0.00	2.13
16.15	0.29	0.79	0.36*	2.12	0.00	2.12
16.20	0.29	0.79	0.36*	2.11	0.00	2.11
16.25	0.29	0.79	0.36*	2.11	0.00	2.11
16.30	0.29	0.79	0.36*	2.10	0.00	2.10
16.35	0.29	0.79	0.36*	2.09	0.00	2.09
16.40	0.29	0.80	0.36*	2.08	0.00	2.08
16.45	0.29	0.80	0.36*	2.08	0.00	2.08
16.50	0.28	0.80	0.36*	2.07	0.00	2.07
16.55	0.28	0.80	0.36*	2.06	0.00	2.06
16.60	0.28	0.80	0.36*	2.05	0.00	2.05
16.65	0.28	0.80	0.35*	2.05	0.00	2.05
16.70	0.28	0.80	0.35*	2.04	0.00	2.04
16.75	0.28	0.80	0.35*	2.03	0.00	2.03
16.80	0.28	0.80	0.35*	2.02	0.00	2.02
16.85	0.28	0.80	0.35*	2.02	0.00	2.02
16.90	0.28	0.80	0.35*	2.01	0.00	2.01
16.95	0.28	0.80	0.35*	2.00	0.00	2.00
17.00	0.28	0.80	0.35*	1.99	0.00	1.99
17.05	0.28	0.80	0.35*	1.98	0.00	1.98
17.10	0.28	0.81	0.34*	1.98	0.00	1.98
17.15	0.28	0.81	0.34*	1.97	0.00	1.97
17.20	0.28	0.81	0.34*	1.96	0.00	1.96
17.25	0.28	0.81	0.34*	1.95	0.00	1.95
17.30	0.28	0.81	0.34*	1.95	0.00	1.95
17.35	0.27	0.81	0.34*	1.94	0.00	1.94
17.40	0.27	0.81	0.34*	1.93	0.00	1.93
17.45	0.27	0.81	0.34*	1.92	0.00	1.92
17.50	0.27	0.81	0.34*	1.91	0.00	1.91
17.55	0.27	0.81	0.34*	1.91	0.00	1.91
17.60	0.27	0.81	0.34*	1.90	0.00	1.90
17.65	0.27	0.81	0.33*	1.89	0.00	1.89
17.70	0.27	0.81	0.33*	1.88	0.00	1.88
17.75	0.27	0.81	0.33*	1.88	0.00	1.88
17.80	0.27	0.81	0.33*	1.87	0.00	1.87

BH-2 Liquefy.sum (Chinese)

17.85	0.27	0.81	0.33*	1.86	0.00	1.86
17.90	0.27	0.82	0.33*	1.85	0.00	1.85
17.95	0.27	0.82	0.33*	1.84	0.00	1.84
18.00	0.27	0.82	0.33*	1.84	0.00	1.84
18.05	0.27	0.82	0.33*	1.83	0.00	1.83
18.10	0.27	0.82	0.33*	1.82	0.00	1.82
18.15	0.27	0.82	0.32*	1.81	0.00	1.81
18.20	0.27	0.82	0.32*	1.80	0.00	1.80
18.25	0.26	0.82	0.32*	1.80	0.00	1.80
18.30	0.26	0.82	0.32*	1.79	0.00	1.79
18.35	0.26	0.82	0.32*	1.78	0.00	1.78
18.40	0.26	0.82	0.32*	1.77	0.00	1.77
18.45	0.26	0.82	0.32*	1.76	0.00	1.76
18.50	0.26	0.82	0.32*	1.75	0.00	1.75
18.55	0.26	0.82	0.32*	1.75	0.00	1.75
18.60	0.26	0.82	0.32*	1.74	0.00	1.74
18.65	0.26	0.82	0.32*	1.73	0.00	1.73
18.70	0.26	0.82	0.31*	1.72	0.00	1.72
18.75	0.26	0.83	0.31*	1.71	0.00	1.71
18.80	0.26	0.83	0.31*	1.71	0.00	1.71
18.85	0.26	0.83	0.31*	1.70	0.00	1.70
18.90	0.26	0.83	0.31*	1.69	0.00	1.69
18.95	0.26	0.83	0.31*	1.68	0.00	1.68
19.00	0.26	0.83	0.31*	1.67	0.00	1.67
19.05	0.26	0.83	0.31*	1.66	0.00	1.66
19.10	0.26	0.83	0.31*	1.66	0.00	1.66
19.15	0.25	0.83	0.31*	1.65	0.00	1.65
19.20	0.25	0.83	0.31*	1.64	0.00	1.64
19.25	0.25	0.83	0.31*	1.63	0.00	1.63
19.30	0.25	0.83	0.30*	1.62	0.00	1.62
19.35	0.25	0.83	0.30*	1.61	0.00	1.61
19.40	0.25	0.83	0.30*	1.61	0.00	1.61
19.45	0.25	0.83	0.30*	1.60	0.00	1.60
19.50	0.25	0.83	0.30*	1.59	0.00	1.59
19.55	0.25	0.83	0.30*	1.58	0.00	1.58
19.60	0.25	0.83	0.30*	1.57	0.00	1.57
19.65	0.25	0.84	0.30*	1.56	0.00	1.56
19.70	0.25	0.84	0.30*	1.55	0.00	1.55
19.75	0.25	0.84	0.30*	1.55	0.00	1.55
19.80	0.25	0.84	0.30*	1.54	0.00	1.54
19.85	0.25	0.84	0.30*	1.53	0.00	1.53
19.90	0.25	0.84	0.30*	1.52	0.00	1.52
19.95	0.25	0.84	0.30*	1.51	0.00	1.51
20.00	0.25	0.84	0.30*	1.50	0.00	1.50
20.05	0.25	0.84	0.30*	1.50	0.00	1.50
20.10	0.25	0.84	0.30*	1.49	0.00	1.49
20.15	0.25	0.84	0.30*	1.48	0.00	1.48
20.20	0.25	0.84	0.30*	1.47	0.00	1.47

BH-2 Liquefy.sum (Chinese)

20.25	0.25	0.84	0.30*	1.46	0.00	1.46
20.30	0.26	0.84	0.31*	1.45	0.00	1.45
20.35	0.26	0.84	0.31*	1.44	0.00	1.44
20.40	0.26	0.84	0.31*	1.44	0.00	1.44
20.45	0.26	0.84	0.31*	1.43	0.00	1.43
20.50	0.26	0.84	0.31*	1.42	0.00	1.42
20.55	0.27	0.84	0.32*	1.41	0.00	1.41
20.60	0.27	0.84	0.32*	1.40	0.00	1.40
20.65	0.27	0.85	0.32*	1.40	0.00	1.40
20.70	0.27	0.85	0.32*	1.39	0.00	1.39
20.75	0.28	0.85	0.33*	1.38	0.00	1.38
20.80	0.28	0.85	0.33*	1.37	0.00	1.37
20.85	0.28	0.85	0.33*	1.36	0.00	1.36
20.90	0.28	0.85	0.33*	1.36	0.00	1.36
20.95	0.28	0.85	0.33*	1.35	0.00	1.35
21.00	0.29	0.85	0.34*	1.34	0.00	1.34
21.05	0.29	0.85	0.34*	1.33	0.00	1.33
21.10	0.29	0.85	0.34*	1.33	0.00	1.33
21.15	0.29	0.85	0.35*	1.32	0.00	1.32
21.20	0.30	0.85	0.35*	1.31	0.00	1.31
21.25	0.30	0.85	0.35*	1.30	0.00	1.30
21.30	0.30	0.85	0.35*	1.30	0.00	1.30
21.35	0.30	0.85	0.36*	1.29	0.00	1.29
21.40	0.31	0.85	0.36*	1.28	0.00	1.28
21.45	0.31	0.85	0.36*	1.28	0.00	1.28
21.50	0.31	0.85	0.37*	1.27	0.00	1.27
21.55	0.31	0.85	0.37*	1.26	0.00	1.26
21.60	0.32	0.85	0.37*	1.25	0.00	1.25
21.65	0.32	0.85	0.37*	1.25	0.00	1.25
21.70	0.32	0.85	0.38*	1.24	0.00	1.24
21.75	0.33	0.85	0.38*	1.23	0.00	1.23
21.80	0.33	0.86	0.38*	1.23	0.00	1.23
21.85	0.33	0.86	0.39*	1.22	0.00	1.22
21.90	0.34	0.86	0.39*	1.21	0.00	1.21
21.95	0.34	0.86	0.40*	1.21	0.00	1.21
22.00	0.34	0.86	0.40*	1.20	0.00	1.20
22.05	0.35	0.86	0.40*	1.20	0.00	1.20
22.10	0.35	0.86	0.41*	1.19	0.00	1.19
22.15	0.35	0.86	0.41*	1.18	0.00	1.18
22.20	0.36	0.86	0.41*	1.18	0.00	1.18
22.25	0.36	0.86	0.42*	1.17	0.00	1.17
22.30	0.36	0.86	0.42*	1.16	0.00	1.16
22.35	0.37	0.86	0.43*	1.16	0.00	1.16
22.40	0.37	0.86	0.43*	1.15	0.00	1.15
22.45	0.38	0.86	0.44*	1.15	0.00	1.15
22.50	0.38	0.86	0.44*	1.14	0.00	1.14
22.55	0.39	0.86	0.45*	1.13	0.00	1.13
22.60	0.39	0.86	0.46*	1.13	0.00	1.13

BH-2 Liquefy.sum (Chinese)

22.65	0.40	0.86	0.46*	1.12	0.00	1.12
22.70	0.41	0.86	0.47*	1.12	0.00	1.12
22.75	0.41	0.86	0.48*	1.11	0.00	1.11
22.80	0.42	0.86	0.49*	1.11	0.00	1.11
22.85	0.43	0.86	0.50*	1.10	0.00	1.10
22.90	0.45	0.86	0.52*	1.10	0.00	1.10
22.95	0.46	0.86	0.54*	1.09	0.00	1.09
23.00	0.49	0.86	0.57*	1.09	0.00	1.09
23.05	0.54	0.86	0.62*	1.08	0.00	1.08
23.10	0.54	0.87	0.62*	1.08	0.00	1.08
23.15	0.54	0.87	0.62*	1.08	0.00	1.08
23.20	0.54	0.87	0.62*	1.07	0.00	1.07
23.25	0.54	0.87	0.62*	1.07	0.00	1.07
23.30	0.54	0.87	0.62*	1.06	0.00	1.06
23.35	0.54	0.87	0.62*	1.06	0.00	1.06
23.40	0.54	0.87	0.62*	1.06	0.00	1.06
23.45	0.54	0.87	0.62*	1.05	0.00	1.05
23.50	0.54	0.87	0.62*	1.05	0.00	1.05
23.55	0.54	0.87	0.62*	1.05	0.00	1.05
23.60	0.54	0.87	0.62*	1.04	0.00	1.04
23.65	0.54	0.87	0.62*	1.04	0.00	1.04
23.70	0.54	0.87	0.62*	1.04	0.00	1.04
23.75	0.54	0.87	0.62*	1.03	0.00	1.03
23.80	0.54	0.87	0.62*	1.03	0.00	1.03
23.85	0.54	0.87	0.62*	1.03	0.00	1.03
23.90	0.54	0.87	0.62*	1.03	0.00	1.03
23.95	0.54	0.87	0.62*	1.02	0.00	1.02
24.00	0.54	0.87	0.62*	1.02	0.00	1.02
24.05	0.54	0.87	0.62*	1.02	0.00	1.02
24.10	0.54	0.87	0.62*	1.02	0.00	1.02
24.15	0.54	0.87	0.62*	1.02	0.00	1.02
24.20	0.54	0.87	0.62*	1.02	0.00	1.02
24.25	0.54	0.87	0.62*	1.02	0.00	1.02
24.30	0.54	0.87	0.62*	1.01	0.00	1.01
24.35	0.54	0.87	0.62*	1.01	0.00	1.01
24.40	0.54	0.87	0.62*	1.01	0.00	1.01
24.45	0.54	0.87	0.62*	1.01	0.00	1.01
24.50	0.54	0.87	0.61*	1.01	0.00	1.01
24.55	0.54	0.87	0.61*	1.01	0.00	1.01
24.60	0.54	0.87	0.61*	1.01	0.00	1.01
24.65	0.54	0.88	0.61*	1.01	0.00	1.01
24.70	0.54	0.88	0.61*	1.01	0.00	1.01
24.75	0.54	0.88	0.61*	1.01	0.00	1.01
24.80	0.54	0.88	0.61*	1.01	0.00	1.01
24.85	0.54	0.88	0.61*	1.00	0.00	1.00
24.90	0.54	0.88	0.61*	1.00	0.00	1.00
24.95	0.54	0.88	0.61*	1.00	0.00	1.00
25.00	0.54	0.88	0.61*	1.00	0.00	1.00

BH-2 Liquefy.sum (Chinese)

25.05	0.54	0.88	0.61*	1.00	0.00	1.00
25.10	0.54	0.88	0.61*	1.00	0.00	1.00
25.15	0.54	0.88	0.61*	1.00	0.00	1.00
25.20	0.54	0.88	0.61*	1.00	0.00	1.00
25.25	0.54	0.88	0.61*	1.00	0.00	1.00
25.30	0.54	0.88	0.61*	1.00	0.00	1.00
25.35	0.54	0.88	0.61*	1.00	0.00	1.00
25.40	0.54	0.88	0.61*	1.00	0.00	1.00
25.45	0.54	0.88	0.61*	1.00	0.00	1.00
25.50	0.54	0.88	0.61*	1.00	0.00	1.00
25.55	0.54	0.88	0.61*	1.00	0.00	1.00
25.60	0.54	0.88	0.61*	0.99	0.00	0.99
25.65	0.54	0.88	0.61*	0.99	0.00	0.99
25.70	0.54	0.88	0.61*	0.99	0.00	0.99
25.75	0.54	0.88	0.61*	0.99	0.00	0.99
25.80	0.54	0.88	0.61*	0.99	0.00	0.99
25.85	0.54	0.88	0.61*	0.99	0.00	0.99
25.90	0.54	0.88	0.61*	0.99	0.00	0.99
25.95	0.54	0.88	0.61*	0.99	0.00	0.99
26.00	0.54	0.88	0.61*	0.99	0.00	0.99
26.05	0.54	0.88	0.61*	0.98	0.00	0.98
26.10	0.54	0.88	0.61*	0.98	0.00	0.98
26.15	0.54	0.88	0.61*	0.98	0.00	0.98
26.20	0.54	0.88	0.61*	0.98	0.00	0.98
26.25	0.54	0.88	0.61*	0.98	0.00	0.98
26.30	0.54	0.88	0.61*	0.97	0.00	0.97
26.35	0.54	0.88	0.61*	0.97	0.00	0.97
26.40	0.54	0.88	0.61*	0.97	0.00	0.97
26.45	0.54	0.88	0.61*	0.97	0.00	0.97
26.50	0.54	0.88	0.61*	0.96	0.00	0.96
26.55	0.54	0.88	0.61*	0.96	0.00	0.96
26.60	0.54	0.89	0.61*	0.96	0.00	0.96
26.65	0.54	0.89	0.61*	0.95	0.00	0.95
26.70	0.54	0.89	0.61*	0.95	0.00	0.95
26.75	0.54	0.89	0.61*	0.95	0.00	0.95
26.80	0.54	0.89	0.61*	0.94	0.00	0.94
26.85	0.54	0.89	0.61*	0.94	0.00	0.94
26.90	0.54	0.89	0.61*	0.93	0.00	0.93
26.95	0.54	0.89	0.61*	0.93	0.00	0.93
27.00	0.54	0.89	0.61*	0.93	0.00	0.93
27.05	0.50	0.89	0.56*	0.92	0.00	0.92
27.10	0.47	0.89	0.53*	0.92	0.00	0.92
27.15	0.45	0.89	0.51*	0.91	0.00	0.91
27.20	0.44	0.89	0.49*	0.91	0.00	0.91
27.25	0.43	0.89	0.48*	0.90	0.00	0.90
27.30	0.42	0.89	0.47*	0.90	0.00	0.90
27.35	0.41	0.89	0.46*	0.89	0.00	0.89
27.40	0.40	0.89	0.45*	0.89	0.00	0.89

