

SOIL & AGGREGATE TABULATION MATERIALS SURVEY

USE CAPITAL LETTERS

LAB NUMBER				MATL		TYPE		PURPOSE S = MAT SURVEY I = INVEST R = RESEARCH		TEST NO.		SUFFIX		SAMPLED BY					
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MONTH			DAY			YEAR			INVEST. MODE		MATL. DESC.		MATL. DESC.		FROM			TO			IN = INCHES FT = FEET	
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DISTANCE				R-L		E = EXISTING N = NEW ALIGNMENT M = MEDIAN		RDWY		C/L		STATION			
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PROJECT NUMBER										PROJECT NAME									
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REMARKS																							
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ARIZ 201

SAMPLED FROM

PIT. NO.

MILEPOST

+ 3"		+ 6"		COARSE FACTOR	
WET SAMPLE PREWEIGHT =					
WET WT. OF - #4 =					
- #4 SPLIT WET WT =					

T = AASHTO TESTS		D = ASTM TESTS			
Liquid Limit (LL)		T - 89			
Plastic Limit (PL)		T - 90			
Plasticity Index (PI) = LL-PL		T - 90			
Sand Equivalent	T - 176 ARIZ 242 (MARC)				
Abrasion Method (A,B,C,D)		T - 96			
@ 100 Revolutions					%
@ 200 Revolutions					%
Absorption, H ₂ O	ARIZ 210 ARIZ 211				%
Specific Gravity, OD	ARIZ 210 ARIZ 211				%
Proctor Method					
Optimum Moisture					%
Max. Dry Density					PCF
Moisture Content (see back)		T - 255 T - 265			%
pH	ARIZ 236 OR ARIZ 237				
Resistivity (ohm-cm)	ARIZ 236				
R-Value @ 300 psi		T - 190			
Hydrometer T 88 (Smaller than 0.02 mm)					%
(Smaller than 0.02 mm)					%
(Smaller than 0.02 mm)					%
Chloride Content	ARIZ 736				PPM
Sulfate Content	ARIZ 733				PPM

TEST OPERATOR & DATE PERFORMED	
Coarse Sieve	
Fine Sieve	
P.I.	
Sand Equiv.	
Abrasion	
Fine Sp. Gr.	
Coarse Sp. Gr.	
Proctor	
Moisture	
pH	
Resistivity	
R- Value	
Hydrometer	
Chloride Content	
Sulfate Content	
Misc. Test s (Code)	

A - ARIZ 225	AD - ARIZ 245
C - ARIZ 226	A1 - ARIZ 232
D - ARIZ 226	AD1 - ARIZ 246

WEIGHTS RETAINED	%RET	%PASS
3"		
2 1/2"		
2"		
1 1/2"		
1"		
3/4"		
1/2"		
3/8"		
1/4"		
#4		
- #8		
Total		

IF TOTAL SAMPLE IS WASHED:

NWASHED WT. = _____
 ASHED WT. = _____
 LUTRIATION = _____

DRY WT. OF -#4 SPLIT		FINE FACTOR	
WEIGHTS RETAINED	%RET	%PASS	
#8			
#10			
#16			
#30			
#40			
#50			
#100			
#200			
-#200			
Total			
Elutriation			

Dry Weight

MISCELLANEOUS TESTS			

NOTE: Input decimal point as needed for results on miscellaneous tests.

MISC. TEST CODES		
01	Soluble Salts	ARIZ 237
02	Organic Impurities	T 71
03	Sodium Sulfate Soundness	T 104
04	Swell	D 4546
05	Shear	D 3080
06	Consolidation	D 2435
07	% Carbonates	ARIZ 238
08	% Cement	
09	% Lime	
11	Unit (loose) Weight	T 19
13	Permeability	T 215
14	Freeze- Thaw	T 136
15	CBR	T 193
16	Flakiness index	ARIZ 233
17	Fractured C.A. Particles	ARIZ 212
18	Unconfined Compression	T 208
19	Triaxial Shear	T 234
20	Dry Unit Weight	
21	Organic Content	T 267

