Location 1

5761 Copley Drive Suite 100 San Diego, CA 92111 p 858.223.8500



### LABORATORY TEST REPORT

Project Name:	County TO-07 Overlay Sou	Date:	2/8/2021			
Project Number:	20192329.007A				Date Sampl	ed: 2/5/2021
Sample Number:	21-SAN-00171		Sampled By	C. De La Torre		
Sample Type:	1/2" HMA Type A (PMAC)	PG58-34M (N	Truck Numb	ber: SDLUIS22		
Supplier:	CCA Lakeside				Load:	19
Location:	3768 Corral Canyon Road		Cum. Tons:	360.78		
	est Property nt, % by TM, CT 382	<b>A</b> 5.46	B -	с -	Average 5.46	<b>Requirement</b> 5.09 - 5.89
Bulk Specific G	avity, CT 308A	2.346	2.350	2.351	2.349	-
Maximum Spec	ific Gravity, CT 309	2.436			2.436	-
Air Voids, AASI	HTO CT 367, %	3.7	3.5	3.5	3.6	2.5 - 5.5
Hveem Stability	у, СТ 366	37	38	37	37	37 min.
HMA Moisture	Content, CT 370, %	0.00	0.00		0.00	1.00 max.
Remarks :			ATTACHN	IENT:		

Attachment 1 - HMA Test Data Sheet

Limitations: Pursuant to applicable codes, the results presented in this report are for the exclusive use of the client and the registered design professional in responsible charge. The results apply only to the samples tested. If changes to the specification were made and not communicated to Kleinfelder, Kleinfelder assumes no responsibility for pass/fail statements (meets/did not meet), if provided. This report may not be reproduced, except in full, without written approval of Kleinfelder.



### HMA TEST DATA SHEET

		M				
Bulk Speci	fic Gravity	(CT 308A)				
Location:		3768 Corral Canyon Road		Cu	m. Tons:	360.78
Supplier:		CCA Lakeside		Lo	ad:	19
Sample Type	e:	1/2" HMA Type A (PMAC) PG58-34	M (Mix #2121	Tr	uck Number:	SDLUIS22
Sample Num	nber:	21-SAN-00171		Sa	mpled By:	C. De La Torre
Project Num	ber:	20192329.007A		Da	te Sampled:	2/5/2021
Project Nam	e:	County TO-07 Overlay South FY 19-20 -	#1023466	Da	te:	2/8/2021

Sample	Height in.	N	lass , grams	6	F		Theor. Max. Sp.	Air Voids
Mark	0	А	D	Ш		Gmb	Gr. Gmm	Va, %
A	2.49	1200.0	1221.5	686.1	0.9	2.346	2.436	3.7
В	2.48	1200.2	1224.3	686.8	0.9	2.350	2.436	3.5
С	2.48	1200.9	1224.1	687.6	0.9	2.351	2.436	3.5
Average	2.48					2.349		3.6

Weight of dry sample in air, g А

Weight of coated dry sample D

Weight of coated dry sample in water, g Specific gravity of paraffin Е

F

Asphalt Content (CT 382) Temperature, C 482							
3068.8							
4851.5							
4744.9							
106.6							
5.98							
0.52							
5.46							
tion (CT 38	2)						
-	-						
1	2						
482	482						
59	73						
3068.7	3077.6						
4658.1	4649.1						
4564.1	4556.4						
94.0	92.7						
5.91	5.90						
5.39	5.39						
0.52	0.51						
0.52							
avity (CT 30	9)						
1							
1856.4							
7352.9							
8447.1							
2.436							
	T 382) 482 56 3068.8 4851.5 4744.9 106.6 5.98 0.52 5.46 tion (CT 38: 1 482 59 3068.7 4658.1 4564.1 94.0 5.91 5.39 0.52						

HMA Moisture Content (CT 370)							
	Sample A	Sample B					
1st Cycle	510.1	522.9					
2nd Cycle	510.1	522.9					
3rd Cycle	510.1	522.9					
4th Cycle	510.1	522.9					
Moisture							
Content:	0.00	0.00					
Averag	ge Moisture Conte	nt (%):	0.0				

Hveem Stability (CT 366)							
Load, lbs	A	В	С				
500	6	6	6				
1000	9	8	9				
2000	16	13	15				
3000	26	23	24				
4000	39	35	36				
5000	50	48	49				
6000	66	62	63				
Disp'ment	2.66	2.68	2.75				
Height, in.	2.49	2.48	2.48				
S- Value	37	38	37				
Corrected	37	38	37				
Average	37						

Gser = (Pmm - Pbr) / (Pmm/Gmmr- Pbr/Gbr)

Gser	Eff. Sp. Gr. of agg in RAP					
Gmmr	Theor. max sp. Gr. of RAP mix					
Pbr	Asphalt Binder of RAP % by Total Mix					
Gbr	Sp. Gr. of Binder = 1.02					
Pmm =	100					

Asphalt Content Equation: Corrected Binder = Uncorr. Binder - C.F.

5761 Copley Drive Suite 100 San Diego, CA 92111 p 858.223.8500



### LABORATORY TEST REPORT

Project Name:	County TO-07 Overlay Sou	Date:	2/8/2021			
Project Number:	20192329.007A				Date Sampl	ed: 2/5/2021
Sample Number:	21-SAN-00171		Sampled By	C. De La Torre		
Sample Type:	1/2" HMA Type A (PMAC)	PG58-34M (N	Truck Numb	ber: SDLUIS22		
Supplier:	CCA Lakeside				Load:	19
Location:	3768 Corral Canyon Road		Cum. Tons:	360.78		
	est Property nt, % by TM, CT 382	<b>A</b> 5.46	B -	с -	Average 5.46	<b>Requirement</b> 5.09 - 5.89
Bulk Specific G	avity, CT 308A	2.346	2.350	2.351	2.349	-
Maximum Spec	ific Gravity, CT 309	2.436			2.436	-
Air Voids, AASI	HTO CT 367, %	3.7	3.5	3.5	3.6	2.5 - 5.5
Hveem Stability	у, СТ 366	37	38	37	37	37 min.
HMA Moisture	Content, CT 370, %	0.00	0.00		0.00	1.00 max.
Remarks :			ATTACHN	IENT:		

Attachment 1 - HMA Test Data Sheet

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### HMA TEST DATA SHEET

		M				
Bulk Speci	fic Gravity	(CT 308A)				
Location:		3768 Corral Canyon Road		Cu	m. Tons:	360.78
Supplier:		CCA Lakeside		Lo	ad:	19
Sample Type	e:	1/2" HMA Type A (PMAC) PG58-34	M (Mix #2121	Tr	uck Number:	SDLUIS22
Sample Num	nber:	21-SAN-00171		Sa	mpled By:	C. De La Torre
Project Num	ber:	20192329.007A		Da	te Sampled:	2/5/2021
Project Nam	e:	County TO-07 Overlay South FY 19-20 -	#1023466	Da	te:	2/8/2021

Sample	Height in.	N	lass , grams	6	F		Theor. Max. Sp.	Air Voids
Mark	0	А	D	Ш		Gmb	Gr. Gmm	Va, %
A	2.49	1200.0	1221.5	686.1	0.9	2.346	2.436	3.7
В	2.48	1200.2	1224.3	686.8	0.9	2.350	2.436	3.5
С	2.48	1200.9	1224.1	687.6	0.9	2.351	2.436	3.5
Average	2.48					2.349		3.6

Weight of dry sample in air, g А

Weight of coated dry sample D

Weight of coated dry sample in water, g Specific gravity of paraffin Е

F

Asphalt Content (CT 382) Temperature, C 482							
3068.8							
4851.5							
4744.9							
106.6							
5.98							
0.52							
5.46							
tion (CT 38	2)						
-	-						
1	2						
482	482						
59	73						
3068.7	3077.6						
4658.1	4649.1						
4564.1	4556.4						
94.0	92.7						
5.91	5.90						
5.39	5.39						
0.52	0.51						
0.52							
avity (CT 30	9)						
1							
1856.4							
7352.9							
8447.1							
2.436							
	T 382) 482 56 3068.8 4851.5 4744.9 106.6 5.98 0.52 5.46 tion (CT 38: 1 482 59 3068.7 4658.1 4564.1 94.0 5.91 5.39 0.52						