BH-2 Liquefy.sum (Chinese)

27.45	0.40	0.89	0.44*	0.88	0.00	0.88
27.50	0.39	0.89	0.44*	0.88	0.00	0.88
27.55	0.38	0.89	0.43*	0.87	0.00	0.87
27.60	0.38	0.89	0.43*	0.87	0.00	0.87
27.65	0.37	0.89	0.42*	0.86	0.00	0.86
27.70	0.37	0.89	0.41*	0.85	0.00	0.85
27.75	0.36	0.89	0.41*	0.85	0.00	0.85
27.80	0.36	0.89	0.40*	0.84	0.00	0.84
27.85	0.36	0.89	0.40*	0.84	0.00	0.84
27.90	0.38	0.89	0.42*	0.83	0.00	0.83
27.95	0.37	0.89	0.42*	0.82	0.00	0.82
28.00	0.37	0.89	0.41*	0.82	0.00	0.82
28.05	0.36	0.89	0.41*	0.81	0.00	0.81
28.10	0.36	0.89	0.40*	0.81	0.00	0.81
28.15	0.35	0.89	0.40*	0.80	0.00	0.80
28.20	0.35	0.89	0.39*	0.79	0.00	0.79
28.25	0.35	0.89	0.39*	0.79	0.00	0.79
28.30	0.34	0.89	0.38*	0.78	0.00	0.78
28.35	0.34	0.89	0.38*	0.77	0.00	0.77
28.40	0.34	0.89	0.38*	0.77	0.00	0.77
28.45	0.33	0.89	0.37*	0.76	0.00	0.76
28.50	0.33	0.89	0.37*	0.76	0.00	0.76
28.55	0.33	0.89	0.36*	0.75	0.00	0.75
28.60	0.32	0.89	0.36*	0.74	0.00	0.74
28.65	0.32	0.89	0.36*	0.74	0.00	0.74
28.70	0.32	0.89	0.35*	0.73	0.00	0.73
28.75	0.31	0.89	0.35*	0.72	0.00	0.72
28.80	0.31	0.89	0.35*	0.71	0.00	0.71
28.85	0.31	0.89	0.34*	0.71	0.00	0.71
28.90	0.30	0.89	0.34*	0.70	0.00	0.70
28.95	0.30	0.89	0.34*	0.69	0.00	0.69
29.00	0.30	0.90	0.33*	0.69	0.00	0.69
29.05	0.30	0.90	0.33*	0.68	0.00	0.68
29.10	0.29	0.90	0.33*	0.67	0.00	0.67
29.15	0.29	0.90	0.32*	0.66	0.00	0.66
29.20	0.29	0.90	0.32*	0.66	0.00	0.66
29.25	0.29	0.90	0.32*	0.65	0.00	0.65
29.30	0.28	0.90	0.32*	0.64	0.00	0.64
29.35	0.28	0.90	0.31*	0.63	0.00	0.63
29.40	0.28	0.90	0.31*	0.63	0.00	0.63
29.45	0.28	0.90	0.31*	0.62	0.00	0.62
29.50	0.27	0.90	0.30*	0.61	0.00	0.61
29.55	0.27	0.90	0.30*	0.60	0.00	0.60
29.60	0.27	0.90	0.30*	0.60	0.00	0.60
29.65	0.27	0.90	0.30*	0.59	0.00	0.59
29.70	0.26	0.90	0.29*	0.58	0.00	0.58
29.75	0.26	0.90	0.29*	0.57	0.00	0.57
29.80	0.26	0.90	0.29*	0.56	0.00	0.56

BH-2 Liquefy.sum (Chinese)

29.85	0.26	0.90	0.29*	0.56	0.00	0.56
29.90	0.25	0.90	0.28*	0.55	0.00	0.55
29.95	0.25	0.90	0.28*	0.54	0.00	0.54
30.00	0.25	0.90	0.28*	0.53	0.00	0.53
30.05	0.25	0.90	0.28*	0.52	0.00	0.52
30.10	0.25	0.90	0.28*	0.51	0.00	0.51
30.15	0.25	0.90	0.28*	0.51	0.00	0.51
30.20	0.26	0.90	0.29*	0.50	0.00	0.50
30.25	0.26	0.90	0.29*	0.49	0.00	0.49
30.30	0.26	0.90	0.29*	0.48	0.00	0.48
30.35	0.26	0.90	0.29*	0.47	0.00	0.47
30.40	0.26	0.90	0.29*	0.46	0.00	0.46
30.45	0.26	0.90	0.30*	0.46	0.00	0.46
30.50	0.27	0.90	0.30*	0.45	0.00	0.45
30.55	0.27	0.90	0.30*	0.44	0.00	0.44
30.60	0.27	0.90	0.30*	0.43	0.00	0.43
30.65	0.27	0.90	0.30*	0.43	0.00	0.43
30.70	0.27	0.90	0.30*	0.42	0.00	0.42
30.75	0.28	0.90	0.31*	0.41	0.00	0.41
30.80	0.28	0.90	0.31*	0.40	0.00	0.40
30.85	0.28	0.90	0.31*	0.39	0.00	0.39
30.90	0.28	0.90	0.31*	0.39	0.00	0.39
30.95	0.28	0.90	0.32*	0.38	0.00	0.38
31.00	0.28	0.90	0.32*	0.37	0.00	0.37
31.05	0.29	0.90	0.32*	0.36	0.00	0.36
31.10	0.29	0.90	0.32*	0.36	0.00	0.36
31.15	0.29	0.90	0.32*	0.35	0.00	0.35
31.20	0.29	0.90	0.33*	0.34	0.00	0.34
31.25	0.29	0.89	0.33*	0.33	0.00	0.33
31.30	0.30	0.89	0.33*	0.33	0.00	0.33
31.35	0.30	0.89	0.33*	0.32	0.00	0.32
31.40	0.30	0.89	0.34*	0.31	0.00	0.31
31.45	0.30	0.89	0.34*	0.31	0.00	0.31
31.50	0.30	0.89	0.34*	0.30	0.00	0.30
31.55	0.31	0.89	0.34*	0.29	0.00	0.29
31.60	0.31	0.89	0.35*	0.29	0.00	0.29
31.65	0.31	0.89	0.35*	0.28	0.00	0.28
31.70	0.31	0.89	0.35*	0.27	0.00	0.27
31.75	0.32	0.89	0.35*	0.26	0.00	0.26
31.80	0.32	0.89	0.36*	0.26	0.00	0.26
31.85	0.32	0.89	0.36*	0.25	0.00	0.25
31.90	0.32	0.89	0.36*	0.24	0.00	0.24
31.95	0.33	0.89	0.37*	0.24	0.00	0.24
32.00	0.33	0.89	0.37*	0.23	0.00	0.23
32.05	0.33	0.89	0.37*	0.22	0.00	0.22
32.10	0.33	0.89	0.38*	0.22	0.00	0.22
32.15	0.34	0.89	0.38*	0.21	0.00	0.21
32.20	0.34	0.89	0.38*	0.21	0.00	0.21

BH-2 Liquefy.sum (Chinese)

32.25	0.34	0.89	0.39*	0.20	0.00	0.20
32.30	0.35	0.89	0.39*	0.19	0.00	0.19
32.35	0.35	0.89	0.39*	0.19	0.00	0.19
32.40	0.35	0.89	0.40*	0.18	0.00	0.18
32.45	0.36	0.89	0.40*	0.17	0.00	0.17
32.50	0.36	0.89	0.40*	0.17	0.00	0.17
32.55	0.36	0.89	0.41*	0.16	0.00	0.16
32.60	0.37	0.89	0.41*	0.16	0.00	0.16
32.65	0.37	0.89	0.42*	0.15	0.00	0.15
32.70	0.37	0.89	0.42*	0.15	0.00	0.15
32.75	0.38	0.89	0.43*	0.14	0.00	0.14
32.80	0.38	0.89	0.43*	0.13	0.00	0.13
32.85	0.39	0.89	0.44*	0.13	0.00	0.13
32.90	0.39	0.89	0.44*	0.12	0.00	0.12
32.95	0.40	0.89	0.45*	0.12	0.00	0.12
33.00	0.41	0.89	0.46*	0.11	0.00	0.11
33.05	0.42	0.89	0.47*	0.11	0.00	0.11
33.10	0.42	0.89	0.48*	0.10	0.00	0.10
33.15	0.44	0.89	0.49*	0.10	0.00	0.10
33.20	0.45	0.89	0.51*	0.09	0.00	0.09
33.25	0.48	0.89	0.54*	0.09	0.00	0.09
33.30	0.52	0.89	0.59*	0.08	0.00	0.08
33.35	0.52	0.89	0.59*	0.08	0.00	0.08
33.40	0.52	0.89	0.59*	0.08	0.00	0.08
33.45	0.52	0.89	0.59*	0.07	0.00	0.07
33.50	0.52	0.89	0.59*	0.07	0.00	0.07
33.55	0.52	0.89	0.59*	0.06	0.00	0.06
33.60	0.52	0.89	0.59*	0.06	0.00	0.06
33.65	0.52	0.89	0.59*	0.06	0.00	0.06
33.70	0.52	0.89	0.59*	0.05	0.00	0.05
33.75	0.52	0.88	0.59*	0.05	0.00	0.05
33.80	0.52	0.88	0.59*	0.05	0.00	0.05
33.85	0.52	0.88	0.59*	0.04	0.00	0.04
33.90	0.52	0.88	0.59*	0.04	0.00	0.04
33.95	0.52	0.88	0.59*	0.04	0.00	0.04
34.00	0.52	0.88	0.59*	0.03	0.00	0.03
34.05	0.52	0.88	0.59*	0.03	0.00	0.03
34.10	0.52	0.88	0.59*	0.03	0.00	0.03
34.15	0.52	0.88	0.59*	0.02	0.00	0.02
34.20	0.52	0.88	0.59*	0.02	0.00	0.02
34.25	0.52	0.88	0.59*	0.02	0.00	0.02
34.30	0.52	0.88	0.59*	0.02	0.00	0.02
34.35	0.52	0.88	0.59*	0.02	0.00	0.02
34.40	0.52	0.88	0.59*	0.01	0.00	0.01
34.45	0.52	0.88	0.59*	0.01	0.00	0.01
34.50	0.52	0.88	0.59*	0.01	0.00	0.01
34.55	0.52	0.88	0.59*	0.01	0.00	0.01
34.60	0.52	0.88	0.59*	0.01	0.00	0.01

BH-2 Liquefy.sum (Chinese)

34.65	0.52	0.88	0.59*	0.01	0.00	0.01
34.70	0.52	0.88	0.59*	0.01	0.00	0.01
34.75	0.52	0.88	0.59*	0.00	0.00	0.00
34.80	0.52	0.88	0.59*	0.00	0.00	0.00
34.85	0.52	0.88	0.59*	0.00	0.00	0.00
34.90	0.52	0.88	0.59*	0.00	0.00	0.00
34.95	0.51	0.88	0.59*	0.00	0.00	0.00
35.00	0.51	0.88	0.59*	0.00	0.00	0.00
35.05	2.00	0.88	5.00	0.00	0.00	0.00
35.10	2.00	0.88	5.00	0.00	0.00	0.00
35.15	2.00	0.88	5.00	0.00	0.00	0.00
35.20	2.00	0.88	5.00	0.00	0.00	0.00
35.25	2.00	0.88	5.00	0.00	0.00	0.00
35.30	2.00	0.88	5.00	0.00	0.00	0.00
35.35	2.00	0.88	5.00	0.00	0.00	0.00
35.40	2.00	0.88	5.00	0.00	0.00	0.00
35.45	2.00	0.88	5.00	0.00	0.00	0.00
35.50	2.00	0.88	5.00	0.00	0.00	0.00
35.55	2.00	0.88	5.00	0.00	0.00	0.00
35.60	2.00	0.88	5.00	0.00	0.00	0.00
35.65	2.00	0.87	5.00	0.00	0.00	0.00
35.70	2.00	0.87	5.00	0.00	0.00	0.00
35.75	2.00	0.87	5.00	0.00	0.00	0.00
35.80	2.00	0.87	5.00	0.00	0.00	0.00
35.85	2.00	0.87	5.00	0.00	0.00	0.00
35.90	2.00	0.87	5.00	0.00	0.00	0.00
35.95	2.00	0.87	5.00	0.00	0.00	0.00
36.00	2.00	0.87	5.00	0.00	0.00	0.00
36.05	2.00	0.87	5.00	0.00	0.00	0.00
36.10	2.00	0.87	5.00	0.00	0.00	0.00
36.15	2.00	0.87	5.00	0.00	0.00	0.00
36.20	2.00	0.87	5.00	0.00	0.00	0.00
36.25	2.00	0.87	5.00	0.00	0.00	0.00
36.30	2.00	0.87	5.00	0.00	0.00	0.00
36.35	2.00	0.87	5.00	0.00	0.00	0.00
36.40	2.00	0.87	5.00	0.00	0.00	0.00
36.45	2.00	0.87	5.00	0.00	0.00	0.00
36.50	2.00	0.87	5.00	0.00	0.00	0.00
36.55	2.00	0.87	5.00	0.00	0.00	0.00
36.60	2.00	0.87	5.00	0.00	0.00	0.00
36.65	2.00	0.87	5.00	0.00	0.00	0.00
36.70	2.00	0.87	5.00	0.00	0.00	0.00
36.75	2.00	0.87	5.00	0.00	0.00	0.00
36.80	2.00	0.87	5.00	0.00	0.00	0.00
36.85	2.00	0.87	5.00	0.00	0.00	0.00
36.90	2.00	0.87	5.00	0.00	0.00	0.00
36.95	2.00	0.87	5.00	0.00	0.00	0.00
37.00	2.00	0.87	5.00	0.00	0.00	0.00

BH-2 Liquefy.sum (Chinese)

37.05	2.00	0.87	5.00	0.00	0.00	0.00
37.10	2.00	0.87	5.00	0.00	0.00	0.00
37.15	2.00	0.87	5.00	0.00	0.00	0.00
37.20	2.00	0.87	5.00	0.00	0.00	0.00
37.25	2.00	0.87	5.00	0.00	0.00	0.00
37.30	2.00	0.87	5.00	0.00	0.00	0.00
37.35	2.00	0.87	5.00	0.00	0.00	0.00
37.40	2.00	0.86	5.00	0.00	0.00	0.00
37.45	2.00	0.86	5.00	0.00	0.00	0.00
37.50	2.00	0.86	5.00	0.00	0.00	0.00
37.55	2.00	0.86	5.00	0.00	0.00	0.00
37.60	2.00	0.86	5.00	0.00	0.00	0.00
37.65	2.00	0.86	5.00	0.00	0.00	0.00
37.70	2.00	0.86	5.00	0.00	0.00	0.00
37.75	2.00	0.86	5.00	0.00	0.00	0.00
37.80	2.00	0.86	5.00	0.00	0.00	0.00
37.85	2.00	0.86	5.00	0.00	0.00	0.00
37.90	2.00	0.86	5.00	0.00	0.00	0.00
37.95	2.00	0.86	5.00	0.00	0.00	0.00
38.00	2.00	0.86	5.00	0.00	0.00	0.00
38.05	2.00	0.86	5.00	0.00	0.00	0.00
38.10	2.00	0.86	5.00	0.00	0.00	0.00
38.15	2.00	0.86	5.00	0.00	0.00	0.00
38.20	2.00	0.86	5.00	0.00	0.00	0.00
38.25	2.00	0.86	5.00	0.00	0.00	0.00
38.30	2.00	0.86	5.00	0.00	0.00	0.00
38.35	2.00	0.86	5.00	0.00	0.00	0.00
38.40	2.00	0.86	5.00	0.00	0.00	0.00
38.45	2.00	0.86	5.00	0.00	0.00	0.00
38.50	2.00	0.86	5.00	0.00	0.00	0.00
38.55	2.00	0.86	5.00	0.00	0.00	0.00
38.60	2.00	0.86	5.00	0.00	0.00	0.00
38.65	2.00	0.86	5.00	0.00	0.00	0.00
38.70	2.00	0.86	5.00	0.00	0.00	0.00
38.75	2.00	0.86	5.00	0.00	0.00	0.00
38.80	2.00	0.86	5.00	0.00	0.00	0.00
38.85	2.00	0.86	5.00	0.00	0.00	0.00
38.90	2.00	0.86	5.00	0.00	0.00	0.00
38.95	2.00	0.86	5.00	0.00	0.00	0.00
39.00	2.00	0.86	5.00	0.00	0.00	0.00
39.05	2.00	0.85	5.00	0.00	0.00	0.00
39.10	2.00	0.85	5.00	0.00	0.00	0.00
39.15	2.00	0.85	5.00	0.00	0.00	0.00
39.20	2.00	0.85	5.00	0.00	0.00	0.00
39.25	2.00	0.85	5.00	0.00	0.00	0.00
39.30	2.00	0.85	5.00	0.00	0.00	0.00
39.35	2.00	0.85	5.00	0.00	0.00	0.00
39.40	2.00	0.85	5.00	0.00	0.00	0.00

