



2011

**Product Data Sheet
Plant: Lawyers Road**

I. GEOLOGICAL FORMATION: ARCH MARBLE

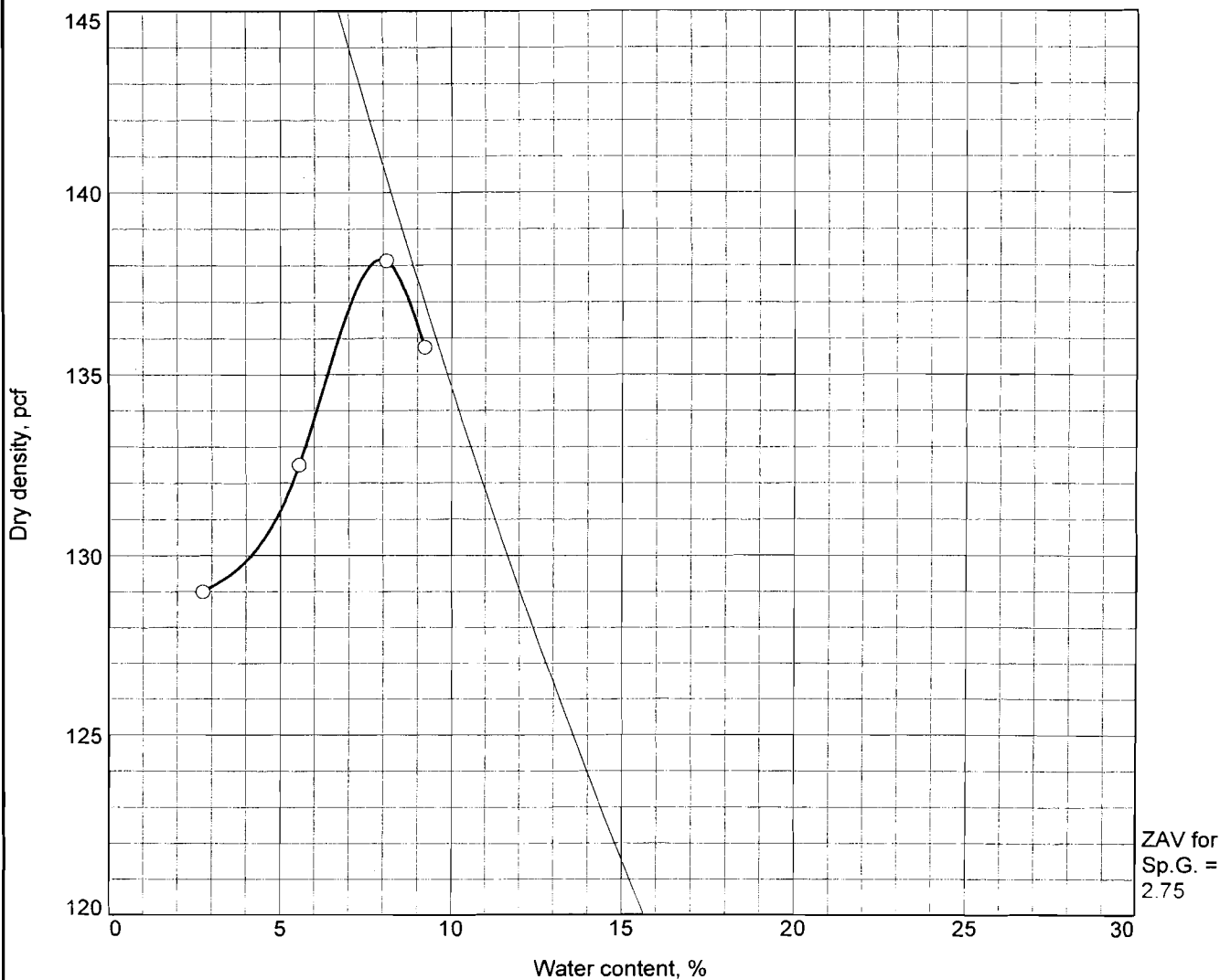
II. CHEMICAL ANALYSIS (March 2011) :