HMA Moisture Content (CT 370)							
	Sample A	Sample B					
1st Cycle	510.1	522.9					
2nd Cycle	510.1	522.9					
3rd Cycle	510.1	522.9					
4th Cycle	510.1	522.9					
Moisture							
Content:	0.00	0.00					
Averag	ge Moisture Conte	nt (%):	0.0				

Hveem Stability (CT 366)					
Load, lbs	A	В	С		
500	6	6	6		
1000	9	8	9		
2000	16	13	15		
3000	26	23	24		
4000	39	35	36		
5000	50	48	49		
6000	66	62	63		
Disp'ment	2.66	2.68	2.75		
Height, in.	2.49	2.48	2.48		
S- Value	37	38	37		
Corrected	37	38	37		
Average	37				

Gser = (Pmm - Pbr) / (Pmm/Gmmr- Pbr/Gbr)

Gser	Eff. Sp. Gr. of agg in RAP
Gmmr	Theor. max sp. Gr. of RAP mix
Pbr	Asphalt Binder of RAP % by Total Mix
Gbr	Sp. Gr. of Binder = 1.02
Pmm =	100

Asphalt Content Equation: Corrected Binder = Uncorr. Binder - C.F.



### DAILY FIELD REPORT

SM

4-15-21

Materials Lab

Project Title Overlay South	Job No. 1023466
Project Location Bonth-Gorcal Cyn	Date 4-14-21 9-5-2 Page of /
County Inspector M. Chihwarp	Field Technician JM
General / Subcontractor ArP	Foreman
Observation / Testing of Acovaria	
Equipment / Method of Compaction 7 vibe role	
Arrival Departure	7 Time Charged
Weather Conditions partly dear lelof	
Other Pertinent Conditions	
Description of Work Inspection	
Y2" PMAC Type A 58-34M #21	2/24/15 plant to parter and
comparted isin dral drim vile	rollers and PTR. No samples
collected today in field by QC.	Fest conducted produced min 95%. RC.
Inspector requested moisture check	due to areas pumping. Maisture
	in confucted resulted in 14.2%.
moisture. Report reported.	to inspector.
and the second	
The second se second second s second second se	
and a support of the second	
Vehicles and Equipment Used	
	na seren na antine de la constante de la const La constante de la constante de
For test results(s) see "Request For and Report of Compact	ion Tests" (Form 46)
home to be addressed at next site visit	e et au de l'altre de la constant d
<ul> <li>A state of the second state of th</li></ul>	
hult	4-15-21
County Inspector/Superintendent Signature	Date
Annual mehonomonioning indus cilingrate	Dare

White - Materials Lab Yellow - County Inspector Pink - Contractor

Location 2



## DAILY FIELD REPORT

Materials Lab

Project Title 19-20 averlay Sath	Job No. 1023466
Project Location Janui	Date 4//6/2021 Page of 1
County Inspector	Field Technician 5. Anderson
General / Subcontractor	Foreman
Observation / Testing of Ac compaction	
Equipment / Method of Compaction	
Arrival Departure	Time Charged
Weather Conditions Smary, Clear, 68	E
/	
Other Pertinent Conditions	
Description of Work Inspection	
	confaction testing of 1/2" PMac.
	8-342 with F. BRR Being Roduced
13 30-JAM and 12 Pract 33	- stri CIM F. 1922 ISE. OF NODICED
	Men Myltiple tests at veriors
Locations on skyline T	TUCK Trail, Alldest's perFormed
	initian requirement of 95%.
compaction, samples of the	
	Mail Samples were Braght Back
to campy Materials LaB	For Furture testing, was upare
to Locate REFOR signiture.	and hap NO cell service to cell.
······································	
a de la companya de la contra de	
a di tana mangana na ma	
والمحافظ والمتحافظ والمحافظ	
	4
Vehicles and Equipment Used	
For test results(s) see "Request For and Report of Com	paction Tests" (Form 46)
nems to be addressed at next site visit	
	<b>l</b>
	4/6/2021
County Inspector/Superintendent Signature	Date
Vhite - Materials Lab Yellow - County Inspector Pink - Contractor	

# COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS MATERIAL TESTING LABORATORY



# CALTRANS TEST 375 - DENSITY AND RELATIVE COMPACTION OF IN-SITU ASPHALT CONCRETE

PRO	PROJECT: 19-20 OLODAY South	15		TESTED BY:	$\mathbb{N}$	Andertan	DATE: 4/6	(6/202)		NUCLEAR DEVICE:	DEVICE: /	ngrea
				LOT NUMBER:			LIFT THICKNESS:	KNESS:		Model & ID: #	ンキー	
PRO	PROJECT NUMBER: 10 2 3466			LANE NUMBER:	ABER:		DEPTH US	DEPTH USED: 13.5.		CALIB. DATE:	ΤË	
Nuc.	Nuc. Test No.:			LIFT NUMBER:	BER:	Mix Type:	Mix Type: 论, 小人, 公共, 剧ant: CC舟	Blant: CCH	- 4.5	(A) STD. COUNT:	OUNT:	
	TE	ST ARE	<b>TEST AREA LIMITS</b>					D NOTES AND	CA	<b>DNS: (use bac</b>	k tor additional	note)
(B) S	(B) START:			(D) LENGTH (C-B):	[H (C-B):		sty -	SKYI: NE TRUCK	ruch t	1:23		
ц С)	(C) FINISH:			(E) LANE WIDTH:	VIDTH:							
	COLUMN			RAN	RANDOM NUMBER	IBER		TABLE #			BLOCK #	
( <u></u> )	LEFT (Longitudinal Location)	(uo										
Ĥ	RIGHT (Transverse Location)	on)	21-367	21-368	21-369	21-370	12-1371	21-772	21-377			
	TEST SITE LOCATIONS		4	8	9	4	S	9	~		6	10
Ę	Longitudinal Distance from Start		1245	1,207/	215.20		250'65 C	16390	300,60			Γ
•	D x G ( round up to whole number)	ler)			111		- inter	SKNING	2011:12			
(r)	STATION (I+B)		H).	14:	न्त.	II.	- <del>1</del> 41	404.44	124-14-1			
N.	Transverse Distance from Edge		2,502		4. Even	4. Eren	3 ferrar	3'Ferr	wasch			
(x.)	E x H (round up to whole number)	er)	Carter	center	center	cardel	Central	center	contec	, -		
U G	DENSITY (clock (control to	a	142.6	141.6	142.7	143.7	139.3	139.7	142.8			
ŝ	DEIVSITIF (g/cc) (routid to nearest 0.010/cc)	q	b /42.6	141.6	142.7	143.7	139.3	139.7	142.8			
		avg.	142.6	141.6	142.7	143.7	139,3	139.7	142.8			
	Relative Compaction (%)		9-7-1.	96%	97.1.	1.8 5	95%	954	97%			
(J	LEFT (Longitudinal Location)											
Ĥ)	RIGHT (Transverse Location)											
	TEST SITE LOCATIONS		11	12	13	14	15	16	17	18	19	20
, KV	Longitudinal Distance from Start											
<b>(</b> ,,)	D x G ( round up to whole number)	er)										
(r)	STATION (I+B)											
	Transverse Distance from Edge											
	E x H (round up to whole number)	r)	-			-						
	DENSITY (d/cc) (round to	a										
<u> </u>		P										
		avg.										
	Relative Compaction (%)											
₹ () () ()	(O) Average In-Place Density (all site), g/cc	g/cc							H.		0 511	2.0
5 Ç	(P) Conversion Factor (device to cores) (O) Corrected In-Place Density (O± P) a/cc	clo					Laborato	ory Test Ma:	Laboratory Test Maximum Density, g/cc	sity, g/cc	14 1.0 7.2	Y.C.K
) デ	חופרופת ווודו ומנים בפוומוא וכד דווי	2					•	Jelalive Col	Helative Compaction, %		/	•/•