BH-2 Liquefy.sum (Chinese)

39.45	2.00	0.85	5.00	0.00	0.00	0.00
39.50	2.00	0.85	5.00	0.00	0.00	0.00
39.55	2.00	0.85	5.00	0.00	0.00	0.00
39.60	2.00	0.85	5.00	0.00	0.00	0.00
39.65	2.00	0.85	5.00	0.00	0.00	0.00
39.70	2.00	0.85	5.00	0.00	0.00	0.00
39.75	2.00	0.85	5.00	0.00	0.00	0.00
39.80	2.00	0.85	5.00	0.00	0.00	0.00
39.85	2.00	0.85	5.00	0.00	0.00	0.00
39.90	2.00	0.85	5.00	0.00	0.00	0.00
39.95	2.00	0.85	5.00	0.00	0.00	0.00
40.00	2.00	0.85	5.00	0.00	0.00	0.00
40.05	0.50	0.85	0.59*	0.00	0.00	0.00
40.10	0.50	0.85	0.59*	0.00	0.00	0.00
40.15	0.50	0.85	0.59*	0.00	0.00	0.00
40.20	0.50	0.85	0.59*	0.00	0.00	0.00
40.25	0.50	0.85	0.59*	0.00	0.00	0.00
40.30	0.50	0.85	0.59*	0.00	0.00	0.00
40.35	0.50	0.85	0.59*	0.00	0.00	0.00
40.40	0.50	0.85	0.59*	0.00	0.00	0.00
40.45	0.50	0.85	0.59*	0.00	0.00	0.00
40.50	0.50	0.85	0.59*	0.00	0.00	0.00
40.55	0.50	0.85	0.59*	0.00	0.00	0.00
40.60	0.50	0.85	0.59*	0.00	0.00	0.00
40.65	0.50	0.84	0.59*	0.00	0.00	0.00
40.70	0.50	0.84	0.59*	0.00	0.00	0.00
40.75	0.50	0.84	0.59*	0.00	0.00	0.00
40.80	0.50	0.84	0.59*	0.00	0.00	0.00
40.85	0.50	0.84	0.59*	0.00	0.00	0.00
40.90	0.50	0.84	0.59*	0.00	0.00	0.00
40.95	0.50	0.84	0.59*	0.00	0.00	0.00
41.00	0.50	0.84	0.59*	0.00	0.00	0.00
41.05	0.50	0.84	0.59*	0.00	0.00	0.00
41.10	0.50	0.84	0.59*	0.00	0.00	0.00
41.15	0.50	0.84	0.59*	0.00	0.00	0.00
41.20	0.50	0.84	0.59*	0.00	0.00	0.00
41.25	0.50	0.84	0.59*	0.00	0.00	0.00
41.30	0.50	0.84	0.59*	0.00	0.00	0.00
41.35	0.49	0.84	0.59*	0.00	0.00	0.00
41.40	0.49	0.84	0.59*	0.00	0.00	0.00
41.45	0.49	0.84	0.59*	0.00	0.00	0.00
41.50	0.49	0.84	0.59*	0.00	0.00	0.00
41.55	0.49	0.84	0.59*	0.00	0.00	0.00
41.60	0.49	0.84	0.59*	0.00	0.00	0.00
41.65	0.49	0.84	0.59*	0.00	0.00	0.00
41.70	0.49	0.84	0.59*	0.00	0.00	0.00
41.75	0.49	0.84	0.59*	0.00	0.00	0.00
41.80	0.49	0.84	0.59*	0.00	0.00	0.00

BH-2 Liquefy.sum (Chinese)

41.85	0.49	0.84	0.59*	0.00	0.00	0.00
41.90	0.49	0.84	0.59*	0.00	0.00	0.00
41.95	0.49	0.84	0.59*	0.00	0.00	0.00
42.00	0.49	0.84	0.59*	0.00	0.00	0.00
42.05	0.49	0.84	0.59*	0.00	0.00	0.00
42.10	0.49	0.84	0.59*	0.00	0.00	0.00
42.15	0.49	0.84	0.59*	0.00	0.00	0.00
42.20	0.49	0.84	0.59*	0.00	0.00	0.00
42.25	0.49	0.84	0.59*	0.00	0.00	0.00
42.30	0.49	0.84	0.59*	0.00	0.00	0.00
42.35	0.49	0.84	0.59*	0.00	0.00	0.00
42.40	0.49	0.84	0.59*	0.00	0.00	0.00
42.45	0.49	0.83	0.59*	0.00	0.00	0.00
42.50	0.49	0.83	0.59*	0.00	0.00	0.00
42.55	0.49	0.83	0.59*	0.00	0.00	0.00
42.60	0.49	0.83	0.59*	0.00	0.00	0.00
42.65	0.49	0.83	0.59*	0.00	0.00	0.00
42.70	0.49	0.83	0.59*	0.00	0.00	0.00
42.75	0.49	0.83	0.59*	0.00	0.00	0.00
42.80	0.49	0.83	0.59*	0.00	0.00	0.00
42.85	0.49	0.83	0.59*	0.00	0.00	0.00
42.90	0.49	0.83	0.59*	0.00	0.00	0.00
42.95	0.49	0.83	0.59*	0.00	0.00	0.00
43.00	0.49	0.83	0.59*	0.00	0.00	0.00
43.05	0.49	0.83	0.59*	0.00	0.00	0.00
43.10	0.49	0.83	0.59*	0.00	0.00	0.00
43.15	0.49	0.83	0.59*	0.00	0.00	0.00
43.20	0.49	0.83	0.59*	0.00	0.00	0.00
43.25	0.49	0.83	0.59*	0.00	0.00	0.00
43.30	0.49	0.83	0.59*	0.00	0.00	0.00
43.35	0.49	0.83	0.59*	0.00	0.00	0.00
43.40	0.49	0.83	0.59*	0.00	0.00	0.00
43.45	0.49	0.83	0.59*	0.00	0.00	0.00
43.50	0.49	0.83	0.59*	0.00	0.00	0.00
43.55	0.49	0.83	0.59*	0.00	0.00	0.00
43.60	0.49	0.83	0.59*	0.00	0.00	0.00
43.65	0.49	0.83	0.59*	0.00	0.00	0.00
43.70	0.49	0.83	0.59*	0.00	0.00	0.00
43.75	0.49	0.83	0.59*	0.00	0.00	0.00
43.80	0.49	0.83	0.59*	0.00	0.00	0.00
43.85	0.49	0.83	0.59*	0.00	0.00	0.00
43.90	0.49	0.83	0.59*	0.00	0.00	0.00
43.95	0.49	0.83	0.59*	0.00	0.00	0.00
44.00	0.49	0.83	0.59*	0.00	0.00	0.00
44.05	0.49	0.83	0.59*	0.00	0.00	0.00
44.10	0.49	0.83	0.59*	0.00	0.00	0.00
44.15	0.49	0.83	0.59*	0.00	0.00	0.00
44.20	0.49	0.83	0.59*	0.00	0.00	0.00

BH-2 Liquefy.sum (Chinese)

44.25	0.49	0.83	0.59*	0.00	0.00	0.00
44.30	0.49	0.83	0.59*	0.00	0.00	0.00
44.35	0.49	0.83	0.59*	0.00	0.00	0.00
44.40	0.49	0.83	0.59*	0.00	0.00	0.00
44.45	0.49	0.83	0.59*	0.00	0.00	0.00
44.50	0.49	0.83	0.59*	0.00	0.00	0.00
44.55	0.49	0.82	0.59*	0.00	0.00	0.00
44.60	0.49	0.82	0.59*	0.00	0.00	0.00
44.65	0.49	0.82	0.59*	0.00	0.00	0.00
44.70	0.49	0.82	0.59*	0.00	0.00	0.00
44.75	0.49	0.82	0.59*	0.00	0.00	0.00
44.80	0.49	0.82	0.59*	0.00	0.00	0.00
44.85	0.49	0.82	0.59*	0.00	0.00	0.00
44.90	0.49	0.82	0.59*	0.00	0.00	0.00
44.95	0.49	0.82	0.59*	0.00	0.00	0.00
45.00	0.49	0.82	0.59*	0.00	0.00	0.00
45.05	0.49	0.82	0.59*	0.00	0.00	0.00
45.10	0.49	0.82	0.59*	0.00	0.00	0.00
45.15	0.49	0.82	0.59*	0.00	0.00	0.00
45.20	0.49	0.82	0.59*	0.00	0.00	0.00
45.25	0.49	0.82	0.59*	0.00	0.00	0.00
45.30	0.48	0.82	0.59*	0.00	0.00	0.00
45.35	0.48	0.82	0.59*	0.00	0.00	0.00
45.40	0.48	0.82	0.59*	0.00	0.00	0.00
45.45	0.48	0.82	0.59*	0.00	0.00	0.00
45.50	0.48	0.82	0.59*	0.00	0.00	0.00
45.55	0.48	0.82	0.59*	0.00	0.00	0.00
45.60	0.48	0.82	0.59*	0.00	0.00	0.00
45.65	0.48	0.82	0.59*	0.00	0.00	0.00
45.70	0.48	0.82	0.59*	0.00	0.00	0.00
45.75	0.48	0.82	0.59*	0.00	0.00	0.00
45.80	0.48	0.82	0.59*	0.00	0.00	0.00
45.85	0.48	0.82	0.59*	0.00	0.00	0.00
45.90	0.48	0.82	0.59*	0.00	0.00	0.00
45.95	0.48	0.82	0.59*	0.00	0.00	0.00
46.00	0.48	0.82	0.59*	0.00	0.00	0.00
46.05	0.48	0.82	0.59*	0.00	0.00	0.00
46.10	0.48	0.82	0.59*	0.00	0.00	0.00
46.15	0.48	0.82	0.59*	0.00	0.00	0.00
46.20	0.48	0.82	0.59*	0.00	0.00	0.00
46.25	0.48	0.82	0.59*	0.00	0.00	0.00
46.30	0.48	0.82	0.59*	0.00	0.00	0.00
46.35	0.48	0.82	0.59*	0.00	0.00	0.00
46.40	0.48	0.82	0.59*	0.00	0.00	0.00
46.45	0.48	0.82	0.59*	0.00	0.00	0.00
46.50	0.48	0.82	0.59*	0.00	0.00	0.00
46.55	0.48	0.82	0.59*	0.00	0.00	0.00
46.60	0.48	0.82	0.59*	0.00	0.00	0.00

BH-2 Liquefy.sum (Chinese)

46.65	0.48	0.82	0.59*	0.00	0.00	0.00
46.70	0.48	0.82	0.59*	0.00	0.00	0.00
46.75	0.48	0.82	0.59*	0.00	0.00	0.00
46.80	0.48	0.81	0.59*	0.00	0.00	0.00
46.85	0.48	0.81	0.59*	0.00	0.00	0.00
46.90	0.48	0.81	0.59*	0.00	0.00	0.00
46.95	0.48	0.81	0.59*	0.00	0.00	0.00
47.00	0.48	0.81	0.59*	0.00	0.00	0.00
47.05	0.48	0.81	0.59*	0.00	0.00	0.00
47.10	0.48	0.81	0.59*	0.00	0.00	0.00
47.15	0.48	0.81	0.59*	0.00	0.00	0.00
47.20	0.48	0.81	0.59*	0.00	0.00	0.00
47.25	0.48	0.81	0.59*	0.00	0.00	0.00
47.30	0.48	0.81	0.59*	0.00	0.00	0.00
47.35	0.48	0.81	0.59*	0.00	0.00	0.00
47.40	0.48	0.81	0.59*	0.00	0.00	0.00
47.45	0.48	0.81	0.59*	0.00	0.00	0.00
47.50	0.48	0.81	0.59*	0.00	0.00	0.00
47.55	0.48	0.81	0.59*	0.00	0.00	0.00
47.60	0.48	0.81	0.59*	0.00	0.00	0.00
47.65	0.48	0.81	0.59*	0.00	0.00	0.00
47.70	0.48	0.81	0.59*	0.00	0.00	0.00
47.75	0.48	0.81	0.59*	0.00	0.00	0.00
47.80	0.48	0.81	0.59*	0.00	0.00	0.00
47.85	0.48	0.81	0.59*	0.00	0.00	0.00
47.90	0.48	0.81	0.59*	0.00	0.00	0.00
47.95	0.48	0.81	0.59*	0.00	0.00	0.00
48.00	0.48	0.81	0.59*	0.00	0.00	0.00
48.05	0.48	0.81	0.59*	0.00	0.00	0.00
48.10	0.48	0.81	0.59*	0.00	0.00	0.00
48.15	0.48	0.81	0.59*	0.00	0.00	0.00
48.20	0.48	0.81	0.59*	0.00	0.00	0.00
48.25	0.48	0.81	0.59*	0.00	0.00	0.00
48.30	0.48	0.81	0.59*	0.00	0.00	0.00
48.35	0.48	0.81	0.59*	0.00	0.00	0.00
48.40	0.48	0.81	0.59*	0.00	0.00	0.00
48.45	0.48	0.81	0.59*	0.00	0.00	0.00
48.50	0.48	0.81	0.59*	0.00	0.00	0.00
48.55	0.48	0.81	0.59*	0.00	0.00	0.00
48.60	0.48	0.81	0.59*	0.00	0.00	0.00
48.65	0.48	0.81	0.59*	0.00	0.00	0.00
48.70	0.48	0.81	0.59*	0.00	0.00	0.00
48.75	0.48	0.81	0.59*	0.00	0.00	0.00
48.80	0.48	0.81	0.59*	0.00	0.00	0.00
48.85	0.48	0.81	0.59*	0.00	0.00	0.00
48.90	0.48	0.80	0.59*	0.00	0.00	0.00
48.95	0.48	0.80	0.59*	0.00	0.00	0.00
49.00	0.48	0.80	0.59*	0.00	0.00	0.00

BH-2 Liquefy.sum (Chinese)

49.05	0.48	0.80	0.59*	0.00	0.00	0.00
49.10	0.48	0.80	0.59*	0.00	0.00	0.00
49.15	0.48	0.80	0.59*	0.00	0.00	0.00
49.20	0.48	0.80	0.59*	0.00	0.00	0.00
49.25	0.48	0.80	0.59*	0.00	0.00	0.00
49.30	0.48	0.80	0.59*	0.00	0.00	0.00
49.35	0.48	0.80	0.59*	0.00	0.00	0.00
49.40	0.48	0.80	0.59*	0.00	0.00	0.00
49.45	0.48	0.80	0.59*	0.00	0.00	0.00
49.50	0.48	0.80	0.59*	0.00	0.00	0.00
49.55	0.48	0.80	0.59*	0.00	0.00	0.00
49.60	0.48	0.80	0.59*	0.00	0.00	0.00
49.65	0.48	0.80	0.59*	0.00	0.00	0.00
49.70	0.48	0.80	0.59*	0.00	0.00	0.00
49.75	0.48	0.80	0.59*	0.00	0.00	0.00
49.80	0.47	0.80	0.59*	0.00	0.00	0.00
49.85	0.47	0.80	0.59*	0.00	0.00	0.00
49.90	0.47	0.80	0.59*	0.00	0.00	0.00
49.95	0.47	0.80	0.59*	0.00	0.00	0.00
50.00	0.47	0.80	0.59*	0.00	0.00	0.00
50.05	0.47	0.80	0.59*	0.00	0.00	0.00
50.10	0.47	0.80	0.59*	0.00	0.00	0.00
50.15	0.47	0.80	0.59*	0.00	0.00	0.00
50.20	0.47	0.80	0.59*	0.00	0.00	0.00
50.25	0.47	0.80	0.59*	0.00	0.00	0.00
50.30	0.47	0.80	0.59*	0.00	0.00	0.00
50.35	0.47	0.80	0.59*	0.00	0.00	0.00
50.40	0.47	0.80	0.59*	0.00	0.00	0.00
50.45	0.47	0.80	0.59*	0.00	0.00	0.00
50.50	0.47	0.80	0.59*	0.00	0.00	0.00
50.55	0.47	0.80	0.59*	0.00	0.00	0.00
50.60	0.47	0.80	0.59*	0.00	0.00	0.00
50.65	0.47	0.80	0.59*	0.00	0.00	0.00
50.70	0.47	0.80	0.59*	0.00	0.00	0.00
50.75	0.47	0.80	0.59*	0.00	0.00	0.00
50.80	0.47	0.80	0.59*	0.00	0.00	0.00
50.85	0.47	0.79	0.59*	0.00	0.00	0.00
50.90	0.47	0.79	0.59*	0.00	0.00	0.00
50.95	0.47	0.79	0.59*	0.00	0.00	0.00
51.00	0.47	0.79	0.60*	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone

