

SOIL_CLASS_GEOLOGICAL CASMALIARIFS.GPJ GEOL.GDT 12/13/10

MAJOR DIVISIONS			SYMBOLS	TYPICAL NAMES
COARSE-GRAINED SOILS OVER 50% > No.200 SIEVE SIZE	GRAVELS MORE THAN 1/2 OF COARSE FRACTION > No.4 SIEVE SIZE	CLEAN GRAVELS WITH LESS THAN 5% FINES	GW	Well-graded gravels or gravel-sand mixtures, little or no fines
			GP	Poorly graded gravels or gravel-sand mixtures, little or no fines
		GRAVELS WITH OVER 15% FINES	GM	Silty gravels, gravel-sand mixtures
			GC	Clayey gravels, gravel-sand-clay mixtures
	SANDS MORE THAN 1/2 OF COARSE FRACTION < No.4 SIEVE SIZE	CLEAN SANDS WITH LESS THAN 5% FINES	SW	Well-graded sand or gravelly sands, little or no fines
			SP	Poorly graded sands or gravelly sands, little or no fines
		SANDS WITH OVER 15% FINES	SM	Silty sand, sand-silt mixtures
			SC	Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS OVER 50% < No.200 SIEVE SIZE	SILTS & CLAYS LIQUID LIMIT 50% OR LESS		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
			OL	Organic silts and organic silty clays of low plasticity
	SILTS & CLAYS LIQUID LIMIT GREATER THAN 50%		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
			CH	Inorganic clays of high plasticity, fat clays
			OH	Organic clays of medium to high plasticity, organic silty clays, organic silts
	HIGHLY ORGANIC SOILS		PT	Peat and other highly organic soils

UNIFIED SOIL CLASSIFICATION SYSTEM - ASTM D2488-93

	Bulk or classification sample
	Sample preserved for possible laboratory analysis
	No Recovery
	Hydropunch Sample
	First encountered groundwater
	Static groundwater level
(10YR 4/4)	Munsell Soil color 1990 edition
NA	Not Available
ND	Not Detected

CLASSIFICATION	RANGE OF GRAIN SIZES	
	U.S. Standard Sieve Size	Grain Size in Millimeters
BOULDERS	Above 12"	Above 305
COBBLES	12" to 3"	305 to 76.2
GRAVEL coarse fine	3" to No. 4	76.2 to 4.75
	3" to 3/4"	76.2 to 19.1
	3/4" to No. 4	19.1 to 4.75
SAND coarse medium fine	No. 4 to No. 200	4.75 to 0.075
	No. 4 to No. 10	4.75 to 2.00
	No. 10 to No. 40	2.00 to 0.425
	No. 40 to No. 200	0.425 to 0.075
SILT & CLAY	Below No. 200	Below 0.075

KEY TO TEST DATA*

Source: ASTM D 2488-93, based on Unified Soil Classification system
*. Not part of ASTM Classification System

Soil Classification Chart and Key to Test Data PLATE

Final Remedial Investigation Report
Casmalia Resources Superfund Site
Casmalia, California

E9-56

DRAWN	JOB NUMBER	CHECKED	CHCK'D DATE	APPROVED	APPRV'D DATE
PCB	4088097619	WJF	1/11	WBC	1/11