Twining, Inc. - San Diego Lab 15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424

Daily F	ield	Report				Report No: DFR:	
		•				Date of Issue: 04/14/202	1 Issue No:
Customer:			ors (Lehigh Hanson)			Project No: 200638.2	
		Ponderosa Avenue,	Suite C			Permit No:	
_		iego, CA 92123				OSHPD:	
Project:			halt Concrete Overlay South			DSA File #:	
		iego County Roads iego, CA				DSA AP #:	
Distribution:						1	
Jurisdiction:		y of San Diego				Approved Signatory: Andre	ew Suarez
Test Date:	obunt		221	Increatory	lor		
Inspection N		Friday, April 9, 2	JZT	Inspector:	108	se Franco-Casas	
Contractor:	NO		nineering				
Contractor:ATP General EngineeringEquipment Obsv.:a) Mechanical broom, b) Bear Cat CRC distr		ributor truck c)	Catin	aver d) Cat CB54B dua	l smooth drums		
Equipment	0031.		ctor, e) Dynapac CC4200 V				
Time Arrived	d:	7:00 AM	Time Departed:	3:15 PM		Time on Site:	8.25 Hrs
Lunch Start	:	11:15 AM	Lunch End:	11:45 AM		Travel Time:	2 Hrs
Mileage:		90.0	Weather:	Sunny			
Types of T	esting /	Observations					
Asphalt - F	ield Den	sity Testing					
Referenced	d Docur	ments					
Observatio			_ Reason for Travel:_Trans	port of CPN pu	cloar		Ailos to Johsito: 45
Miles from Jo	obsite:_4	5 Travel to Jobs	ite (start):_6:00am Trave end):_4:15pm Expenses:	el to Jobsite (en	d):_7:	:00am Travel from Job	osite
ASPHALT - F	ם ח דו	ENSITY TESTING					
			ar from the San Diego offic	e.			
On site as re	quested	to provide AC com	paction test for the asphalt	concrete 2" ove	erlay	at <mark>Skyline Truck (West b</mark>	<mark>ound</mark> ) in Jamul, Ca
		•	o discuss the scope of worl	•			
			the road, then the tack coa laced the HMA 23412305//3				
-			paver, initial breakdown pe				
			200 roller, and final rolling				iatery compactor,
			a CPN MC-1DR-P Portapi	robe nuclear ga	uge, i	these AC density test me	et 95% project
		ersonnel was notifie					
		•	as follows: I) HMA 2341230 I) HMA 21212415// 1/2" HM		•••		21212415F// 1/2"
		<b>C C C C C C C C C C</b>	,,				
Ĩ							



Twining, Inc. - San Diego Lab

15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424

Daily F	ield Report	Report No: DFR:W02-21-01402-01           Date of Issue: 04/14/2021         Issue No: 1
Customer:	ATP Engineering Contractors (Lehigh Hanson)	Project No: 200638.2
	4211 Ponderosa Avenue, Suite C	Permit No:
	San Diego, CA 92123	OSHPD:
Project:	County of San Diego, Asphalt Concrete Overlay South	DSA File #:
	San Diego County Roads	DSA AP #:
	San Diego, CA	
Distribution:		antest
Jurisdiction:	County of San Diego	Approved Signatory: Andrew Suarez

All inspections based on minimum of 4 hours and over 4 hours - 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.



Jose Franco-Casas, Inspector/Technician

### Remarks:

This report will be distributed to architect, engineer, client, and governing jurisdiction (e.g. DSA) as required by applicable codes and project documents.

Certificate of Compliance		
The Work 🗹 Was 🗌 Was Not	The Work Inspected 🕢 Met 🗌 Did Not Meet	Material Sampling
inspected in accordance with the requirements of the County of San Diego approved documents	the requirements of the County of San Diego approved documents	was not performed

All Reports Remain The Property of Twining, Inc. Authorization For The Publication Of Our Reports, Conclusions, Or Extracts From Or Regarding Them is Reserved Pending Our Written Approval As A Mutual Protection To Clients, The Public and Ourselves

Twining, Inc. - San Diego Lab 15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Exercise 2426 6404

		Fax: 562.426.6424
Asphalt	Nuclear Density Report	Report No: ND:W02-21-01402           Date of Issue: 4/14/2021         Issue No: 1
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdictior Distributior	ւ: County of San Diego ։	Approved Signatory: Andrew Suarez (Branch Manager)

Testing Details			
Tested By:	Jose Franco-Casas	Date Tested:	4/9/2021
Plant:	Lakeside	Gauge Make/Model:	
Method of Measurement:	Backscatter	Density Standard Count	: 39577
Gauge Serial:		Moisture Standard Coun	<b>t:</b> 8245
Calibration Date:		Weather:	Sunny
Calibration Source:			

Tes	t Result	s										ASTM	D 2950
Test No		Station	Offset (ft)	From	Mix	Lift	Layer Thickness (in)	Count Rate	MLD (Ib/ft³)	In Situ Density (Ib/ft³)	Comp (%)	Limit (%)	Results
Appr	ox.Test Lo	cation: J	lamul, Ca.				. ,			. ,			
1	17056 Skyline Truck Trail	NA	8.0	Centerline	23412305 3/4" HMA TYPE A	1	4.0	1 min.	148.60	140.70	95	≥95	Р
2	3210A Skyline Truck Trail	NA	10.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	146.60	138.70	95	≥95	Ρ
3	3210B Skyline Truck Trail	NA	6.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	146.60	138.90	95	≥95	Р
4	3245 Skyline Truck Trail	NA	8.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	146.60	139.00	95	≥95	Р
5	Skyline Truck Trail	NA	8.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	146.60	138.80	95	≥95	Р
6	Skyline Truck Trail	NA	8.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	146.60	141.70	97	≥95	Р
7	Skyline Truck Trail	NA	6.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	146.60	139.20	95	≥95	Р

Asr		/INI luclear l	<b>NG</b> Density F	Report					15950 Beri San Diego Ph: 858-97 Fax: 562.4		Drive, Suite	H ND:W02-	21-01402
	omer:	ATP Engine 4211 Ponde San Diego, County of S	eering Contra erosa Avenue CA, 92123 an Diego, As County Roads	ctors (Lehig , Suite C phalt Conc		' Sout	'n			No.: 20063 Io.: #:			ssue No: 1
	sdiction: ribution:	County of S	an Diego						Approved Sid	gnatory: Andrew S	Suarez (Branch	Manager)	a
<mark>Tes</mark> Test No	<mark>t Resu</mark> Road		Offset (ft)	From	Mix	Lift	Layer Thickness (in)	Count Rate	MLD (lb/ft <sup>3</sup> )	In Situ Density (Ib/ft³)		- /	D 2950 Results
Appr	ox.Test	Location:	Jamul, Ca.				()			()			
8	16887A Skyline Truck Tra	e NA	10.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	146.60	138.90	95	≥95	Р
9	16887A Skyline Truck Tra	e NA	6.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	146.60	140.40	96	≥95	Р
10	Skylin Truck Tra		8.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	146.60	138.80	95	≥95	Р
11	Skylin Truck Tra		4.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	146.60	138.70	95	≥95	Р
12	Skylin Truck Tra	INA	8.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	146.60	138.60	95	≥95	Р
13	17091A Skyline Truck Tra	e NA	10.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	146.60	140.10	96	≥95	Р
14	17091B Skyline Truck Tra	e NA	8.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	146.60	140.00	95	≥95	Р
15	17056A Skyline Truck Tra	e NA	8.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	146.60	138.90	95	≥95	Р
16	17056E Skyline Truck Tra	e NA	6.0	Centerline	21212305F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	146.60	139.50	95	≥95	Р