(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

BH-2 Liquefy.sum (Chinese)

1 atm (atmosphere) = 1 tsf (ton/ft²)

CRRm Cyclic resistance ratio from soils

request CSRsf Cyclic stress ratio induced by a given earthquake (with user factor of safety)

F.S. Factor of Safety against liquefaction, $F.S. = CRRm / CSRsf$

S_sat Settlement from saturated sands

S_dry Settlement from Unsaturated Sands

S_all Total Settlement from Saturated and Unsaturated Sands

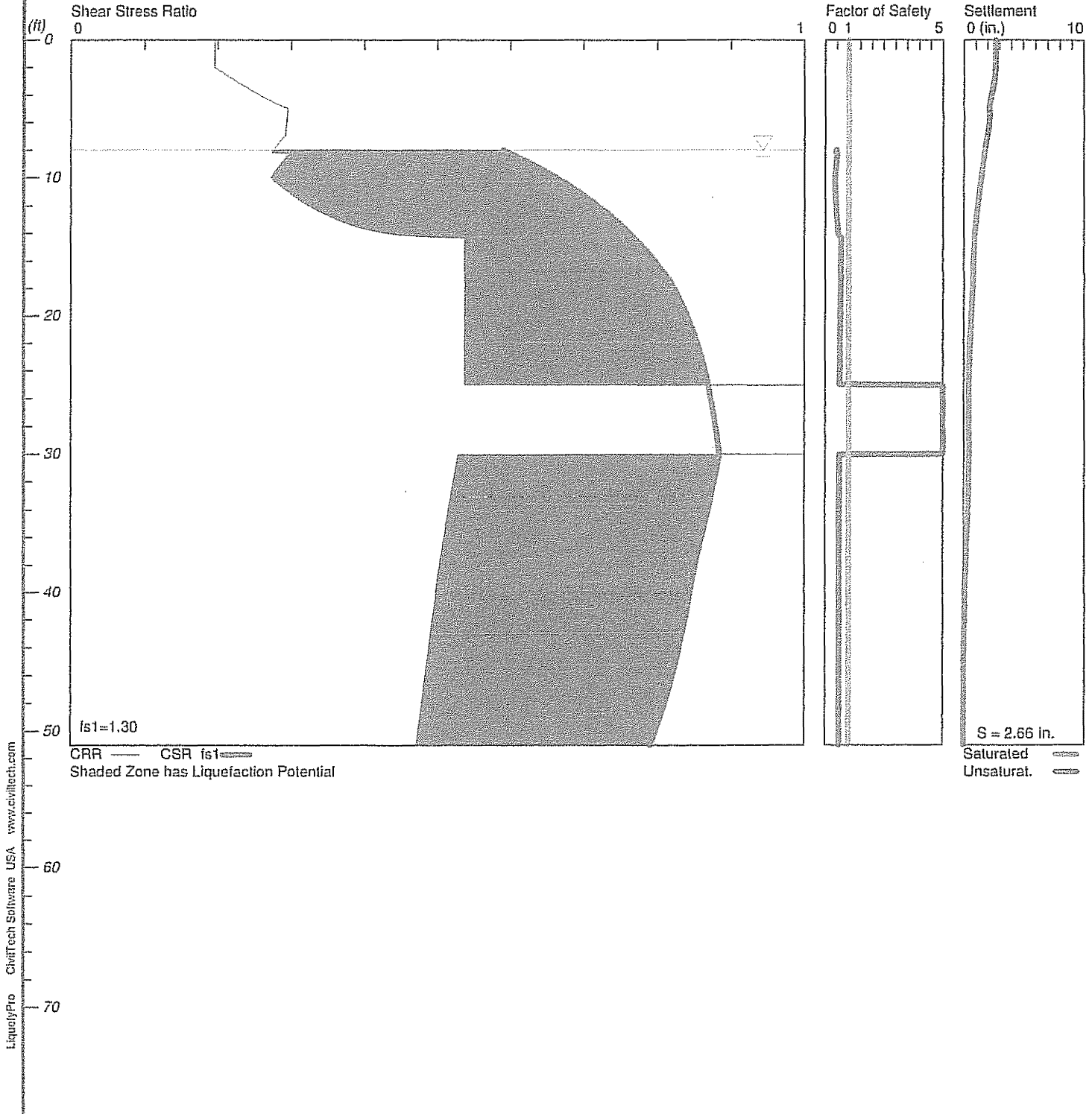
NoLiq No-Liquefy Soils

LIQUEFACTION ANALYSIS

14820 & 14830 Carmenita Rd., Norwalk

Hole No.=BH-5 Water Depth=8 ft Surface Elev.=77

Magnitude=7.29
Acceleration=0.711g



BH-5 Liquefy.sum (Chinese)

LIQUEFACTION ANALYSIS SUMMARY

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Input File Name: G:\Liquefy5\444-19057 Carmenita BH-5.liq
Title: 14820 & 14830 Carmenita Rd., Norwalk
Subtitle: 444-19057

Surface Elev.=77
Hole No.=BH-5
Depth of Hole= 51.00 ft
Water Table during Earthquake= 8.00 ft
Water Table during In-Situ Testing= 52.00 ft
Max. Acceleration= 0.71 g
Earthquake Magnitude= 7.29

Input Data:

Surface Elev.=77
Hole No.=BH-5
Depth of Hole=51.00 ft
Water Table during Earthquake= 8.00 ft
Water Table during In-Situ Testing= 52.00 ft
Max. Acceleration=0.71 g
Earthquake Magnitude=7.29
No-Liquefiable Soils: Based on Analysis

1. SPT or BPT Calculation.
 2. Settlement Analysis Method: Tokimatsu, M-correction
 3. Fines Correction for Liquefaction: Modify Stark/Olson
 4. Fine Correction for Settlement: During Liquefaction*
 5. Settlement Calculation in: All zones*
 6. Hammer Energy Ratio, Ce = 1.25
 7. Borehole Diameter, Cb= 1
 8. Sampling Method, Cs= 1
 9. User request factor of safety (apply to CSR) , User= 1.3
Plot one CSR curve (fs1=User)
 10. Use Curve Smoothing: Yes*
- * Recommended Options

BH-5 Liquefy.sum (Chinese)

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.00	8.66	104.50	18.00
2.00	8.66	104.50	18.00
5.00	7.00	104.50	60.50
10.00	8.66	121.90	47.40
15.00	7.00	121.90	NoLiq
20.00	21.33	138.40	38.90
25.00	11.00	138.40	NoLiq
30.00	14.00	136.60	NoLiq
35.00	32.00	136.60	23.90
40.00	41.33	113.70	3.00
45.00	46.00	113.70	9.30
50.00	47.33	127.70	39.70

Output Results:

Settlement of Saturated Sands=1.77 in.

Settlement of Unsaturated Sands=0.89 in.

Total Settlement of Saturated and Unsaturated Sands=2.66 in.

Differential Settlement=1.331 to 1.757 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	0.20	0.60	5.00	1.77	0.89	2.66
0.05	0.20	0.60	5.00	1.77	0.89	2.66
0.10	0.20	0.60	5.00	1.77	0.89	2.66
0.15	0.20	0.60	5.00	1.77	0.89	2.66
0.20	0.20	0.60	5.00	1.77	0.89	2.66
0.25	0.20	0.60	5.00	1.77	0.89	2.66
0.30	0.20	0.60	5.00	1.77	0.89	2.66
0.35	0.20	0.60	5.00	1.77	0.89	2.66
0.40	0.20	0.60	5.00	1.77	0.89	2.66
0.45	0.20	0.60	5.00	1.77	0.89	2.66
0.50	0.20	0.60	5.00	1.77	0.89	2.66
0.55	0.20	0.60	5.00	1.77	0.89	2.66
0.60	0.20	0.60	5.00	1.77	0.89	2.66
0.65	0.20	0.60	5.00	1.77	0.89	2.66
0.70	0.20	0.60	5.00	1.77	0.89	2.66
0.75	0.20	0.60	5.00	1.77	0.89	2.66
0.80	0.20	0.60	5.00	1.77	0.89	2.66
0.85	0.20	0.60	5.00	1.77	0.89	2.66
0.90	0.20	0.60	5.00	1.77	0.88	2.66
0.95	0.20	0.60	5.00	1.77	0.88	2.66
1.00	0.20	0.60	5.00	1.77	0.88	2.66

BH-5 Liquefy.sum (Chinese)

1.05	0.20	0.60	5.00	1.77	0.88	2.66
1.10	0.20	0.60	5.00	1.77	0.88	2.66
1.15	0.20	0.60	5.00	1.77	0.88	2.66
1.20	0.20	0.60	5.00	1.77	0.88	2.66
1.25	0.20	0.60	5.00	1.77	0.88	2.66
1.30	0.20	0.60	5.00	1.77	0.88	2.66
1.35	0.20	0.60	5.00	1.77	0.88	2.65
1.40	0.20	0.60	5.00	1.77	0.88	2.65
1.45	0.20	0.60	5.00	1.77	0.88	2.65
1.50	0.20	0.60	5.00	1.77	0.88	2.65
1.55	0.20	0.60	5.00	1.77	0.88	2.65
1.60	0.20	0.60	5.00	1.77	0.88	2.65
1.65	0.20	0.60	5.00	1.77	0.88	2.65
1.70	0.20	0.60	5.00	1.77	0.88	2.65
1.75	0.20	0.60	5.00	1.77	0.88	2.65
1.80	0.20	0.60	5.00	1.77	0.88	2.65
1.85	0.20	0.60	5.00	1.77	0.87	2.65
1.90	0.20	0.60	5.00	1.77	0.87	2.65
1.95	0.20	0.60	5.00	1.77	0.87	2.65
2.00	0.20	0.60	5.00	1.77	0.87	2.64
2.05	0.20	0.60	5.00	1.77	0.87	2.64
2.10	0.20	0.60	5.00	1.77	0.87	2.64
2.15	0.20	0.60	5.00	1.77	0.87	2.64
2.20	0.20	0.60	5.00	1.77	0.87	2.64
2.25	0.20	0.60	5.00	1.77	0.86	2.64
2.30	0.21	0.60	5.00	1.77	0.86	2.63
2.35	0.21	0.60	5.00	1.77	0.86	2.63
2.40	0.21	0.60	5.00	1.77	0.86	2.63
2.45	0.21	0.60	5.00	1.77	0.85	2.63
2.50	0.21	0.60	5.00	1.77	0.85	2.62
2.55	0.21	0.60	5.00	1.77	0.85	2.62
2.60	0.21	0.60	5.00	1.77	0.84	2.62
2.65	0.22	0.60	5.00	1.77	0.84	2.61
2.70	0.22	0.60	5.00	1.77	0.83	2.61
2.75	0.22	0.60	5.00	1.77	0.83	2.60
2.80	0.22	0.60	5.00	1.77	0.82	2.59
2.85	0.22	0.60	5.00	1.77	0.81	2.59
2.90	0.22	0.60	5.00	1.77	0.80	2.58
2.95	0.22	0.60	5.00	1.77	0.79	2.57
3.00	0.23	0.60	5.00	1.77	0.78	2.56
3.05	0.23	0.60	5.00	1.77	0.77	2.54
3.10	0.23	0.60	5.00	1.77	0.76	2.53
3.15	0.23	0.60	5.00	1.77	0.75	2.52
3.20	0.23	0.60	5.00	1.77	0.73	2.51
3.25	0.23	0.60	5.00	1.77	0.72	2.50
3.30	0.23	0.60	5.00	1.77	0.71	2.48
3.35	0.24	0.60	5.00	1.77	0.70	2.47
3.40	0.24	0.60	5.00	1.77	0.69	2.46

BH-5 Liquefy.sum (Chinese)

3.45	0.24	0.60	5.00	1.77	0.68	2.45
3.50	0.24	0.60	5.00	1.77	0.66	2.44
3.55	0.24	0.60	5.00	1.77	0.65	2.43
3.60	0.24	0.60	5.00	1.77	0.64	2.41
3.65	0.25	0.60	5.00	1.77	0.63	2.40
3.70	0.25	0.60	5.00	1.77	0.62	2.39
3.75	0.25	0.60	5.00	1.77	0.61	2.38
3.80	0.25	0.60	5.00	1.77	0.60	2.37
3.85	0.25	0.60	5.00	1.77	0.59	2.36
3.90	0.25	0.60	5.00	1.77	0.58	2.35
3.95	0.26	0.60	5.00	1.77	0.56	2.34
4.00	0.26	0.60	5.00	1.77	0.55	2.33
4.05	0.26	0.60	5.00	1.77	0.54	2.32
4.10	0.26	0.60	5.00	1.77	0.53	2.31
4.15	0.26	0.59	5.00	1.77	0.52	2.30
4.20	0.26	0.59	5.00	1.77	0.51	2.29
4.25	0.27	0.59	5.00	1.77	0.50	2.28
4.30	0.27	0.59	5.00	1.77	0.49	2.27
4.35	0.27	0.59	5.00	1.77	0.48	2.26
4.40	0.27	0.59	5.00	1.77	0.47	2.25
4.45	0.27	0.59	5.00	1.77	0.46	2.24
4.50	0.28	0.59	5.00	1.77	0.45	2.23
4.55	0.28	0.59	5.00	1.77	0.44	2.22
4.60	0.28	0.59	5.00	1.77	0.43	2.21
4.65	0.28	0.59	5.00	1.77	0.42	2.20
4.70	0.28	0.59	5.00	1.77	0.41	2.19
4.75	0.28	0.59	5.00	1.77	0.41	2.19
4.80	0.29	0.59	5.00	1.77	0.41	2.18
4.85	0.29	0.59	5.00	1.77	0.41	2.18
4.90	0.29	0.59	5.00	1.77	0.41	2.18
4.95	0.29	0.59	5.00	1.77	0.41	2.18
5.00	0.29	0.59	5.00	1.77	0.40	2.18
5.05	0.29	0.59	5.00	1.77	0.40	2.18
5.10	0.29	0.59	5.00	1.77	0.40	2.17
5.15	0.29	0.59	5.00	1.77	0.40	2.17
5.20	0.29	0.59	5.00	1.77	0.40	2.17
5.25	0.29	0.59	5.00	1.77	0.39	2.17
5.30	0.29	0.59	5.00	1.77	0.39	2.17
5.35	0.29	0.59	5.00	1.77	0.39	2.16
5.40	0.29	0.59	5.00	1.77	0.39	2.16
5.45	0.29	0.59	5.00	1.77	0.39	2.16
5.50	0.29	0.59	5.00	1.77	0.38	2.16
5.55	0.29	0.59	5.00	1.77	0.38	2.15
5.60	0.29	0.59	5.00	1.77	0.38	2.15
5.65	0.29	0.59	5.00	1.77	0.37	2.15
5.70	0.29	0.59	5.00	1.77	0.37	2.14
5.75	0.29	0.59	5.00	1.77	0.37	2.14
5.80	0.29	0.59	5.00	1.77	0.36	2.14

BH-5 Liquefy.sum (Chinese)