MATERIALS SURVEY CODES

INVESTIGATIVE MODE CODES	MATERIAL DESCRIPTION CODES
01 Backhoe	01 Basalt (Malpais)
02 D&S - Backhoe	02 Cinders
03 D&S - Backhoe - Fines wasted	03 Andesite or rhyolite
04 Backhoe - Fines wasted	04 Tuff or compacted ash
05 Face Sample - Backhoe	05 Diabase
06 Backhoe - Crushed	06 Granite
07 D&S - Backhoe - Crushed	07 Disintegrated (Decomposed) Granite
08 D&S - Backhoe - Fines wasted - Crushed	08 Slate
09 Backhoe - Fines wasted - Crushed	09 Schist
10 Face Sample - Backhoe - Crushed	10 Quartzite
	11 Shale
21 Hand shovel	12 Siltstone
22 D&S - Hand shovel	13 Sandstone
23 D&S - Hand shovel - Fines wasted	14 Conglomerate
24 Hand shovel - Fines wasted	15 Limestone
25 Face Sample - Hand shovel	16 Chert (Flint)
26 Hand shovel - Crushed	17 Caliche
27 D&S - Hand shovel - Crushed	20 Sand and gravel, with cobbles or boulders.
28 D&S - Hand shovel - Fines wasted - Crushed	21 Silty-Sand and gravel, with cobbles or boulders.
29 Hand shovel - Fines wasted - Crushed	22 Clayey-Sand and gravel, with cobbles or boulders.
30 Face Sample - Hand shovel - Crushed	23 Sand and gravel
	24 Silty-Sand and gravel
35 2" Drill hole	25 Clayey-Sand and gravel
	26 Sand
41 4" Auger	27 Silty-Sand
42 4" Auger - Fines wasted	28 Clayey-Sand
43 4" Auger - Crushed	29 Sandy Silt
44 4" Auger - Fines wasted - Crushed	30 Silt
	31 Clayey Silt
50 4 1/2" Drill hole	32 Clay or silty-clay, gravelly
	33 Clay or silty-clay, sandy
55 6" Auger	34 Clay or silty-clay
56 6" Auger - Fines wasted	35 Clay
57 6" Auger - Crushed	
58 6" Auger - Fines wasted - Crushed	
60 8" Auger	
61 8" Auger - Fines wasted	
62 8" Auger - Crushed	
63 8" Auger - Fines wasted - Crushed	
70 2' Square Jackhammer Sample	
71 4" Core	
72 6" Core	
73 8" Core	
74 12" Core	

$$\text{MOISTURE CONTENT} = \left[\frac{(\text{WET WT.}) - (\text{DRY WT.})}{(\text{DRY WT.})} \right] \times 100$$

$$= \left[\frac{(\quad) - (\quad)}{(\quad)} \right] \times 100$$

$$= \underline{\hspace{2cm}} \% \text{ (Record to the nearest 0.1 percent)}$$

MATERIAL CODES		RDWY CODES:
SG = SUBGRADE	CB = CEMENT TREATED BASE	NB = NORTH BOUND
SB= STRUCTURE BACKFULL	CS = CEMENT TREATED SUBGRADE	SB = SOUTH BOUND
NG = NATURAL GROUND	RR = RIP RAP	ETC
BM = BEDDING MATERIAL	BO = BORROW	RA = RAMP A
AB = AGGREGATE BASE	TS = TOP SOIL	RB = RAMP B
CM= COVER MATERIAL	BF = BACKFILL	ETC
MA = MINERAL AGGREGATE	AC = ASPHALTIC CONCRETE	FR = FRONTAGE ROAD
CA = COARSE AGGREGATE	BB = BITUMINOUS TREATED BASE	XR = CROSS ROAD
FA = FINE AGGREGATE	FC = ACFC	
AG = AGGREGATE	FM = ROAD MIX	
EM = EMBANKMENT	RC = RECYCLED ASPHALTIC CONCRETE	