		/ININ luclear D	_	Panart					15950 Ben San Diego Ph: 858-97 Fax: 562.4	Re	Drive, Suite		21-01402
-	omer:	ATP Enginee	ering Contra	- ctors (Lehig	gh Hanson)				Project	sue: 4/14/202 No.: 20063		: 	ssue No: 1
Proje	ect:	San Diego, C County of Sa San Diego C San Diego, C	CA, 92123 In Diego, As ounty Roads	phalt Conc	rete Overlay	/ Sout	th		Permit N OSHPD: DSA File DSA AP	e#:			
	sdiction: ribution:	County of Sa	n Diego						Approved Sig	gnatory: Andrew S	Suarez (Branch	Manager)	9
т	+ Deer	14.0										AOTM	
Test No		Station	Offset (ft)	From	Mix	Lift	Layer Thickness (in)	Count Rate	MLD (lb/ft³)	In Situ Density (Ib/ft³)	Comp (%)	Limit (%)	D 2950 Results
Appr	ox.Test	Location:	Jamul, Ca.		1					1	1		
17	Skylin Truck Tra		10.0	Centerline	21212305F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	146.60	138.70	95	≥95	Р
18	17071 Skyline Truck Tra		4.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	146.60	138.60	95	≥95	Р
19	17081 Skyline Truck Tra		6.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	146.60	139.60	95	≥95	Р
20	Skylin Truck Tra		4.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	147.50	139.40	95	≥95	Р
21	17081 Skyline Truck Tra		4.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	147.50	140.80	95	≥95	Р
22	17081 Skyline Truck Tra	e NA	8.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	147.50	139.70	95	≥95	Р
23	Skylin Truck Tra	e NA ail	8.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	147.50	139.80	95	≥95	Р
24	Skylin Truck Tra		4.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	147.50	141.40	96	≥95	Р
25	Skylin Truck Tra		6.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	147.50	143.40	97	≥95	Р
26	Skylin Truck Tra		6.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	147.50	141.90	96	≥95	Р
27	Skylin Truck Tra		4.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	147.50	139.50	95	≥95	Р

	тw	INI	NG						15950 Ber	26.6424	Drive, Suite	Η	
Asp	phalt Nu	uclear D	ensity F	Report					Date of Iss	<b>Re</b> sue: 4/14/202		ND:W02-	21-01402 ssue No: 1
Cust Proje	4: S ect: C S	211 Ponder an Diego, C ounty of Sa	n Diego, As ounty Roads	, Suite C phalt Conci		/ Sout	h		Project Permit N OSHPD: DSA File DSA AP	e #:	8.2		
	sdiction: C ribution:	ounty of Sa	in Diego						Approved Si	gnatory: Andrew S	Guarez (Branch	Manager)	8
Tes	t Resul	ts							<u></u>			ASTM	D 2950
Test No		Station	Offset (ft)	From	Mix	Lift	Layer Thickness (in)	Count Rate	MLD (lb/ft³)	In Situ Density (Ib/ft³)	Comp (%)	Limit (%)	Results
Аррі	rox.Test L	ocation: 、	Jamul, Ca.										
28	17368A Skyline Truck Trai	NA	6.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	147.50	139.60	95	≥95	Р
29	17368A Skyline Truck Trai	NA	6.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	147.50	140.70	95	≥95	Р
30	Skyline Truck Trai	I NA	6.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	147.50	139.60	95	≥95	Р
31	Skyline Truck Trai	I NA	6.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	147.50	139.50	95	≥95	Р
32	Skyline Truck Trai	NA	4.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	147.50	139.70	95	≥95	Р
33	Skyline Truck Trai	NA	6.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	147.50	139.90	95	≥95	Р
34	Skyline Truck Trai		6.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	147.50	140.10	95	≥95	Р
35	Skyline Truck Trai		6.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	147.50	139.80	95	≥95	Р



Contact: Patrick Terrell Quality Control Manager II Phone: (858) 602-5474 Fax: (951) 684-3186

Project:	San D	Diego Cour	ty Overlay N	lorth	Date Sampled:	4/8/2021
Material Description:		Combin	ed RAP		Time Sampled:	605am
Material Source:		CCA L	akeside		Sampled By:	I. Montano
Sample Location:		Belt	Cut		Date Tested:	4/8/2021
Lot #:	Sublot #:		Tons Out:		Tested By:	I. Montano

### **RECYCLED ASPHALT PRODUCT**

### MOISTURE CONTENT OF RAP (CTM 370)

Wet Weight: 3222.1 Dry Weight:	3146.5	RAP Moisture:	2.4%
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### SIEVE ANALYSIS OF POST IGNITION OVEN RAP (CTM 202)

Basket Mass	287	79.6	Basket + Sample		446	0.5	HMA San	nple Mass	158	0.9
Basket + Sample	Basket + Sample Burned		60.9	Burned A	Agg Mass	148	31.3	Approx. O	il % TWM	5.04

Sie	ve Size	Weight Retained (grams)	Percent Retained (%)	Percent Passing (%)	Correction Factor (%)	Corrected Percent Passing
2"	(50mm)	0	0.0%	100.0%	0.0	100.0%
1-1/2"	(37.5mm)	0	0.0%	100.0%	0.0	100.0%
1"	(25mm)	0	0.0%	100.0%	0.0	100.0%
3/4"	(19mm)	0	0.0%	100.0%	0.0	100.0%
1/2"	(12.5mm)	30.3	2.0%	98.0%	+0.2	98.2%
3/8"	(9.5mm)	124.4	8.4%	91.6%	+0.6	92.2%
#4	4.75mm)	365.5	24.7%	75.3%	-0.8	74.5%
#8	(2.36mm)	119.5	42.5%	57.5%	+0.5	58.0%
#16	(1.18mm)	211.2	56.1%	43.9%	-0.7	43.2%
#30	(600µm)	283.1	66.8%	33.2%	-0.6	32.6%
#50	(300µm)	356.8	77.8%	22.2%	-0.2	22.0%
#100	(150µm)	413	86.1%	13.9%	+0.3	14.2%
#200	(75µm)	446.1	91.0%	9.0%	+0.5	9.5%
Mass	of #4 Split	506.3				=

Approved By:

atrick

Patrick Terrell Quality Control Manager II



Contact: Patrick Terrell Quality Control Manager II Phone: (858) 602-5474 Fax: (858) 513-0612

Project:		S	an Die	go Coun	ty Ove	rlay South		Date Sampled:	4/9/2021
Material Des	cription:	212	12415	1/2" H	MA-A	w/25% RA	P	Time Sampled:	900am
Material Sou	irce:			CCA La	akeside	9		Sampled By:	I. Montano
Sample Loca	ation:			Belt	Cut			Date Tested:	4/9/2021
Tons Out:		Load #		Lot #		Sublot #		Tested By:	I. Montano

### SIEVE ANALYSIS (CTM 202)

						Aggregate %	RAP %
Wet Weight:	5377.3	Dry Weight:	5284.3	% Moisture:	1.76%	75%	25%

									Specifi	cation
Sie	ve Size	Weight Retained	Percent Retained		x Agg %	RAP Pass	x RAP %	Total Percent Passing	Allow Tolera	
2"	(50mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1-1/2"	(37.5mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1"	(25mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
3/4"	(19mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	100	
1/2"	(12.5mm)	429	8.1%	91.9%	68.9%	98.2%	24.5%	93%	96 9	0-100
3/8"	(9.5mm)	1382.3	26.2%	73.8%	55.4%	92.2%	23.1%	78%	77 7	'1-83
#4	(4.75mm)	2563.8	48.5%	51.5%	38.6%	74.5%	18.6%	57%	55 4	8-62

Fine Agg Dry Weight:

514.4

										Spe	cification
Si	eve Size	Weight Retained	Percent Retained	Agg Pass	x #4	x Agg %	RAP Pass	x RAP %	Total Percent Passing		owable lerance
#8	(2.36mm)	118.3	23%	77%	40%	29.7%	58.0%	14.5%	44%	43	38-48
#16	(1.18mm)	226	44%	56%	29%	21.6%	43.2%	10.8%	32%	33	
#30	(600µm)	319.1	62%	38%	20%	14.7%	32.6%	8.2%	23%	22	17-25
#50	(300µm)	413.7	80%	20%	10%	7.6%	22.0%	5.5%	13%	13	
#100	(150µm)	452.7	88%	12%	6%	4.6%	14.2%	3.5%	8%	7	
#200	(75µm)	476.5	92.6%	7.4%	3.8%	2.8%	9.5%	2.4%	5.2%	4.4	2.4-6.4