5.85	0.29	0.59	5.00	1.77	0.36	2.13
5.90	0.29	0.59	5.00	1.77	0.36	2.13
5.95	0.29	0.59	5.00	1.77	0.35	2.13
6.00	0.29	0.59	5.00	1.77	0.35	2.12
6.05	0.29	0.59	5.00	1.77	0.34	2.12
6.10	0.29	0.59	5.00	1.77	0.34	2.11
6.15	0.29	0.59	5.00	1.77	0.33	2.11
6.20	0.29	0.59	5.00	1.77	0.33	2.10
6.25	0.29	0.59	5.00	1.77	0.32	2.09
6.30	0.29	0.59	5.00	1.77	0.31	2.09
6.35	0.29	0.59	5.00	1.77	0.31	2.08
6.40	0.29	0.59	5.00	1.77	0.30	2.07
6.45	0.29	0.59	5.00	1.77	0.29	2.06
6.50	0.29	0.59	5.00	1.77	0.28	2.06
6.55	0.29	0.59	5.00	1.77	0.27	2.05
6.60	0.29	0.59	5.00	1.77	0.26	2.04
6.65	0.29	0.59	5.00	1.77	0.25	2.03
6.70	0.29	0.59	5.00	1.77	0.25	2.02
6.75	0.29	0.59	5.00	1.77	0.24	2.01
6.80	0.29	0.59	5.00	1.77	0.23	2.00
6.85	0.29	0.59	5.00	1.77	0.22	1.99
6.90	0.29	0.59	5.00	1.77	0.21	1.98
6.95	0.29	0.59	5.00	1.77	0.20	1.97
7.00	0.29	0.59	5.00	1.77	0.19	1.96
7.05	0.29	0.59	5.00	1.77	0.18	1.95
7.10	0.29	0.59	5.00	1.77	0.17	1.95
7.15	0.29	0.59	5.00	1.77	0.16	1.94
7.20	0.29	0.59	5.00	1.77	0.15	1.93
7.25	0.29	0.59	5.00	1.77	0.14	1.92
7.30	0.29	0.59	5.00	1.77	0.13	1.91
7.35	0.29	0.59	5.00	1.77	0.12	1.90
7.40	0.28	0.59	5.00	1.77	0.12	1.89
7.45	0.28	0.59	5.00	1.77	0.11	1.88
7.50	0.28	0.59	5.00	1.77	0.10	1.87
7.55	0.28	0.59	5.00	1.77	0.09	1.86
7.60	0.28	0.59	5.00	1.77	0.08	1.85
7.65	0.28	0.59	5.00	1.77	0.07	1.84
7.70	0.28	0.59	5.00	1.77	0.06	1.83
7.75	0.28	0.59	5.00	1.77	0.05	1.82
7.80	0.28	0.59	5.00	1.77	0.04	1.81
7.85	0.28	0.59	5.00	1.77	0.03	1.80
7.90	0.28	0.59	5.00	1.77	0.02	1.79
7.95	0.28	0.59	5.00	1.77	0.01	1.78
8.00	0.28	0.59	0.47*	1.77	0.00	1.77
8.05	0.28	0.59	0.47*	1.77	0.00	1.77
8.10	0.27	0.59	0.46*	1.76	0.00	1.76
8.15	0.27	0.60	0.46*	1.75	0.00	1.75
8.20	0.27	0.60	0.46*	1.74	0.00	1.74

BH-5 Liquefy.sum (Chinese)

8.25	0.30	0.60	0.49*	1.73	0.00	1.73
8.30	0.30	0.60	0.49*	1.73	0.00	1.73
8.35	0.30	0.60	0.49*	1.72	0.00	1.72
8.40	0.29	0.61	0.49*	1.71	0.00	1.71
8.45	0.29	0.61	0.48*	1.71	0.00	1.71
8.50	0.29	0.61	0.48*	1.70	0.00	1.70
8.55	0.29	0.61	0.48*	1.69	0.00	1.69
8.60	0.29	0.61	0.47*	1.68	0.00	1.68
8.65	0.29	0.62	0.47*	1.68	0.00	1.68
8.70	0.29	0.62	0.47*	1.67	0.00	1.67
8.75	0.29	0.62	0.47*	1.66	0.00	1.66
8.80	0.29	0.62	0.46*	1.65	0.00	1.65
8.85	0.29	0.62	0.46*	1.65	0.00	1.65
8.90	0.29	0.63	0.46*	1.64	0.00	1.64
8.95	0.29	0.63	0.46*	1.63	0.00	1.63
9.00	0.29	0.63	0.45*	1.62	0.00	1.62
9.05	0.28	0.63	0.45*	1.62	0.00	1.62
9.10	0.28	0.63	0.45*	1.61	0.00	1.61
9.15	0.28	0.63	0.45*	1.60	0.00	1.60
9.20	0.28	0.64	0.44*	1.59	0.00	1.59
9.25	0.28	0.64	0.44*	1.59	0.00	1.59
9.30	0.28	0.64	0.44*	1.58	0.00	1.58
9.35	0.28	0.64	0.44*	1.57	0.00	1.57
9.40	0.28	0.64	0.44*	1.56	0.00	1.56
9.45	0.28	0.64	0.43*	1.55	0.00	1.55
9.50	0.28	0.65	0.43*	1.55	0.00	1.55
9.55	0.28	0.65	0.43*	1.54	0.00	1.54
9.60	0.28	0.65	0.43*	1.53	0.00	1.53
9.65	0.28	0.65	0.42*	1.52	0.00	1.52
9.70	0.28	0.65	0.42*	1.52	0.00	1.52
9.75	0.28	0.65	0.42*	1.51	0.00	1.51
9.80	0.27	0.66	0.42*	1.50	0.00	1.50
9.85	0.27	0.66	0.42*	1.49	0.00	1.49
9.90	0.27	0.66	0.41*	1.48	0.00	1.48
9.95	0.27	0.66	0.41*	1.48	0.00	1.48
10.00	0.27	0.66	0.41*	1.47	0.00	1.47
10.05	0.27	0.66	0.41*	1.46	0.00	1.46
10.10	0.27	0.67	0.41*	1.45	0.00	1.45
10.15	0.28	0.67	0.41*	1.45	0.00	1.45
10.20	0.28	0.67	0.41*	1.44	0.00	1.44
10.25	0.28	0.67	0.41*	1.43	0.00	1.43
10.30	0.28	0.67	0.41*	1.42	0.00	1.42
10.35	0.28	0.67	0.41*	1.41	0.00	1.41
10.40	0.28	0.68	0.42*	1.41	0.00	1.41
10.45	0.28	0.68	0.42*	1.40	0.00	1.40
10.50	0.28	0.68	0.42*	1.39	0.00	1.39
10.55	0.28	0.68	0.42*	1.38	0.00	1.38
10.60	0.28	0.68	0.42*	1.38	0.00	1.38

BH-5 Liquefy.sum (Chinese)

10.65	0.29	0.68	0.42*	1.37	0.00	1.37
10.70	0.29	0.68	0.42*	1.36	0.00	1.36
10.75	0.29	0.69	0.42*	1.35	0.00	1.35
10.80	0.29	0.69	0.42*	1.35	0.00	1.35
10.85	0.29	0.69	0.42*	1.34	0.00	1.34
10.90	0.29	0.69	0.42*	1.33	0.00	1.33
10.95	0.29	0.69	0.42*	1.32	0.00	1.32
11.00	0.29	0.69	0.43*	1.32	0.00	1.32
11.05	0.30	0.69	0.43*	1.31	0.00	1.31
11.10	0.30	0.70	0.43*	1.30	0.00	1.30
11.15	0.30	0.70	0.43*	1.29	0.00	1.29
11.20	0.30	0.70	0.43*	1.29	0.00	1.29
11.25	0.30	0.70	0.43*	1.28	0.00	1.28
11.30	0.30	0.70	0.43*	1.27	0.00	1.27
11.35	0.30	0.70	0.43*	1.27	0.00	1.27
11.40	0.31	0.70	0.43*	1.26	0.00	1.26
11.45	0.31	0.70	0.43*	1.25	0.00	1.25
11.50	0.31	0.71	0.44*	1.24	0.00	1.24
11.55	0.31	0.71	0.44*	1.24	0.00	1.24
11.60	0.31	0.71	0.44*	1.23	0.00	1.23
11.65	0.31	0.71	0.44*	1.22	0.00	1.22
11.70	0.31	0.71	0.44*	1.22	0.00	1.22
11.75	0.32	0.71	0.44*	1.21	0.00	1.21
11.80	0.32	0.71	0.44*	1.20	0.00	1.20
11.85	0.32	0.71	0.45*	1.20	0.00	1.20
11.90	0.32	0.72	0.45*	1.19	0.00	1.19
11.95	0.32	0.72	0.45*	1.18	0.00	1.18
12.00	0.32	0.72	0.45*	1.17	0.00	1.17
12.05	0.32	0.72	0.45*	1.17	0.00	1.17
12.10	0.33	0.72	0.45*	1.16	0.00	1.16
12.15	0.33	0.72	0.45*	1.15	0.00	1.15
12.20	0.33	0.72	0.46*	1.15	0.00	1.15
12.25	0.33	0.72	0.46*	1.14	0.00	1.14
12.30	0.33	0.73	0.46*	1.13	0.00	1.13
12.35	0.33	0.73	0.46*	1.13	0.00	1.13
12.40	0.34	0.73	0.46*	1.12	0.00	1.12
12.45	0.34	0.73	0.46*	1.12	0.00	1.12
12.50	0.34	0.73	0.47*	1.11	0.00	1.11
12.55	0.34	0.73	0.47*	1.10	0.00	1.10
12.60	0.34	0.73	0.47*	1.10	0.00	1.10
12.65	0.35	0.73	0.47*	1.09	0.00	1.09
12.70	0.35	0.74	0.47*	1.08	0.00	1.08
12.75	0.35	0.74	0.48*	1.08	0.00	1.08
12.80	0.35	0.74	0.48*	1.07	0.00	1.07
12.85	0.35	0.74	0.48*	1.06	0.00	1.06
12.90	0.36	0.74	0.48*	1.06	0.00	1.06
12.95	0.36	0.74	0.48*	1.05	0.00	1.05
13.00	0.36	0.74	0.49*	1.05	0.00	1.05

BH-5 Liquefy.sum (Chinese)

13.05	0.36	0.74	0.49*	1.04	0.00	1.04
13.10	0.37	0.74	0.49*	1.03	0.00	1.03
13.15	0.37	0.75	0.49*	1.03	0.00	1.03
13.20	0.37	0.75	0.50*	1.02	0.00	1.02
13.25	0.37	0.75	0.50*	1.02	0.00	1.02
13.30	0.38	0.75	0.50*	1.01	0.00	1.01
13.35	0.38	0.75	0.51*	1.00	0.00	1.00
13.40	0.38	0.75	0.51*	1.00	0.00	1.00
13.45	0.38	0.75	0.51*	0.99	0.00	0.99
13.50	0.39	0.75	0.51*	0.99	0.00	0.99
13.55	0.39	0.75	0.52*	0.98	0.00	0.98
13.60	0.39	0.75	0.52*	0.98	0.00	0.98
13.65	0.40	0.76	0.53*	0.97	0.00	0.97
13.70	0.40	0.76	0.53*	0.96	0.00	0.96
13.75	0.40	0.76	0.53*	0.96	0.00	0.96
13.80	0.41	0.76	0.54*	0.95	0.00	0.95
13.85	0.41	0.76	0.54*	0.95	0.00	0.95
13.90	0.42	0.76	0.55*	0.94	0.00	0.94
13.95	0.42	0.76	0.56*	0.94	0.00	0.94
14.00	0.43	0.76	0.56*	0.93	0.00	0.93
14.05	0.44	0.76	0.57*	0.93	0.00	0.93
14.10	0.44	0.76	0.58*	0.92	0.00	0.92
14.15	0.45	0.77	0.59*	0.92	0.00	0.92
14.20	0.47	0.77	0.61*	0.92	0.00	0.92
14.25	0.48	0.77	0.63*	0.91	0.00	0.91
14.30	0.50	0.77	0.66*	0.91	0.00	0.91
14.35	0.54	0.77	0.70*	0.90	0.00	0.90
14.40	0.54	0.77	0.70*	0.90	0.00	0.90
14.45	0.54	0.77	0.70*	0.89	0.00	0.89
14.50	0.54	0.77	0.70*	0.89	0.00	0.89
14.55	0.54	0.77	0.70*	0.88	0.00	0.88
14.60	0.54	0.77	0.69*	0.88	0.00	0.88
14.65	0.54	0.77	0.69*	0.88	0.00	0.88
14.70	0.54	0.78	0.69*	0.87	0.00	0.87
14.75	0.54	0.78	0.69*	0.87	0.00	0.87
14.80	0.54	0.78	0.69*	0.86	0.00	0.86
14.85	0.54	0.78	0.69*	0.86	0.00	0.86
14.90	0.54	0.78	0.69*	0.86	0.00	0.86
14.95	0.54	0.78	0.69*	0.86	0.00	0.86
15.00	0.54	0.78	0.69*	0.86	0.00	0.86
15.05	0.54	0.78	0.69*	0.86	0.00	0.86
15.10	0.54	0.78	0.69*	0.86	0.00	0.86
15.15	0.54	0.78	0.69*	0.85	0.00	0.85
15.20	0.54	0.78	0.69*	0.85	0.00	0.85
15.25	0.54	0.78	0.68*	0.85	0.00	0.85
15.30	0.54	0.79	0.68*	0.85	0.00	0.85
15.35	0.54	0.79	0.68*	0.84	0.00	0.84
15.40	0.54	0.79	0.68*	0.84	0.00	0.84

BH-5 Liquefy.sum (Chinese)

15.45	0.54	0.79	0.68*	0.84	0.00	0.84
15.50	0.54	0.79	0.68*	0.84	0.00	0.84
15.55	0.54	0.79	0.68*	0.83	0.00	0.83
15.60	0.54	0.79	0.68*	0.83	0.00	0.83
15.65	0.54	0.79	0.68*	0.83	0.00	0.83
15.70	0.54	0.79	0.68*	0.83	0.00	0.83
15.75	0.54	0.79	0.68*	0.82	0.00	0.82
15.80	0.54	0.79	0.68*	0.82	0.00	0.82
15.85	0.54	0.79	0.68*	0.82	0.00	0.82
15.90	0.54	0.80	0.68*	0.82	0.00	0.82
15.95	0.54	0.80	0.68*	0.82	0.00	0.82
16.00	0.54	0.80	0.67*	0.81	0.00	0.81
16.05	0.54	0.80	0.67*	0.81	0.00	0.81
16.10	0.54	0.80	0.67*	0.81	0.00	0.81
16.15	0.54	0.80	0.67*	0.81	0.00	0.81
16.20	0.54	0.80	0.67*	0.81	0.00	0.81
16.25	0.54	0.80	0.67*	0.80	0.00	0.80
16.30	0.54	0.80	0.67*	0.80	0.00	0.80
16.35	0.54	0.80	0.67*	0.80	0.00	0.80
16.40	0.54	0.80	0.67*	0.80	0.00	0.80
16.45	0.54	0.80	0.67*	0.80	0.00	0.80
16.50	0.54	0.80	0.67*	0.79	0.00	0.79
16.55	0.54	0.80	0.67*	0.79	0.00	0.79
16.60	0.54	0.81	0.67*	0.79	0.00	0.79
16.65	0.54	0.81	0.67*	0.79	0.00	0.79
16.70	0.54	0.81	0.67*	0.78	0.00	0.78
16.75	0.54	0.81	0.67*	0.78	0.00	0.78
16.80	0.54	0.81	0.67*	0.78	0.00	0.78
16.85	0.54	0.81	0.66*	0.78	0.00	0.78
16.90	0.54	0.81	0.66*	0.78	0.00	0.78
16.95	0.54	0.81	0.66*	0.78	0.00	0.78
17.00	0.54	0.81	0.66*	0.77	0.00	0.77
17.05	0.54	0.81	0.66*	0.77	0.00	0.77
17.10	0.54	0.81	0.66*	0.77	0.00	0.77
17.15	0.54	0.81	0.66*	0.77	0.00	0.77
17.20	0.54	0.81	0.66*	0.77	0.00	0.77
17.25	0.54	0.81	0.66*	0.76	0.00	0.76
17.30	0.54	0.81	0.66*	0.76	0.00	0.76
17.35	0.54	0.82	0.66*	0.76	0.00	0.76
17.40	0.54	0.82	0.66*	0.76	0.00	0.76
17.45	0.54	0.82	0.66*	0.76	0.00	0.76
17.50	0.54	0.82	0.66*	0.75	0.00	0.75
17.55	0.54	0.82	0.66*	0.75	0.00	0.75
17.60	0.54	0.82	0.66*	0.75	0.00	0.75
17.65	0.54	0.82	0.66*	0.75	0.00	0.75
17.70	0.54	0.82	0.66*	0.75	0.00	0.75
17.75	0.54	0.82	0.66*	0.74	0.00	0.74
17.80	0.54	0.82	0.66*	0.74	0.00	0.74