Silica	as SiO2	18.1%	Calcium	as CaO	39.7%
Iron	as Fe2O3	2.5%	Magnesium	as MgO	3.2%
Aluminum	as Al2O3	6.1%	Calcium Carbonate Equiv.	CCE	78.5%
Sulfur	as S	0.2%			

III. QUALITY DATA:

TEST	TEST DATE	Product											
		3	357	57	W 57	68	78	8/8P	9	Concrete Sand	Asphalt Sand	10	
* SPECIFIC GRAVITY *													
BULK (ASPHALT)	2/11	2.763	2.701	2.715	2.709	2.722	2.709	2.704	2.687	2.693	2.704	2.718	
BULK - SSD (CONCRETE)	2/11	2.773	2.711	2.723	2.718	2.731	2.722	2.723	2.711	2.722	2.733	2.736	
APPARENT	2/11	2.791	2.730	2.738	2.734	2.748	2.744	2.758	2.755	2.774	2.783	2.766	
% ABSORPTION	2/11	0.4%	0.4%	0.3%	0.4%	0.3%	0.5%	0.7%	0.9%	1.1%	1.1%	0.6%	
DRY RODDED (LBS/CUBIC FT)													
DRY RODDED (LBS/CUBIC FT)	2/11	97.6	96.8	99.2	99.6	100.6	95.3	96.1	94.8	102.2	103.5	110.9	
DRY RODDED (LBS/CUBIC YARD)	2/11	2635	2614	2678	2689	2716	2573	2595	2560	2759	2795	2994	
DRY RODDED (% VOIDS)	2/11	42.4%	42.9%	41.4%	41.3%	40.6%	43.4%	43.0%	43.2%	39.6%	38.0%	34.5%	
DRY RODDED (Kg/Cubic Meter)	2/11	1563	1551	1589	1595	1611	1527	1539	1519	1637	1658	1776	
VTM-5 % VOIDS IN STONE SAND	2/11									54.8%	54.4%	56.3%	
ASTM C1252 % VOIDS (METH B)	2/11									54.0%	53.5%	55.4%	
ASTM C1252 % VOIDS (METH C)	2/11									45.1%	43.2%	43.7%	
ASTM D4791 % F & E (3:1)	2/11	53.1%	37.0%	35.3%	30.2%	28.3%	41.5%	40.8%					
GRADING % LOSS													
GRADING A % LOSS	2/11	24.3%											
GRADING B % LOSS	2/11	20.1%											
GRADING C % LOSS	2/11	22.3%											
SOUNDNESS % LOSS													
SOUNDNESS % LOSS (Magnesium Sulfate)	2/11	0.3%	0.2%	0.4%	0.3%	0.4%	0.4%	0.4%	1.8%	2.3%	2.0%	1.6%	
SOUNDNESS % LOSS (Sodium Sulfate)													
Stone (lb/sq yd)													
Stone (lb/sq yd)													
Emulsion (gal/sq yd)													
Emulsion (gal/sq yd)													
* SUPERPAVE *													
ASTM C1252 % VOIDS (METH A)	2/11									48.9%	48.0%	50.1%	
AASHTO T 176 SAND EQUIVALENT	2/11									96	95	50	
ASTM D4791 % F & E (5:1)	2/11	10.1%	11.0%	3.8%	3.8%	5.3%	7.6%	9.5%					