### SAND EQUIVALENT (CTM 217)

Approved by:

atrick enel

Patrick Terrell Quality Control Manager II

Specimen Number	Sand Reading	Clay Reading	Sand Equivalent	
1	4.2	6.6	64	Specification
2	4.2	6.8	62	47
3	4.3	6.9	63	47
		Average	63	



Project:	San Diego County	Overlay Sou	uth	Date Sampled:	4/9/2021		
Міх Туре:	21212415 1/2" HM	A-A w/25%	RAP	Time Sampled:	950am	Load #:	3
Material Source:	CCA Lake	eside		Sampled By:	I. Montano		
Sample Location:	Truck Bed at Plant			Date Tested:	4/9/2021		
Ticket #:	1701253947	Tons Out:	54.9	Tested By:	I. Montano		

### ASPHALT BINDER CONTENT OF HMA BY THE IGNITION METHOD CALIFORNIA TEST METHOD 382

Calibration Information:									
Ignition Oven Identification:	Thermolyne NCAT Serial #: 0151796801150209								
Set Point Temperature from Calibration:	☑ 538°C								
Total ignition time from calibration (minutes):	46 - 56 minutes								
Asphalt Binder type and source:	PG 58-34 Holly								
Aggregate Source:	Hanson Aggregates, Vigilante Mine								
Correction Factor, CF (%):	0.45%								

287	1.4				
440	15.7				
153	4.3				
431	4317.6				
144	1446.2				
5.7	4%				
5.29%	5.59%				
% by Total Weight of Mix	% by Dry Weight of Agg				
	144 5.7 <b>5.29%</b>				

MIX MOISTURE, MC	0			
Target by TWM:	5.39%	Allowable Range	5.09 - 5.89	
Target by DWA:	5.70%	Allowable Range	5.36 - 6.26	

Form: CCA-T308 Rev. 1.1 9/29/2017

Approved By: Satrick, ener

Patrick Terrell - QC Manager II



Contact: Patrick Terrell Quality Control Manager II Phone: (858) 602-5474 Fax: (951) 684-3186

Project:	San I	Diego Coun	ity Overlay S	South	Date Sampled:	4/9/2021		
Material Description	n:	Combin	ied RAP		Time Sampled:	540am		
Material Source:		CCA L	akeside		Sampled By:	I. Montano		
Sample Location:	Sample Location: Belt Cut		Date Tested:	4/9/2021				
Lot #:	Sublot #:		Tons Out:		Tested By:	I. Montano		

### **RECYCLED ASPHALT PRODUCT**

### MOISTURE CONTENT OF RAP (CTM 370)

Wet Weight: 3222.1 Dry Weight:	3146.5	RAP Moisture:	2.4%
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### SIEVE ANALYSIS OF POST IGNITION OVEN RAP (CTM 202)

Basket Mass	287	79.6	Basket +	- Sample	446	0.5	HMA San	nple Mass	158	0.9
Basket + Sample	t + Sample Burned 436		60.9	Burned A	Agg Mass	gg Mass 1481.3		Approx. O	il % TWM	5.04

Sieve Size I -		Weight Retained (grams)	Percent Retained (%)	Percent Passing (%)	Correction Factor (%)	Corrected Percent Passing
2"	(50mm)	0	0.0%	100.0%	0.0	100.0%
1-1/2"	(37.5mm)	0	0.0%	100.0%	0.0	100.0%
1"	(25mm)	0	0.0%	100.0%	0.0	100.0%
3/4"	(19mm)	0	0.0%	100.0%	0.0	100.0%
1/2"	(12.5mm)	30.3 2.0% 98.0%		+0.2	98.2%	
3/8"	(9.5mm)	124.4	8.4%	91.6%	+0.6	92.2%
#4	4.75mm)	365.5	24.7%	75.3%	-0.8	74.5%
#8	(2.36mm)	119.5	42.5%	57.5%	+0.5	58.0%
#16	(1.18mm)	211.2	56.1%	43.9%	-0.7	43.2%
#30	(600µm)	283.1	66.8%	33.2%	-0.6	32.6%
#50	(300µm)	356.8	77.8%	22.2%	-0.2	22.0%
#100	(150µm)	413	86.1%	13.9%	+0.3	14.2%
#200	(75µm)	446.1	91.0%	9.0%	+0.5	9.5%
Mass	of #4 Split	506.3				-

Approved By:

atuck ene

Patrick Terrell Quality Control Manager II



**Contact: Patrick Terrell Quality Control Manager II** Phone: (858) 602-5474 Fax: (858) 513-0612

Project:		San Diego County Overlay South						Date Sampled:	4/9/2021
Material De	scription:	21212415 FIBER 1/2" HMA-A w/25% RAP					RAP	Time Sampled:	535am
Material So	urce:	CCA Lakeside						Sampled By:	I. Montano
Sample Loc	ation:	Belt Cut						Date Tested:	4/9/2021
Tons Out:		Load #		Lot #		Sublot #		Tested By:	I. Montano

### SIEVE ANALYSIS (CTM 202)

						Aggregate %	RAP %
Wet Weight:	5951.8	Dry Weight:	5863.4	% Moisture:	1.51%	75%	25%

									Speci	fication
Sie	ve Size	Weight Retained	Percent Retained		x Agg %	RAP Pass	x RAP %	Total Percent Passing		wable erance
2"	(50mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1-1/2"	(37.5mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1"	(25mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
3/4"	(19mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	100	
1/2"	(12.5mm)	418.3	7.1%	92.9%	69.6%	98.2%	24.5%	94%	96	90-100
3/8"	(9.5mm)	1385.4	23.6%	76.4%	57.3%	92.2%	23.1%	80%	77	71-83
#4	(4.75mm)	2847.5	48.6%	51.4%	38.6%	74.5%	18.6%	57%	55	48-62

Fine Agg Dry Weight:

507.7

										Spe	cification
Si	ieve Size	Weight Retained	Percent Retained	Agg Pass	x #4	x Agg %	RAP Pass	x RAP %	Total Percent Passing		owable lerance
#8	(2.36mm)	106.4	21%	79%	41%	30.5%	58.0%	14.5%	45%	43	38-48
#16	(1.18mm)	201	40%	60%	31%	23.3%	43.2%	10.8%	34%	33	
#30	(600µm)	317	62%	38%	19%	14.5%	32.6%	8.2%	23%	22	17-25
#50	(300µm)	420.4	83%	17%	9%	6.6%	22.0%	5.5%	12%	13	
#100	(150µm)	465.0	92%	8%	4%	3.2%	14.2%	3.5%	7%	7	
#200	(75µm)	480.6	94.7%	5.3%	2.7%	2.1%	9.5%	2.4%	4.4%	4.4	2.4-6.4

### SAND EQUIVALENT (CTM 217)

Specimen Number	Sand Reading	Clay Reading	Sand Equivalent	
1	4.3	6.9	63	Specification
2	4.2	6.7	63	47
3	4.4	7.1	62	47
		Average	63	

Approved by:

atrick enel

Patrick Terrell Quality Control Manager II



Project:	San Diego County	Overlay Sou	uth	Date Sampled:	4/9/2021			
Міх Туре:	21212415 FIBER 1/2"	HMA-A w/2	5% RAP	Time Sampled:	701am	Load #:	7	
Material Source:	CCA Lake	eside		Sampled By:	I. Montano			
Sample Location:	Truck Bed a	at Plant		Date Tested:	4/9/2021			
Ticket #:	1701253907 Tons Out: 133.85		133.85	Tested By:	I. Montano			