BH-5 Liquefy.sum (Chinese)

17.85	0.54	0.82	0.65*	0.74	0.00	0.74
17.90	0.54	0.82	0.65*	0.74	0.00	0.74
17.95	0.54	0.82	0.65*	0.74	0.00	0.74
18.00	0.54	0.82	0.65*	0.73	0.00	0.73
18.05	0.54	0.82	0.65*	0.73	0.00	0.73
18.10	0.54	0.82	0.65*	0.73	0.00	0.73
18.15	0.54	0.82	0.65*	0.73	0.00	0.73
18.20	0.54	0.82	0.65*	0.73	0.00	0.73
18.25	0.54	0.83	0.65*	0.72	0.00	0.72
18.30	0.54	0.83	0.65*	0.72	0.00	0.72
18.35	0.54	0.83	0.65*	0.72	0.00	0.72
18.40	0.54	0.83	0.65*	0.72	0.00	0.72
18.45	0.54	0.83	0.65*	0.71	0.00	0.71
18.50	0.54	0.83	0.65*	0.71	0.00	0.71
18.55	0.54	0.83	0.65*	0.71	0.00	0.71
18.60	0.54	0.83	0.65*	0.71	0.00	0.71
18.65	0.54	0.83	0.65*	0.71	0.00	0.71
18.70	0.54	0.83	0.65*	0.70	0.00	0.70
18.75	0.54	0.83	0.65*	0.70	0.00	0.70
18.80	0.54	0.83	0.65*	0.70	0.00	0.70
18.85	0.54	0.83	0.65*	0.70	0.00	0.70
18.90	0.54	0.83	0.65*	0.70	0.00	0.70
18.95	0.54	0.83	0.65*	0.69	0.00	0.69
19.00	0.54	0.83	0.65*	0.69	0.00	0.69
19.05	0.54	0.83	0.65*	0.69	0.00	0.69
19.10	0.54	0.83	0.64*	0.69	0.00	0.69
19.15	0.54	0.83	0.64*	0.68	0.00	0.68
19.20	0.54	0.83	0.64*	0.68	0.00	0.68
19.25	0.54	0.83	0.64*	0.68	0.00	0.68
19.30	0.54	0.84	0.64*	0.68	0.00	0.68
19.35	0.54	0.84	0.64*	0.67	0.00	0.67
19.40	0.54	0.84	0.64*	0.67	0.00	0.67
19.45	0.54	0.84	0.64*	0.67	0.00	0.67
19.50	0.54	0.84	0.64*	0.67	0.00	0.67
19.55	0.54	0.84	0.64*	0.66	0.00	0.66
19.60	0.54	0.84	0.64*	0.66	0.00	0.66
19.65	0.54	0.84	0.64*	0.66	0.00	0.66
19.70	0.54	0.84	0.64*	0.66	0.00	0.66
19.75	0.54	0.84	0.64*	0.65	0.00	0.65
19.80	0.54	0.84	0.64*	0.65	0.00	0.65
19.85	0.54	0.84	0.64*	0.65	0.00	0.65
19.90	0.54	0.84	0.64*	0.65	0.00	0.65
19.95	0.54	0.84	0.64*	0.64	0.00	0.64
20.00	0.54	0.84	0.64*	0.64	0.00	0.64
20.05	0.54	0.84	0.64*	0.64	0.00	0.64
20.10	0.54	0.84	0.64*	0.64	0.00	0.64
20.15	0.54	0.84	0.64*	0.63	0.00	0.63
20.20	0.54	0.84	0.64*	0.63	0.00	0.63

BH-5 Liquefy.sum (Chinese)

20.25	0.54	0.84	0.64*	0.63	0.00	0.63
20.30	0.54	0.84	0.64*	0.62	0.00	0.62
20.35	0.54	0.84	0.64*	0.62	0.00	0.62
20.40	0.54	0.84	0.64*	0.62	0.00	0.62
20.45	0.54	0.84	0.64*	0.62	0.00	0.62
20.50	0.54	0.84	0.64*	0.61	0.00	0.61
20.55	0.54	0.84	0.64*	0.61	0.00	0.61
20.60	0.54	0.85	0.64*	0.61	0.00	0.61
20.65	0.54	0.85	0.64*	0.61	0.00	0.61
20.70	0.54	0.85	0.64*	0.60	0.00	0.60
20.75	0.54	0.85	0.64*	0.60	0.00	0.60
20.80	0.54	0.85	0.63*	0.60	0.00	0.60
20.85	0.54	0.85	0.63*	0.59	0.00	0.59
20.90	0.54	0.85	0.63*	0.59	0.00	0.59
20.95	0.54	0.85	0.63*	0.59	0.00	0.59
21.00	0.54	0.85	0.63*	0.59	0.00	0.59
21.05	0.54	0.85	0.63*	0.58	0.00	0.58
21.10	0.54	0.85	0.63*	0.58	0.00	0.58
21.15	0.54	0.85	0.63*	0.58	0.00	0.58
21.20	0.54	0.85	0.63*	0.58	0.00	0.58
21.25	0.54	0.85	0.63*	0.57	0.00	0.57
21.30	0.54	0.85	0.63*	0.57	0.00	0.57
21.35	0.54	0.85	0.63*	0.57	0.00	0.57
21.40	0.54	0.85	0.63*	0.56	0.00	0.56
21.45	0.54	0.85	0.63*	0.56	0.00	0.56
21.50	0.54	0.85	0.63*	0.56	0.00	0.56
21.55	0.54	0.85	0.63*	0.56	0.00	0.56
21.60	0.54	0.85	0.63*	0.55	0.00	0.55
21.65	0.54	0.85	0.63*	0.55	0.00	0.55
21.70	0.54	0.85	0.63*	0.55	0.00	0.55
21.75	0.54	0.85	0.63*	0.55	0.00	0.55
21.80	0.54	0.85	0.63*	0.54	0.00	0.54
21.85	0.54	0.85	0.63*	0.54	0.00	0.54
21.90	0.54	0.85	0.63*	0.54	0.00	0.54
21.95	0.54	0.85	0.63*	0.54	0.00	0.54
22.00	0.54	0.85	0.63*	0.53	0.00	0.53
22.05	0.54	0.85	0.63*	0.53	0.00	0.53
22.10	0.54	0.85	0.63*	0.53	0.00	0.53
22.15	0.54	0.86	0.63*	0.53	0.00	0.53
22.20	0.54	0.86	0.63*	0.52	0.00	0.52
22.25	0.54	0.86	0.63*	0.52	0.00	0.52
22.30	0.54	0.86	0.63*	0.52	0.00	0.52
22.35	0.54	0.86	0.63*	0.52	0.00	0.52
22.40	0.54	0.86	0.63*	0.52	0.00	0.52
22.45	0.54	0.86	0.63*	0.51	0.00	0.51
22.50	0.54	0.86	0.63*	0.51	0.00	0.51
22.55	0.54	0.86	0.63*	0.51	0.00	0.51
22.60	0.54	0.86	0.63*	0.51	0.00	0.51

BH-5 Liquefy.sum (Chinese)

22.65	0.54	0.86	0.63*	0.50	0.00	0.50
22.70	0.54	0.86	0.63*	0.50	0.00	0.50
22.75	0.54	0.86	0.63*	0.50	0.00	0.50
22.80	0.54	0.86	0.63*	0.50	0.00	0.50
22.85	0.54	0.86	0.63*	0.50	0.00	0.50
22.90	0.54	0.86	0.63*	0.49	0.00	0.49
22.95	0.54	0.86	0.63*	0.49	0.00	0.49
23.00	0.54	0.86	0.63*	0.49	0.00	0.49
23.05	0.54	0.86	0.62*	0.49	0.00	0.49
23.10	0.54	0.86	0.62*	0.49	0.00	0.49
23.15	0.54	0.86	0.62*	0.48	0.00	0.48
23.20	0.54	0.86	0.62*	0.48	0.00	0.48
23.25	0.54	0.86	0.62*	0.48	0.00	0.48
23.30	0.54	0.86	0.62*	0.48	0.00	0.48
23.35	0.54	0.86	0.62*	0.48	0.00	0.48
23.40	0.54	0.86	0.62*	0.47	0.00	0.47
23.45	0.54	0.86	0.62*	0.47	0.00	0.47
23.50	0.54	0.86	0.62*	0.47	0.00	0.47
23.55	0.54	0.86	0.62*	0.47	0.00	0.47
23.60	0.54	0.86	0.62*	0.47	0.00	0.47
23.65	0.54	0.86	0.62*	0.47	0.00	0.47
23.70	0.54	0.86	0.62*	0.46	0.00	0.46
23.75	0.54	0.86	0.62*	0.46	0.00	0.46
23.80	0.54	0.86	0.62*	0.46	0.00	0.46
23.85	0.54	0.86	0.62*	0.46	0.00	0.46
23.90	0.54	0.86	0.62*	0.46	0.00	0.46
23.95	0.54	0.86	0.62*	0.46	0.00	0.46
24.00	0.54	0.86	0.62*	0.45	0.00	0.45
24.05	0.54	0.86	0.62*	0.45	0.00	0.45
24.10	0.54	0.87	0.62*	0.45	0.00	0.45
24.15	0.54	0.87	0.62*	0.45	0.00	0.45
24.20	0.54	0.87	0.62*	0.45	0.00	0.45
24.25	0.54	0.87	0.62*	0.45	0.00	0.45
24.30	0.54	0.87	0.62*	0.45	0.00	0.45
24.35	0.54	0.87	0.62*	0.45	0.00	0.45
24.40	0.54	0.87	0.62*	0.44	0.00	0.44
24.45	0.54	0.87	0.62*	0.44	0.00	0.44
24.50	0.54	0.87	0.62*	0.44	0.00	0.44
24.55	0.54	0.87	0.62*	0.44	0.00	0.44
24.60	0.54	0.87	0.62*	0.44	0.00	0.44
24.65	0.54	0.87	0.62*	0.44	0.00	0.44
24.70	0.54	0.87	0.62*	0.44	0.00	0.44
24.75	0.54	0.87	0.62*	0.44	0.00	0.44
24.80	0.54	0.87	0.62*	0.43	0.00	0.43
24.85	0.54	0.87	0.62*	0.43	0.00	0.43
24.90	0.54	0.87	0.62*	0.43	0.00	0.43
24.95	0.54	0.87	0.62*	0.43	0.00	0.43
25.00	0.54	0.87	0.62*	0.43	0.00	0.43

BH-5 Liquefy.sum (Chinese)

25.05	2.00	0.87	5.00	0.43	0.00	0.43
25.10	2.00	0.87	5.00	0.43	0.00	0.43
25.15	2.00	0.87	5.00	0.43	0.00	0.43
25.20	2.00	0.87	5.00	0.43	0.00	0.43
25.25	2.00	0.87	5.00	0.43	0.00	0.43
25.30	2.00	0.87	5.00	0.43	0.00	0.43
25.35	2.00	0.87	5.00	0.43	0.00	0.43
25.40	2.00	0.87	5.00	0.43	0.00	0.43
25.45	2.00	0.87	5.00	0.43	0.00	0.43
25.50	2.00	0.87	5.00	0.43	0.00	0.43
25.55	2.00	0.87	5.00	0.43	0.00	0.43
25.60	2.00	0.87	5.00	0.43	0.00	0.43
25.65	2.00	0.87	5.00	0.43	0.00	0.43
25.70	2.00	0.87	5.00	0.43	0.00	0.43
25.75	2.00	0.87	5.00	0.43	0.00	0.43
25.80	2.00	0.87	5.00	0.43	0.00	0.43
25.85	2.00	0.87	5.00	0.43	0.00	0.43
25.90	2.00	0.87	5.00	0.43	0.00	0.43
25.95	2.00	0.87	5.00	0.43	0.00	0.43
26.00	2.00	0.87	5.00	0.43	0.00	0.43
26.05	2.00	0.87	5.00	0.43	0.00	0.43
26.10	2.00	0.87	5.00	0.43	0.00	0.43
26.15	2.00	0.87	5.00	0.43	0.00	0.43
26.20	2.00	0.87	5.00	0.43	0.00	0.43
26.25	2.00	0.87	5.00	0.43	0.00	0.43
26.30	2.00	0.87	5.00	0.43	0.00	0.43
26.35	2.00	0.87	5.00	0.43	0.00	0.43
26.40	2.00	0.87	5.00	0.43	0.00	0.43
26.45	2.00	0.87	5.00	0.43	0.00	0.43
26.50	2.00	0.87	5.00	0.43	0.00	0.43
26.55	2.00	0.87	5.00	0.43	0.00	0.43
26.60	2.00	0.87	5.00	0.43	0.00	0.43
26.65	2.00	0.88	5.00	0.43	0.00	0.43
26.70	2.00	0.88	5.00	0.43	0.00	0.43
26.75	2.00	0.88	5.00	0.43	0.00	0.43
26.80	2.00	0.88	5.00	0.43	0.00	0.43
26.85	2.00	0.88	5.00	0.43	0.00	0.43
26.90	2.00	0.88	5.00	0.43	0.00	0.43
26.95	2.00	0.88	5.00	0.43	0.00	0.43
27.00	2.00	0.88	5.00	0.43	0.00	0.43
27.05	2.00	0.88	5.00	0.43	0.00	0.43
27.10	2.00	0.88	5.00	0.43	0.00	0.43
27.15	2.00	0.88	5.00	0.43	0.00	0.43
27.20	2.00	0.88	5.00	0.43	0.00	0.43
27.25	2.00	0.88	5.00	0.43	0.00	0.43
27.30	2.00	0.88	5.00	0.43	0.00	0.43
27.35	2.00	0.88	5.00	0.43	0.00	0.43
27.40	2.00	0.88	5.00	0.43	0.00	0.43

BH-5 Liquefy.sum (Chinese)

27.45	2.00	0.88	5.00	0.43	0.00	0.43
27.50	2.00	0.88	5.00	0.43	0.00	0.43
27.55	2.00	0.88	5.00	0.43	0.00	0.43
27.60	2.00	0.88	5.00	0.43	0.00	0.43
27.65	2.00	0.88	5.00	0.43	0.00	0.43
27.70	2.00	0.88	5.00	0.43	0.00	0.43
27.75	2.00	0.88	5.00	0.43	0.00	0.43
27.80	2.00	0.88	5.00	0.43	0.00	0.43
27.85	2.00	0.88	5.00	0.43	0.00	0.43
27.90	2.00	0.88	5.00	0.43	0.00	0.43
27.95	2.00	0.88	5.00	0.43	0.00	0.43
28.00	2.00	0.88	5.00	0.43	0.00	0.43
28.05	2.00	0.88	5.00	0.43	0.00	0.43
28.10	2.00	0.88	5.00	0.43	0.00	0.43
28.15	2.00	0.88	5.00	0.43	0.00	0.43
28.20	2.00	0.88	5.00	0.43	0.00	0.43
28.25	2.00	0.88	5.00	0.43	0.00	0.43
28.30	2.00	0.88	5.00	0.43	0.00	0.43
28.35	2.00	0.88	5.00	0.43	0.00	0.43
28.40	2.00	0.88	5.00	0.43	0.00	0.43
28.45	2.00	0.88	5.00	0.43	0.00	0.43
28.50	2.00	0.88	5.00	0.43	0.00	0.43
28.55	2.00	0.88	5.00	0.43	0.00	0.43
28.60	2.00	0.88	5.00	0.43	0.00	0.43
28.65	2.00	0.88	5.00	0.43	0.00	0.43
28.70	2.00	0.88	5.00	0.43	0.00	0.43
28.75	2.00	0.88	5.00	0.43	0.00	0.43
28.80	2.00	0.88	5.00	0.43	0.00	0.43
28.85	2.00	0.88	5.00	0.43	0.00	0.43
28.90	2.00	0.88	5.00	0.43	0.00	0.43
28.95	2.00	0.88	5.00	0.43	0.00	0.43
29.00	2.00	0.88	5.00	0.43	0.00	0.43
29.05	2.00	0.88	5.00	0.43	0.00	0.43
29.10	2.00	0.88	5.00	0.43	0.00	0.43
29.15	2.00	0.88	5.00	0.43	0.00	0.43
29.20	2.00	0.88	5.00	0.43	0.00	0.43
29.25	2.00	0.88	5.00	0.43	0.00	0.43
29.30	2.00	0.88	5.00	0.43	0.00	0.43
29.35	2.00	0.88	5.00	0.43	0.00	0.43
29.40	2.00	0.88	5.00	0.43	0.00	0.43
29.45	2.00	0.88	5.00	0.43	0.00	0.43
29.50	2.00	0.88	5.00	0.43	0.00	0.43
29.55	2.00	0.88	5.00	0.43	0.00	0.43
29.60	2.00	0.88	5.00	0.43	0.00	0.43
29.65	2.00	0.88	5.00	0.43	0.00	0.43
29.70	2.00	0.88	5.00	0.43	0.00	0.43
29.75	2.00	0.88	5.00	0.43	0.00	0.43
29.80	2.00	0.88	5.00	0.43	0.00	0.43