COMPACTION TEST REPORT



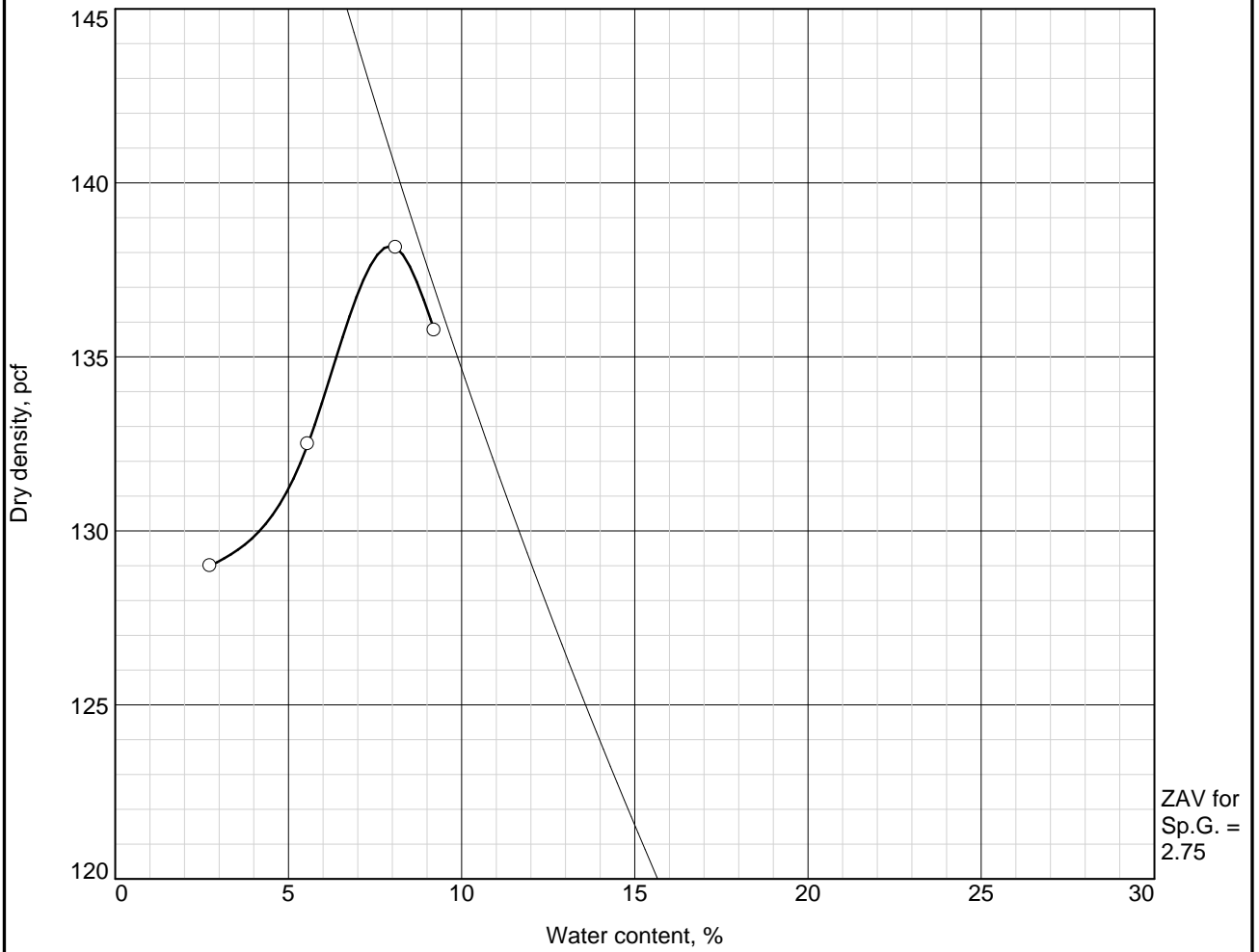
Test specification: AASHTO T 99 Method D Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
--	--	--	--	--	--	--	4.8	--

Assumed sample sp. gr. for ZAV: 2.75

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 138.2 pcf Optimum moisture = 7.9 %	21A aggregate
Project No. K62-063T Client: Boxley Materials Company Project: Laboratory testing ○ Sample Source: Lawyer's Road Depth: -- Sample No.: 107236	Remarks: April 17, 2009
FROEHLING & ROBERTSON, INC.	
Figure	

COMPACTION TEST



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