### ASPHALT BINDER CONTENT OF HMA BY THE IGNITION METHOD CALIFORNIA TEST METHOD 382

Calibration Information:								
Ignition Oven Identification: Thermolyne NCAT Serial #: 0151796801150209								
Set Point Temperature from Calibration:	⊠ 538°C □ 482°C □ 427°C							
Total ignition time from calibration (minutes):	46 - 56 minutes							
Asphalt Binder type and source:	PG 58-16 San Joaquin							
Aggregate Source:	Hanson Aggregates, Vigilante Mine							
Correction Factor, CF (%):	0.45%							

Ignition	Oven	Procedure
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	% by Total Weight of Mix	% by Dry Weight of Agg				
Corrected Asphalt Content AC = A - CF - MC (%):	5.60%	5.93%				
Raw Aspahlt Content, A = ( $(M_i - M_f) \div M_i$ ) x 100 (%):	6.0	05%				
Final Mass of Sample Aggregate, $M_2$ - $M_e$ , $M_f$ (g)	14	1472.0				
Mass of Sample + Basket after burn off, $M_2$ (g):	43:	4352.0				
Net Mass of of the Mixed Sample, $M_1$ - $M_{e_i}$ , $M_i$ (g):	150	66.8				
Mass of Mixed Sample + Basket, M <sub>1</sub> (g):	444	46.8				
Mass of Basket, M <sub>e</sub> (g):	288	2880.0				

	,		
Target by TWM:	5.39%	Allowable Range	5.09 - 5.89
Target by DWA:	5.70%	Allowable Range	5.36 - 6.26

Form: CCA-T308 Rev. 1.1 9/29/2017

Approved By: Satrick

Patrick Terrell - QC Manager II



Contact: Patrick Terrell Quality Control Manager II Phone: (858) 602-5474 Fax: (951) 684-3186

Project:		San D	San Diego County Overlay North			Date Sampled:	4/9/2021		
Material Description:		Combined RAP				Time Sampled:	540am		
Material S	ource:	CCA Lakeside				Sampled By:	I Montano		
Sample Lo	ocation:	Belt Cut				Date Tested:	4/9/2021		
Lot #:		Sublot #:		Tons Out:	20	Tested By:	I Montano		

### **RECYCLED ASPHALT PRODUCT**

### MOISTURE CONTENT OF RAP (CTM 370)

Wet Weight: 3222.1 Dry Weight:	3146.5	RAP Moisture:	2.4%
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### SIEVE ANALYSIS OF POST IGNITION OVEN RAP (CTM 202)

Basket Mass	287	<b>'</b> 9.6	Basket +	Sample	446	60.5	HMA San	nple Mass	158	0.9
Basket + Sample	Burned	436	60.9	Burned A	Agg Mass	148	31.3	Approx. O	il % TWM	5.04

Sie	ve Size	Weight Retained (grams)	Percent Retained (%)	Percent Passing (%)	Correction Factor (%)	Corrected Percent Passing
2"	(50mm)	0	0.0%	100.0%	0.0	100.0%
1-1/2"	(37.5mm)	0	0.0%	100.0%	0.0	100.0%
1"	(25mm)	0	0.0%	100.0%	0.0	100.0%
3/4"	(19mm)	0	0.0%	100.0%	0.0	100.0%
1/2"	(12.5mm)	30.3	2.0%	98.0%	+0.2	98.2%
3/8"	(9.5mm)	124.4	8.4%	91.6%	+0.6	92.2%
#4	4.75mm)	365.5	24.7%	75.3%	-0.8	74.5%
#8	(2.36mm)	119.5	42.5%	57.5%	+0.5	58.0%
#16	(1.18mm)	211.2	56.1%	43.9%	-0.7	43.2%
#30	(600µm)	283.1	66.8%	33.2%	-0.6	32.6%
#50	(300µm)	356.8	77.8%	22.2%	-0.2	22.0%
#100	(150µm)	413	86.1%	13.9%	+0.3	14.2%
#200	(75µm)	446.1	91.0%	9.0%	+0.5	9.5%
Mass	of #4 Split	506.3				

Approved By:



Contact: Patrick Terrell Quality Control Manager II Phone: (858) 602-5474 Fax: (858) 513-0612

Project:		San Diego County Overlay North				Date Sampled:	4/9/2021		
Material Des	scription:	234	12305	3/4" H	IMA-A	w/25% RA	νP	Time Sampled:	555am
Material Sou	urce:	CCA Lakeside				Sampled By:	I. Montano		
Sample Loca	ation:	Belt Cut				Date Tested:	4/9/2021		
Tons Out:		Load #		Lot #		Sublot #		Tested By:	I. Montano

### SIEVE ANALYSIS (CTM 202)

						Aggregate %	RAP %
Wet Weight:	5381.3	Dry Weight:	5306.3	% Moisture:	1.41%	75%	25%

									Specification
Sieve Size		Weight Retained	Percent Retained	Percent Passing	x Agg %	RAP Pass	x RAP %	Total Percent Passing	Allowable Tolerance
2"	(50mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	
1-1/2"	(37.5mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	
1"	(25mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	100
3/4"	(19mm)	114.8	2.2%	97.8%	73.4%	100.0%	25.0%	98%	98 93-100
1/2"	(12.5mm)	1553.6	29.3%	70.7%	53.0%	98.2%	24.5%	78%	75 69-81
3/8"	(9.5mm)	2331.7	43.9%	56.1%	42.0%	92.2%	23.1%	65%	62
#4	(4.75mm)	3288.8	62.0%	38.0%	28.5%	74.5%	18.6%	47%	46 39-53

Fine Agg Dry Weight:

506.7

										Spe	cification
Si	eve Size	Weight Retained	Percent Retained	Agg Pass	x #4	x Agg %	RAP Pass	x RAP %	Total Percent Passing		lowable lerance
#8	(2.36mm)	88.4	17%	83%	31%	23.5%	58.0%	14.5%	38%	34	29-39
#16	(1.18mm)	170.2	34%	66%	25%	18.9%	43.2%	10.8%	30%	25	
#30	(600µm)	284.8	56%	44%	17%	12.5%	32.6%	8.2%	21%	17	13-21
#50	(300µm)	398.3	79%	21%	8%	6.1%	22.0%	5.5%	12%	11	
#100	(150µm)	453.3	89%	11%	4%	3.0%	14.2%	3.5%	7%	6	
#200	(75µm)	474	93.5%	6.5%	2.5%	1.8%	9.5%	2.4%	4.2%	4.1	2.1-6.1

### SAND EQUIVALENT (CTM 217)

Specimen Number	Sand Reading	Clay Reading	Sand Equivalent		
1	4.0	6.7	60	Specification	
2	4.1	6.7	62	47	
3	4.0	6.5	62	47	
		Average	61		

Approved by:

Patrick Terrell Quality Control Manager II



Project:	San Diego County Overlay North			Date Sampled:	4/9/2	2021	
Міх Туре:	23412305 3/4" HM	A-A w/25%	RAP	Time Sampled:	631am	Load #:	1
Material Source:	CCA Lakeside			Sampled By:	I. Montano		
Sample Location:	Truck Bed at Plant		Date Tested:	4/9/2021			
Ticket #:	1701253900 Tons Out: 19.49		Tested By:	I. Mo	ntano		

### ASPHALT BINDER CONTENT OF HMA BY THE IGNITION METHOD CALIFORNIA TEST METHOD 382

Calibration Information:							
Ignition Oven Identification:	Thermolyne NCAT Serial #: 0151796801150209						
Set Point Temperature from Calibration:	☑ 538°C						
Total ignition time from calibration (minutes):46 - 56 minutes							
Asphalt Binder type and source:	PG 58-16 San Joaquin						
Aggregate Source: Hanson Aggregates, Vigilante Mine							
Correction Factor, CF (%): 0.58%							

### **Ignition Oven Procedure**

<mark>490</mark> 203	)2.3		
203			
	2030.5		
4796.2			
1924.4			
5.23%			
4.65%	4.87%		
	% by Dry Weight of Agg		
	l Weight of Mix		

MIX Moisture, MC	0		
Target by TWM:	5.03%	Allowable Range	4.58 - 5.48
Target by DWA:	5.30%	Allowable Range	4.80 - 5.80