BH-5 Liquefy.sum (Chinese)

29.85	2.00	0.88	5.00	0.43	0.00	0.43
29.90	2.00	0.88	5.00	0.43	0.00	0.43
29.95	2.00	0.88	5.00	0.43	0.00	0.43
30.00	2.00	0.88	5.00	0.43	0.00	0.43
30.05	0.53	0.88	0.60*	0.43	0.00	0.43
30.10	0.53	0.88	0.60*	0.43	0.00	0.43
30.15	0.53	0.88	0.60*	0.43	0.00	0.43
30.20	0.53	0.88	0.60*	0.43	0.00	0.43
30.25	0.53	0.88	0.60*	0.43	0.00	0.43
30.30	0.53	0.88	0.60*	0.43	0.00	0.43
30.35	0.53	0.88	0.60*	0.43	0.00	0.43
30.40	0.53	0.88	0.60*	0.43	0.00	0.43
30.45	0.53	0.88	0.60*	0.43	0.00	0.43
30.50	0.53	0.88	0.60*	0.43	0.00	0.43
30.55	0.53	0.88	0.60*	0.42	0.00	0.42
30.60	0.53	0.88	0.60*	0.42	0.00	0.42
30.65	0.53	0.88	0.60*	0.42	0.00	0.42
30.70	0.53	0.88	0.60*	0.42	0.00	0.42
30.75	0.53	0.88	0.60*	0.42	0.00	0.42
30.80	0.53	0.88	0.60*	0.42	0.00	0.42
30.85	0.53	0.88	0.60*	0.42	0.00	0.42
30.90	0.53	0.88	0.60*	0.42	0.00	0.42
30.95	0.53	0.88	0.60*	0.42	0.00	0.42
31.00	0.53	0.88	0.60*	0.42	0.00	0.42
31.05	0.53	0.88	0.60*	0.42	0.00	0.42
31.10	0.52	0.88	0.60*	0.42	0.00	0.42
31.15	0.52	0.88	0.60*	0.42	0.00	0.42
31.20	0.52	0.88	0.60*	0.41	0.00	0.41
31.25	0.52	0.88	0.60*	0.41	0.00	0.41
31.30	0.52	0.88	0.60*	0.41	0.00	0.41
31.35	0.52	0.88	0.60*	0.41	0.00	0.41
31.40	0.52	0.88	0.60*	0.41	0.00	0.41
31.45	0.52	0.88	0.60*	0.41	0.00	0.41
31.50	0.52	0.88	0.60*	0.41	0.00	0.41
31.55	0.52	0.88	0.60*	0.41	0.00	0.41
31.60	0.52	0.88	0.60*	0.41	0.00	0.41
31.65	0.52	0.88	0.60*	0.41	0.00	0.41
31.70	0.52	0.88	0.60*	0.41	0.00	0.41
31.75	0.52	0.88	0.60*	0.41	0.00	0.41
31.80	0.52	0.88	0.60*	0.40	0.00	0.40
31.85	0.52	0.88	0.60*	0.40	0.00	0.40
31.90	0.52	0.88	0.60*	0.40	0.00	0.40
31.95	0.52	0.88	0.59*	0.40	0.00	0.40
32.00	0.52	0.88	0.59*	0.40	0.00	0.40
32.05	0.52	0.88	0.59*	0.40	0.00	0.40
32.10	0.52	0.88	0.59*	0.40	0.00	0.40
32.15	0.52	0.88	0.59*	0.40	0.00	0.40
32.20	0.52	0.88	0.59*	0.40	0.00	0.40

BH-5 Liquefy.sum (Chinese)

32.25	0.52	0.88	0.59*	0.40	0.00	0.40
32.30	0.52	0.88	0.59*	0.40	0.00	0.40
32.35	0.52	0.88	0.59*	0.39	0.00	0.39
32.40	0.52	0.88	0.59*	0.39	0.00	0.39
32.45	0.52	0.88	0.59*	0.39	0.00	0.39
32.50	0.52	0.88	0.59*	0.39	0.00	0.39
32.55	0.52	0.88	0.59*	0.39	0.00	0.39
32.60	0.52	0.87	0.59*	0.39	0.00	0.39
32.65	0.52	0.87	0.59*	0.39	0.00	0.39
32.70	0.52	0.87	0.59*	0.39	0.00	0.39
32.75	0.52	0.87	0.59*	0.39	0.00	0.39
32.80	0.52	0.87	0.59*	0.39	0.00	0.39
32.85	0.52	0.87	0.59*	0.38	0.00	0.38
32.90	0.52	0.87	0.59*	0.38	0.00	0.38
32.95	0.52	0.87	0.59*	0.38	0.00	0.38
33.00	0.52	0.87	0.59*	0.38	0.00	0.38
33.05	0.52	0.87	0.59*	0.38	0.00	0.38
33.10	0.52	0.87	0.59*	0.38	0.00	0.38
33.15	0.52	0.87	0.59*	0.38	0.00	0.38
33.20	0.52	0.87	0.59*	0.38	0.00	0.38
33.25	0.52	0.87	0.59*	0.38	0.00	0.38
33.30	0.52	0.87	0.59*	0.37	0.00	0.37
33.35	0.52	0.87	0.59*	0.37	0.00	0.37
33.40	0.52	0.87	0.59*	0.37	0.00	0.37
33.45	0.52	0.87	0.59*	0.37	0.00	0.37
33.50	0.52	0.87	0.59*	0.37	0.00	0.37
33.55	0.52	0.87	0.59*	0.37	0.00	0.37
33.60	0.52	0.87	0.59*	0.37	0.00	0.37
33.65	0.52	0.87	0.59*	0.37	0.00	0.37
33.70	0.52	0.87	0.59*	0.37	0.00	0.37
33.75	0.52	0.87	0.59*	0.36	0.00	0.36
33.80	0.52	0.87	0.59*	0.36	0.00	0.36
33.85	0.52	0.87	0.59*	0.36	0.00	0.36
33.90	0.52	0.87	0.59*	0.36	0.00	0.36
33.95	0.52	0.87	0.59*	0.36	0.00	0.36
34.00	0.52	0.87	0.59*	0.36	0.00	0.36
34.05	0.52	0.87	0.59*	0.36	0.00	0.36
34.10	0.52	0.87	0.59*	0.35	0.00	0.35
34.15	0.51	0.87	0.59*	0.35	0.00	0.35
34.20	0.51	0.87	0.59*	0.35	0.00	0.35
34.25	0.51	0.87	0.59*	0.35	0.00	0.35
34.30	0.51	0.87	0.59*	0.35	0.00	0.35
34.35	0.51	0.87	0.59*	0.35	0.00	0.35
34.40	0.51	0.87	0.59*	0.34	0.00	0.34
34.45	0.51	0.87	0.59*	0.34	0.00	0.34
34.50	0.51	0.87	0.59*	0.34	0.00	0.34
34.55	0.51	0.87	0.59*	0.34	0.00	0.34
34.60	0.51	0.87	0.59*	0.34	0.00	0.34

BH-5 Liquefy.sum (Chinese)

34.65	0.51	0.87	0.59*	0.33	0.00	0.33
34.70	0.51	0.87	0.59*	0.33	0.00	0.33
34.75	0.51	0.87	0.59*	0.33	0.00	0.33
34.80	0.51	0.87	0.59*	0.33	0.00	0.33
34.85	0.51	0.87	0.59*	0.32	0.00	0.32
34.90	0.51	0.86	0.59*	0.32	0.00	0.32
34.95	0.51	0.86	0.59*	0.32	0.00	0.32
35.00	0.51	0.86	0.59*	0.32	0.00	0.32
35.05	0.51	0.86	0.59*	0.31	0.00	0.31
35.10	0.51	0.86	0.59*	0.31	0.00	0.31
35.15	0.51	0.86	0.59*	0.31	0.00	0.31
35.20	0.51	0.86	0.59*	0.31	0.00	0.31
35.25	0.51	0.86	0.59*	0.30	0.00	0.30
35.30	0.51	0.86	0.59*	0.30	0.00	0.30
35.35	0.51	0.86	0.59*	0.30	0.00	0.30
35.40	0.51	0.86	0.59*	0.29	0.00	0.29
35.45	0.51	0.86	0.59*	0.29	0.00	0.29
35.50	0.51	0.86	0.59*	0.29	0.00	0.29
35.55	0.51	0.86	0.59*	0.29	0.00	0.29
35.60	0.51	0.86	0.59*	0.28	0.00	0.28
35.65	0.51	0.86	0.59*	0.28	0.00	0.28
35.70	0.51	0.86	0.59*	0.28	0.00	0.28
35.75	0.51	0.86	0.59*	0.28	0.00	0.28
35.80	0.51	0.86	0.59*	0.27	0.00	0.27
35.85	0.51	0.86	0.59*	0.27	0.00	0.27
35.90	0.51	0.86	0.59*	0.27	0.00	0.27
35.95	0.51	0.86	0.59*	0.27	0.00	0.27
36.00	0.51	0.86	0.59*	0.26	0.00	0.26
36.05	0.51	0.86	0.59*	0.26	0.00	0.26
36.10	0.51	0.86	0.59*	0.26	0.00	0.26
36.15	0.51	0.86	0.59*	0.26	0.00	0.26
36.20	0.51	0.86	0.59*	0.25	0.00	0.25
36.25	0.51	0.86	0.59*	0.25	0.00	0.25
36.30	0.51	0.86	0.59*	0.25	0.00	0.25
36.35	0.51	0.86	0.59*	0.25	0.00	0.25
36.40	0.51	0.86	0.59*	0.25	0.00	0.25
36.45	0.51	0.86	0.59*	0.24	0.00	0.24
36.50	0.51	0.86	0.59*	0.24	0.00	0.24
36.55	0.51	0.86	0.59*	0.24	0.00	0.24
36.60	0.51	0.86	0.59*	0.24	0.00	0.24
36.65	0.51	0.86	0.59*	0.23	0.00	0.23
36.70	0.51	0.86	0.59*	0.23	0.00	0.23
36.75	0.51	0.86	0.59*	0.23	0.00	0.23
36.80	0.51	0.86	0.59*	0.23	0.00	0.23
36.85	0.51	0.86	0.59*	0.22	0.00	0.22
36.90	0.51	0.86	0.59*	0.22	0.00	0.22
36.95	0.51	0.86	0.59*	0.22	0.00	0.22
37.00	0.51	0.86	0.59*	0.22	0.00	0.22

BH-5 Liquefy.sum (Chinese)

37.05	0.51	0.86	0.59*	0.21	0.00	0.21
37.10	0.51	0.86	0.59*	0.21	0.00	0.21
37.15	0.51	0.86	0.59*	0.21	0.00	0.21
37.20	0.51	0.85	0.59*	0.21	0.00	0.21
37.25	0.51	0.85	0.59*	0.21	0.00	0.21
37.30	0.51	0.85	0.59*	0.20	0.00	0.20
37.35	0.51	0.85	0.59*	0.20	0.00	0.20
37.40	0.50	0.85	0.59*	0.20	0.00	0.20
37.45	0.50	0.85	0.59*	0.20	0.00	0.20
37.50	0.50	0.85	0.59*	0.19	0.00	0.19
37.55	0.50	0.85	0.59*	0.19	0.00	0.19
37.60	0.50	0.85	0.59*	0.19	0.00	0.19
37.65	0.50	0.85	0.59*	0.19	0.00	0.19
37.70	0.50	0.85	0.59*	0.19	0.00	0.19
37.75	0.50	0.85	0.59*	0.18	0.00	0.18
37.80	0.50	0.85	0.59*	0.18	0.00	0.18
37.85	0.50	0.85	0.59*	0.18	0.00	0.18
37.90	0.50	0.85	0.59*	0.18	0.00	0.18
37.95	0.50	0.85	0.59*	0.18	0.00	0.18
38.00	0.50	0.85	0.59*	0.17	0.00	0.17
38.05	0.50	0.85	0.59*	0.17	0.00	0.17
38.10	0.50	0.85	0.59*	0.17	0.00	0.17
38.15	0.50	0.85	0.59*	0.17	0.00	0.17
38.20	0.50	0.85	0.59*	0.17	0.00	0.17
38.25	0.50	0.85	0.59*	0.16	0.00	0.16
38.30	0.50	0.85	0.59*	0.16	0.00	0.16
38.35	0.50	0.85	0.59*	0.16	0.00	0.16
38.40	0.50	0.85	0.59*	0.16	0.00	0.16
38.45	0.50	0.85	0.59*	0.15	0.00	0.15
38.50	0.50	0.85	0.59*	0.15	0.00	0.15
38.55	0.50	0.85	0.59*	0.15	0.00	0.15
38.60	0.50	0.85	0.59*	0.15	0.00	0.15
38.65	0.50	0.85	0.59*	0.15	0.00	0.15
38.70	0.50	0.85	0.59*	0.14	0.00	0.14
38.75	0.50	0.85	0.59*	0.14	0.00	0.14
38.80	0.50	0.85	0.59*	0.14	0.00	0.14
38.85	0.50	0.85	0.59*	0.14	0.00	0.14
38.90	0.50	0.85	0.59*	0.14	0.00	0.14
38.95	0.50	0.85	0.59*	0.13	0.00	0.13
39.00	0.50	0.85	0.59*	0.13	0.00	0.13
39.05	0.50	0.85	0.59*	0.13	0.00	0.13
39.10	0.50	0.85	0.59*	0.13	0.00	0.13
39.15	0.50	0.85	0.59*	0.13	0.00	0.13
39.20	0.50	0.85	0.59*	0.13	0.00	0.13
39.25	0.50	0.85	0.59*	0.12	0.00	0.12
39.30	0.50	0.85	0.59*	0.12	0.00	0.12
39.35	0.50	0.85	0.59*	0.12	0.00	0.12
39.40	0.50	0.85	0.59*	0.12	0.00	0.12

BH-5 Liquefy.sum (Chinese)

39.45	0.50	0.85	0.59*	0.12	0.00	0.12
39.50	0.50	0.85	0.59*	0.11	0.00	0.11
39.55	0.50	0.85	0.59*	0.11	0.00	0.11
39.60	0.50	0.85	0.59*	0.11	0.00	0.11
39.65	0.50	0.85	0.59*	0.11	0.00	0.11
39.70	0.50	0.85	0.59*	0.11	0.00	0.11
39.75	0.50	0.85	0.59*	0.11	0.00	0.11
39.80	0.50	0.85	0.59*	0.10	0.00	0.10
39.85	0.50	0.85	0.59*	0.10	0.00	0.10
39.90	0.50	0.84	0.59*	0.10	0.00	0.10
39.95	0.50	0.84	0.59*	0.10	0.00	0.10
40.00	0.50	0.84	0.59*	0.10	0.00	0.10
40.05	0.50	0.84	0.59*	0.10	0.00	0.10
40.10	0.50	0.84	0.59*	0.10	0.00	0.10
40.15	0.50	0.84	0.59*	0.09	0.00	0.09
40.20	0.50	0.84	0.59*	0.09	0.00	0.09
40.25	0.50	0.84	0.59*	0.09	0.00	0.09
40.30	0.50	0.84	0.59*	0.09	0.00	0.09
40.35	0.50	0.84	0.59*	0.09	0.00	0.09
40.40	0.50	0.84	0.59*	0.09	0.00	0.09
40.45	0.50	0.84	0.59*	0.09	0.00	0.09
40.50	0.50	0.84	0.59*	0.09	0.00	0.09
40.55	0.50	0.84	0.59*	0.09	0.00	0.09
40.60	0.50	0.84	0.59*	0.08	0.00	0.08
40.65	0.50	0.84	0.59*	0.08	0.00	0.08
40.70	0.50	0.84	0.59*	0.08	0.00	0.08
40.75	0.50	0.84	0.59*	0.08	0.00	0.08
40.80	0.50	0.84	0.59*	0.08	0.00	0.08
40.85	0.50	0.84	0.59*	0.08	0.00	0.08
40.90	0.50	0.84	0.59*	0.08	0.00	0.08
40.95	0.50	0.84	0.59*	0.08	0.00	0.08
41.00	0.50	0.84	0.59*	0.07	0.00	0.07
41.05	0.50	0.84	0.59*	0.07	0.00	0.07
41.10	0.50	0.84	0.59*	0.07	0.00	0.07
41.15	0.50	0.84	0.59*	0.07	0.00	0.07
41.20	0.50	0.84	0.59*	0.07	0.00	0.07
41.25	0.49	0.84	0.59*	0.07	0.00	0.07
41.30	0.49	0.84	0.59*	0.07	0.00	0.07
41.35	0.49	0.84	0.59*	0.07	0.00	0.07
41.40	0.49	0.84	0.59*	0.07	0.00	0.07
41.45	0.49	0.84	0.59*	0.06	0.00	0.06
41.50	0.49	0.84	0.59*	0.06	0.00	0.06
41.55	0.49	0.84	0.59*	0.06	0.00	0.06
41.60	0.49	0.84	0.59*	0.06	0.00	0.06
41.65	0.49	0.84	0.59*	0.06	0.00	0.06
41.70	0.49	0.84	0.59*	0.06	0.00	0.06
41.75	0.49	0.84	0.59*	0.06	0.00	0.06
41.80	0.49	0.84	0.59*	0.06	0.00	0.06

BH-5 Liquefy.sum (Chinese)

41.85	0.49	0.84	0.59*	0.06	0.00	0.06
41.90	0.49	0.84	0.59*	0.06	0.00	0.06
41.95	0.49	0.84	0.59*	0.05	0.00	0.05
42.00	0.49	0.84	0.59*	0.05	0.00	0.05
42.05	0.49	0.84	0.59*	0.05	0.00	0.05
42.10	0.49	0.84	0.59*	0.05	0.00	0.05
42.15	0.49	0.84	0.59*	0.05	0.00	0.05
42.20	0.49	0.84	0.59*	0.05	0.00	0.05
42.25	0.49	0.84	0.59*	0.05	0.00	0.05
42.30	0.49	0.84	0.59*	0.05	0.00	0.05
42.35	0.49	0.84	0.59*	0.05	0.00	0.05
42.40	0.49	0.84	0.59*	0.04	0.00	0.04
42.45	0.49	0.84	0.59*	0.04	0.00	0.04
42.50	0.49	0.84	0.59*	0.04	0.00	0.04
42.55	0.49	0.84	0.59*	0.04	0.00	0.04
42.60	0.49	0.84	0.59*	0.04	0.00	0.04
42.65	0.49	0.84	0.59*	0.04	0.00	0.04
42.70	0.49	0.83	0.59*	0.04	0.00	0.04
42.75	0.49	0.83	0.59*	0.04	0.00	0.04
42.80	0.49	0.83	0.59*	0.04	0.00	0.04
42.85	0.49	0.83	0.59*	0.04	0.00	0.04
42.90	0.49	0.83	0.59*	0.04	0.00	0.04
42.95	0.49	0.83	0.59*	0.03	0.00	0.03
43.00	0.49	0.83	0.59*	0.03	0.00	0.03
43.05	0.49	0.83	0.59*	0.03	0.00	0.03
43.10	0.49	0.83	0.59*	0.03	0.00	0.03
43.15	0.49	0.83	0.59*	0.03	0.00	0.03
43.20	0.49	0.83	0.59*	0.03	0.00	0.03
43.25	0.49	0.83	0.59*	0.03	0.00	0.03
43.30	0.49	0.83	0.59*	0.03	0.00	0.03
43.35	0.49	0.83	0.59*	0.03	0.00	0.03
43.40	0.49	0.83	0.59*	0.03	0.00	0.03
43.45	0.49	0.83	0.59*	0.03	0.00	0.03
43.50	0.49	0.83	0.59*	0.02	0.00	0.02
43.55	0.49	0.83	0.59*	0.02	0.00	0.02
43.60	0.49	0.83	0.59*	0.02	0.00	0.02
43.65	0.49	0.83	0.59*	0.02	0.00	0.02
43.70	0.49	0.83	0.59*	0.02	0.00	0.02
43.75	0.49	0.83	0.59*	0.02	0.00	0.02
43.80	0.49	0.83	0.59*	0.02	0.00	0.02
43.85	0.49	0.83	0.59*	0.02	0.00	0.02
43.90	0.49	0.83	0.59*	0.02	0.00	0.02
43.95	0.49	0.83	0.59*	0.02	0.00	0.02
44.00	0.49	0.83	0.59*	0.02	0.00	0.02
44.05	0.49	0.83	0.59*	0.02	0.00	0.02
44.10	0.49	0.83	0.59*	0.02	0.00	0.02
44.15	0.49	0.83	0.59*	0.01	0.00	0.01
44.20	0.49	0.83	0.59*	0.01	0.00	0.01

BH-5 Liquefy.sum (Chinese)

44.25	0.49	0.83	0.59*	0.01	0.00	0.01
44.30	0.49	0.83	0.59*	0.01	0.00	0.01
44.35	0.49	0.83	0.59*	0.01	0.00	0.01
44.40	0.49	0.83	0.59*	0.01	0.00	0.01
44.45	0.49	0.83	0.59*	0.01	0.00	0.01
44.50	0.49	0.83	0.59*	0.01	0.00	0.01
44.55	0.49	0.83	0.59*	0.01	0.00	0.01
44.60	0.49	0.83	0.59*	0.01	0.00	0.01
44.65	0.49	0.83	0.59*	0.01	0.00	0.01
44.70	0.49	0.83	0.59*	0.01	0.00	0.01
44.75	0.49	0.83	0.59*	0.01	0.00	0.01
44.80	0.49	0.83	0.59*	0.01	0.00	0.01
44.85	0.49	0.83	0.59*	0.00	0.00	0.00
44.90	0.49	0.83	0.59*	0.00	0.00	0.00
44.95	0.49	0.83	0.59*	0.00	0.00	0.00
45.00	0.49	0.83	0.59*	0.00	0.00	0.00
45.05	0.49	0.83	0.59*	0.00	0.00	0.00
45.10	0.49	0.82	0.59*	0.00	0.00	0.00
45.15	0.49	0.82	0.59*	0.00	0.00	0.00
45.20	0.49	0.82	0.59*	0.00	0.00	0.00
45.25	0.49	0.82	0.59*	0.00	0.00	0.00
45.30	0.49	0.82	0.59*	0.00	0.00	0.00
45.35	0.49	0.82	0.59*	0.00	0.00	0.00
45.40	0.49	0.82	0.59*	0.00	0.00	0.00
45.45	0.49	0.82	0.59*	0.00	0.00	0.00
45.50	0.48	0.82	0.59*	0.00	0.00	0.00
45.55	0.48	0.82	0.59*	0.00	0.00	0.00
45.60	0.48	0.82	0.59*	0.00	0.00	0.00
45.65	0.48	0.82	0.59*	0.00	0.00	0.00
45.70	0.48	0.82	0.59*	0.00	0.00	0.00
45.75	0.48	0.82	0.59*	0.00	0.00	0.00
45.80	0.48	0.82	0.59*	0.00	0.00	0.00
45.85	0.48	0.82	0.59*	0.00	0.00	0.00
45.90	0.48	0.82	0.59*	0.00	0.00	0.00
45.95	0.48	0.82	0.59*	0.00	0.00	0.00
46.00	0.48	0.82	0.59*	0.00	0.00	0.00
46.05	0.48	0.82	0.59*	0.00	0.00	0.00
46.10	0.48	0.82	0.59*	0.00	0.00	0.00
46.15	0.48	0.82	0.59*	0.00	0.00	0.00
46.20	0.48	0.82	0.59*	0.00	0.00	0.00
46.25	0.48	0.82	0.59*	0.00	0.00	0.00
46.30	0.48	0.82	0.59*	0.00	0.00	0.00
46.35	0.48	0.82	0.59*	0.00	0.00	0.00
46.40	0.48	0.82	0.59*	0.00	0.00	0.00
46.45	0.48	0.82	0.59*	0.00	0.00	0.00
46.50	0.48	0.82	0.59*	0.00	0.00	0.00
46.55	0.48	0.82	0.59*	0.00	0.00	0.00
46.60	0.48	0.82	0.59*	0.00	0.00	0.00

BH-5 Liquefy.sum (Chinese)

46.65	0.48	0.82	0.59*	0.00	0.00	0.00
46.70	0.48	0.82	0.59*	0.00	0.00	0.00
46.75	0.48	0.82	0.59*	0.00	0.00	0.00
46.80	0.48	0.82	0.59*	0.00	0.00	0.00
46.85	0.48	0.82	0.59*	0.00	0.00	0.00
46.90	0.48	0.82	0.59*	0.00	0.00	0.00
46.95	0.48	0.82	0.59*	0.00	0.00	0.00
47.00	0.48	0.82	0.59*	0.00	0.00	0.00
47.05	0.48	0.82	0.59*	0.00	0.00	0.00
47.10	0.48	0.81	0.59*	0.00	0.00	0.00
47.15	0.48	0.81	0.59*	0.00	0.00	0.00
47.20	0.48	0.81	0.59*	0.00	0.00	0.00
47.25	0.48	0.81	0.59*	0.00	0.00	0.00
47.30	0.48	0.81	0.59*	0.00	0.00	0.00
47.35	0.48	0.81	0.59*	0.00	0.00	0.00
47.40	0.48	0.81	0.59*	0.00	0.00	0.00
47.45	0.48	0.81	0.59*	0.00	0.00	0.00
47.50	0.48	0.81	0.59*	0.00	0.00	0.00
47.55	0.48	0.81	0.59*	0.00	0.00	0.00
47.60	0.48	0.81	0.59*	0.00	0.00	0.00
47.65	0.48	0.81	0.59*	0.00	0.00	0.00
47.70	0.48	0.81	0.59*	0.00	0.00	0.00
47.75	0.48	0.81	0.59*	0.00	0.00	0.00
47.80	0.48	0.81	0.59*	0.00	0.00	0.00
47.85	0.48	0.81	0.59*	0.00	0.00	0.00
47.90	0.48	0.81	0.59*	0.00	0.00	0.00
47.95	0.48	0.81	0.59*	0.00	0.00	0.00
48.00	0.48	0.81	0.59*	0.00	0.00	0.00
48.05	0.48	0.81	0.59*	0.00	0.00	0.00
48.10	0.48	0.81	0.59*	0.00	0.00	0.00
48.15	0.48	0.81	0.59*	0.00	0.00	0.00
48.20	0.48	0.81	0.59*	0.00	0.00	0.00
48.25	0.48	0.81	0.59*	0.00	0.00	0.00
48.30	0.48	0.81	0.59*	0.00	0.00	0.00
48.35	0.48	0.81	0.59*	0.00	0.00	0.00
48.40	0.48	0.81	0.59*	0.00	0.00	0.00
48.45	0.48	0.81	0.59*	0.00	0.00	0.00
48.50	0.48	0.81	0.59*	0.00	0.00	0.00
48.55	0.48	0.81	0.59*	0.00	0.00	0.00
48.60	0.48	0.81	0.59*	0.00	0.00	0.00
48.65	0.48	0.81	0.59*	0.00	0.00	0.00
48.70	0.48	0.81	0.59*	0.00	0.00	0.00
48.75	0.48	0.81	0.59*	0.00	0.00	0.00
48.80	0.48	0.81	0.59*	0.00	0.00	0.00
48.85	0.48	0.80	0.59*	0.00	0.00	0.00
48.90	0.48	0.80	0.59*	0.00	0.00	0.00
48.95	0.48	0.80	0.59*	0.00	0.00	0.00
49.00	0.48	0.80	0.59*	0.00	0.00	0.00

BH-5 Liquefy.sum (Chinese)

49.05	0.48	0.80	0.59*	0.00	0.00	0.00
49.10	0.48	0.80	0.59*	0.00	0.00	0.00
49.15	0.48	0.80	0.59*	0.00	0.00	0.00
49.20	0.48	0.80	0.59*	0.00	0.00	0.00
49.25	0.48	0.80	0.59*	0.00	0.00	0.00
49.30	0.48	0.80	0.59*	0.00	0.00	0.00
49.35	0.48	0.80	0.59*	0.00	0.00	0.00
49.40	0.48	0.80	0.59*	0.00	0.00	0.00
49.45	0.48	0.80	0.59*	0.00	0.00	0.00
49.50	0.48	0.80	0.59*	0.00	0.00	0.00
49.55	0.48	0.80	0.59*	0.00	0.00	0.00
49.60	0.48	0.80	0.59*	0.00	0.00	0.00
49.65	0.48	0.80	0.59*	0.00	0.00	0.00
49.70	0.47	0.80	0.59*	0.00	0.00	0.00
49.75	0.47	0.80	0.59*	0.00	0.00	0.00
49.80	0.47	0.80	0.59*	0.00	0.00	0.00
49.85	0.47	0.80	0.59*	0.00	0.00	0.00
49.90	0.47	0.80	0.59*	0.00	0.00	0.00
49.95	0.47	0.80	0.59*	0.00	0.00	0.00
50.00	0.47	0.80	0.59*	0.00	0.00	0.00
50.05	0.47	0.80	0.59*	0.00	0.00	0.00
50.10	0.47	0.80	0.59*	0.00	0.00	0.00
50.15	0.47	0.80	0.59*	0.00	0.00	0.00
50.20	0.47	0.80	0.59*	0.00	0.00	0.00
50.25	0.47	0.80	0.60*	0.00	0.00	0.00
50.30	0.47	0.80	0.60*	0.00	0.00	0.00
50.35	0.47	0.80	0.60*	0.00	0.00	0.00
50.40	0.47	0.79	0.60*	0.00	0.00	0.00
50.45	0.47	0.79	0.60*	0.00	0.00	0.00
50.50	0.47	0.79	0.60*	0.00	0.00	0.00
50.55	0.47	0.79	0.60*	0.00	0.00	0.00
50.60	0.47	0.79	0.60*	0.00	0.00	0.00
50.65	0.47	0.79	0.60*	0.00	0.00	0.00
50.70	0.47	0.79	0.60*	0.00	0.00	0.00
50.75	0.47	0.79	0.60*	0.00	0.00	0.00
50.80	0.47	0.79	0.60*	0.00	0.00	0.00
50.85	0.47	0.79	0.60*	0.00	0.00	0.00
50.90	0.47	0.79	0.60*	0.00	0.00	0.00
50.95	0.47	0.79	0.60*	0.00	0.00	0.00
51.00	0.47	0.79	0.60*	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

BH-5 Liquefy.sum (Chinese)

1 atm (atmosphere) = 1 tsf (ton/ft²)

CRRm Cyclic resistance ratio from soils

request CSRsf Cyclic stress ratio induced by a given earthquake (with user
factor of safety)

F.S. Factor of Safety against liquefaction, $F.S. = CRRm / CSRsf$

S_sat Settlement from saturated sands

S_dry Settlement from Unsaturated Sands

S_all Total Settlement from Saturated and Unsaturated Sands

NoLiq No-Liquefy Soils

Reference B

Conceptual Plans