Approved By:



Twining, Inc. - San Diego Lab 15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424

Daily F	ield	Report			Report No: DFR:W	
		ngineering Contractors (	Labiah Hanaan)		Date of Issue: 04/14/2021	Issue No: 1
Customer:		Ponderosa Avenue, Suite	<b>u</b> ,		Project No: 200638.2 Permit No:	
		iego, CA 92123			OSHPD:	
Project:		/ of San Diego, Asphalt (	Concrete Overlay South		DSA File #:	
110,000		iego County Roads	Sonoroto Ovonay Courr		DSA AP #:	
		iego, CA				
Distribution:						
					antst	
Jurisdiction:	County	y of San Diego			Approved Signatory: Andrew	w Suarez
Test Date:		Thursday, April 8, 202	21	Inspector: Jos	se Franco-Casas	
Inspection N	0.:		- <b>- i</b> - <b>-</b>			
Contractor:	hove	ATP General Engine	-	ibutor truck c) Cat p	aver, d) Cat CB44B vibrat	ony compactor o
Equipment C	050	,		· ·	ompactor, g) Deere 210L	• • •
Time Arrived	:	7:00 AM	Time Departed:	3:30 PM	Time on Site:	8.5 Hrs
Lunch Start:		11:15 AM	Lunch End:	11:45 AM	Travel Time:	2 Hrs
Mileage:		90.0	Weather:	Sunny		
Types of Te	sting /	Observations				
Asphalt - Fie	eld Dens	sity Testing				
Referenced	Docun	nents				
Observation	ns / Re	marks				
Jobsite:_45	_ Miles fi m Tra	rom Jobsite:_45 Trav	vel to Jobsite (start):_6:	00am Travel to Jo	auge, AC gear and AC sa obsite (end):_7:00am T nt Used: _CPN nuclear ga	ravel from Jobsite
ASPHALT - F	IELD DE	ENSITY TESTING				
On site as rec approximately started with th Lakeside Plar fiver AC Mix II Observe a me These mixes with a Cat CB As requested Sample Time Twining Lab. Conducted 30 requirements, Samples were Today asphal a) HMA 23412	uested betwee he const ht. For th D 21212 echanica were pla 7 vibrate sample 14:05 h AC cor ATP pe e transpet t concre 2305/ 3/	to provide AC density t en PM-1 and PM-2. Upo ruction of four digouts, ne digouts they utilized 2415F- 1/2" HMA 58-34 al broom sweeping each aced with a Cat paver, i ory roller, and final rollin d the HMA without fiber rs, AC temperature was mpaction test using a C ersonnel was notified pro orted to Twining Lab in te production was as for 4" HMA Type A was ap	on arrival met ATP forer and then placement of the AC Mix ID 2341240 M w/Fiber followed for th h road prior to the tack nitial breakdown perfor ng generally with a Dyn r Mix ID 21212415, as f s 284°F, at 492.79 tons PN MC-1DR-P Portapr for my departure. San Diego, CA. blows: pprox 57.01 tons, b) HM	oncrete overlay on S man Looney to discu asphalt concrete. Co 05- 3/4"HMA Type A the Mix ID 21212415 coat application. med with a Cat CB4 apac vibratory comp ollows; Load No 26, c, cast three set of ca obe nuclear gauge,	4B vibratory compactor, ir	oday. Contractor concrete from CCA- ey utilized first the ntermediate rolling No 1701253891, County and 4 for 5% County
	L+10/1/	≤ 111117 Type A 30-341	1 was approx 647.1 ton	э.		



### Twining, Inc. - San Diego Lab

15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424

Daily F	ield Report	Report No: DFR:W02-21-01387-01           Date of Issue: 04/14/2021         Issue No: 1
Customer:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C	Project No: 200638.2 Permit No:
Project:	San Diego, CA 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA	OSHPD: DSA File #: DSA AP #:
Distribution:		antest
Jurisdiction:	County of San Diego	Approved Signatory: Andrew Suarez

All inspections based on minimum of 4 hours and over 4 hours - 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.



Jose Franco-Casas, Inspector/Technician

### Remarks:

This report will be distributed to architect, engineer, client, and governing jurisdiction (e.g. DSA) as required by applicable codes and project documents.

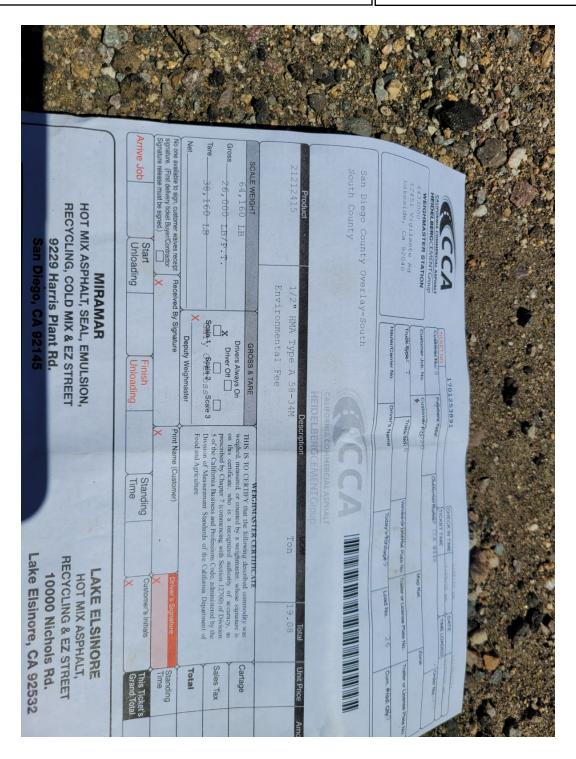
Certificate of Compliance		
The Work 🗸 Was 🗌 Was Not	The Work Inspected 🗸 Met 🗌 Did Not Meet	The Material Sampling 🗹 Was 🗌 Was Not
inspected in accordance with the requirements of the County of San Diego approved documents	the requirements of the County of San Diego approved documents	performed in accordance with the requirements of the County of San Diego approved documents

All Reports Remain The Property of Twining, Inc. Authorization For The Publication Of Our Reports, Conclusions, Or Extracts From Or Regarding Them is Reserved Pending Our Written Approval As A Mutual Protection To Clients, The Public and Ourselves

TWINING Daily Field Report	Twining, Inc San Diego Lab           15950 Bernardo Center Drive, Suite H           San Diego, CA 92127           Ph: 858-974-3750           Fax: 562.426.6424           Report No: DFR:W02-21-01387-O1           Date of Issue: 4/14/2021         Issue No: 1
Customer:       ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123         Project:       County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdiction: County of San Diego Distribution:	Approved Signatory: Andrew Suarez (Branch Manager)



	<b>VINING</b> eld Report	Twining, Inc San Diego Lab           15950 Bernardo Center Drive, Suite H           San Diego, CA 92127           Ph: 858-974-3750           Fax: 562.426.6424           Report No: DFR:W02-21-01387-01           Date of Issue: 4/14/2021         Issue No: 1
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdiction Distribution	n: County of San Diego n:	Approved Signatory: Andrew Suarez (Branch Manager)



Twining, Inc. - San Diego Lab 15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Exercise 2426 6404

		Fax: 562.426.6424	
	uclear Density Report	Report No: ND:W02-2 Date of Issue: 4/14/2021	21-01387 ssue No: 1
4 S Project: C S	ATP Engineering Contractors (Lehigh Hanson) ATP Engineering Contractors (Lehigh Hanson) ATP Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:	
Jurisdiction: ( Distribution:	County of San Diego	Approved Signatory: Andrew Suarez (Branch Manager)	1

Testing Details				
Tested By:	Jose Franco-Casas	Date Tested:	4/8/2021	
Plant:	Lakeside	Gauge Make/Model:		
Method of Measurement:	Backscatter	Density Standard Count:	36352	
Gauge Serial:		Moisture Standard Count	: 8244	
Calibration Date:		Weather:	Sunny	
Calibration Source:				

Test	t Results	S Station	Offset (ft)	From	Mix	Lift	Layer	Count	MLD	In Situ	Comp	ASTM Limit	D 2950 Results
No			0				Thickness (in)	Rate	(lb/ft³)	Density (lb/ft <sup>3</sup> )	(%)	(%)	
Appr	ox.Test Lo	cation:	Jamul, Ca.										
1	Skyline Truck Trail	NA	8.0	Centerline	23412305 3/4" HMA TYPE A	1	4.0	1 min.	148.60	140.90	95	≥95	Р
2	Skyline Truck Trail	NA	6.0	Centerline	23412305 3/4" HMA TYPE A	1	4.0	1 min.	148.60	140.60	95	≥95	Р
3	Skyline Truck Trail	NA	8.0	Centerline	23412305 3/4" HMA TYPE A	1	4.0	1 min.	148.60	140.50	95	≥95	Р
4	16232 Skyline Truck Trail	NA	6.0	Centerline	23412305 3/4" HMA TYPE A	1	4.0	1 min.	148.60	141.10	95	≥95	Р
5	16232 Skyline Truck Trail	NA	6.0	Centerline	21212305F 1/2" HMA 58-34M W/fiber	1	2.0	1 min.	145.30	137.70	95	≥95	Р
6	16001B Skyline Truck Trail	NA	8.0	Centerline	21212305F 1/2" HMA 58-34M W/Fiber	1	2.0	1 min.	145.30	137.50	95	≥95	Р
7	Skyline Truck Trail	NA	6.0	Centerline	21212305F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	145.30	137.40	95	≥95	Р
8	Skyline Truck Trail	NA	8.0	Centerline	21212305F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	145.30	139.20	96	≥95	Р
9	Skyline Truck Trail	NA	8.0	Centerline	21212305F 1/2" HMA 58-34M W/Fiber	1	2.0	1 min.	145.30	138.30	95	≥95	Р

Asr		/INI luclear	NG Density F	Report					15950 Beri San Diego Ph: 858-97 Fax: 562.4	Re	Drive, Suite	H ND:W02-	21-01387
	omer:	ATP Engin 4211 Pond San Diego County of \$	eering Contra erosa Avenue , CA, 92123 San Diego, As County Roads	ctors (Lehiç e, Suite C phalt Conc		Date of Issue: 4/14/2021     Issue No: 1       Project No.: 200638.2       Permit No.:       OSHPD:       DSA File #:       DSA AP #:							
	diction: ribution:	County of	San Diego						Approved Sid	gnatory: Andrew S	A Suarez (Branch	Manager)	*
<mark>Tes</mark> Test No	<mark>t Resu</mark> Road		n Offset (ft)	From	Mix	Lift	Layer Thickness (in)	Count Rate	MLD (lb/ft <sup>3</sup> )	In Situ Density (Ib/ft³)		- /	D 2950 Results
Appr	ox.Test	Location:	Jamul, Ca.				(,			(10/10)			
10	Skylin Truck Tra		8.0	Centerline	21212305F 1/2" HMA 58-34M W/fiber	1	2.0	1 min.	145.30	139.30	96	≥95	Р
11	Skylin Truck Tr		6.0	Centerline	21212305F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	145.30	140.30	97	≥95	Р
12	16232A Skyline Truck Tra	e NA	6.0	Centerline	21212305F 1/2" HMA 58-34M W/Fiber	1	2.0	1 min.	145.30	137.80	95	≥95	Р
13	16232E Skyline Truck Tra	e NA	6.0	Centerline	21212305F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	145.30	141.00	97	≥95	Р
14	162320 Skyline Truck Tra	e NA	8.0	Centerline	21212305F 1/2" HMA 58-34M W/fiber	1	2.0	1 min.	145.30	137.80	95	≥95	Р
15	16232E Skyline Truck Tr	e NA	6.0	Centerline	21212305F 1/2" HMA 58-34M W/fiber	1	2.0	1 min.	145.30	137.50	95	≥95	Р
16	16232E Skyline Truck Tr	ə NA	6.0	Centerline	21212305F 1/2" HMA 58-34M W/Fiber	1	2.0	1 min.	145.30	138.70	95	≥95	Р
17	16232F Skyline Truck Tra	e NA	6.0	Centerline	21212305F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	145.30	137.50	95	≥95	Р
18	16390A Skyline Truck Tra	e NA	6.0	Centerline	21212305F 1/2" HMA 58-34M W/fiber	1	2.0	1 min.	145.30	141.70	98	≥95	Р

					)onort					15950 Beri		Drive, Suite		21-01387	
-	omer:	ATP En	ginee	ring Contrac	tors (Lehig	h Hanson)				Project	sue: 4/14/202 No.: 20063	1		ssue No: 1	
Proje	ect:	San Die County	ego, C of Sa ego Co	A, 92123 n Diego, As ounty Roads	phalt Concr	rete Overlay	' Sout	h		Permit No.: OSHPD: DSA File #: DSA AP #:					
	sdiction: ribution:	County	of Sa	n Diego						Approved Sid	gnatory: Andrew S	Guarez (Branch	Manager)	4	
											,		- ,		
Test Test No	t Resu Road		ation	Offset (ft)	From	Mix	Lift	Layer Thickness (in)	Count Rate	MLD (lb/ft³)	In Situ Density (Ib/ft³)	Comp (%)	ASTM Limit (%)	D 2950 Results	
Appr	ox.Test	Locatio	on: J	amul, Ca.											
19	16390E Skyline Truck Tr	e N	IA	6.0	Centerline	21212305F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	145.30	140.40	97	≥95	Р	
20	163900 Skyline Truck Tr	e N	IA	8.0	Centerline	21212305F 1/2" HMA 58-34M W/Fiber	1	2.0	1 min.	145.30	138.40	95	≥95	Р	
21	16390D Skyline Truck Tr	e N	IA	8.0	Centerline	21212305 1/2" HMA 58-34M TYPE A	1	2.0	1 min.	145.30	138.20	95	≥95	Р	
22	16390E Skyline Truck Tr	e N	IA	6.0	Centerline	21212305 1/2" HMA 58-34M TYPE A	1	2.0	1 min.	145.30	138.40	95	≥95	Р	
23	16390E Skyline Truck Tr	e N	IA	6.0	Centerline	21212305 1/2" HMA 58-34M TYPE A	1	2.0	1 min.	145.30	138.70	95	≥95	Р	
24	16390E Skyline Truck Tr	e N	A	6.0	Centerline	21212305 1/2" HMA 58-34M TYPE A	1	2.0	1 min.	145.30	139.30	96	≥95	Р	
25	16390E Skyline Truck Tr	e N	A	8.0	Centerline	21212305 1/2" HMA 58-34M TYPE A	1	2.0	1 min.	145.30	137.60	95	≥95	Р	
26	16390E Skyline Truck Tr	e N	IA	6.0	Centerline	21212305 1/2" HMA 58-34M TYPE A	1	2.0	1 min.	145.30	140.80	97	≥95	Р	
27	Skylin Truck Tr		IA	6.0	Centerline	21212305 1/2" HMA 58-34M TYPE A	1	2.0	1 min.	145.30	137.90	95	≥95	Р	
28	Skylin Truck Tr		IA	8.0	Centerline	21212305 1/2" HMA 58-34M TYPE A	1	2.0	1 min.	145.30	137.70	95	≥95	Р	
29	Skylin Truck Tr		A	6.0	Centerline	21212305 1/2" HMA 58-34M TYPE A	1	2.0	1 min.	145.30	137.70	95	≥95	Р	

		UCLEAR D		Report					15950 Berr San Diego, Ph: 858-97 Fax: 562.4	4-3750 26.6424	Drive, Suite	H ND:W02-2	21-01387 ssue No: 1
Custo Proje	4 Sect: C	TP Enginee 211 Ponder San Diego, C County of Sa San Diego Co San Diego, C	osa Avenue A, 92123 n Diego, As punty Roads	, Suite C		/ Sout	h		Project I Permit N OSHPD: DSA File DSA AP	e #:	8.2		
	diction: ( ibution:	County of Sa	n Diego						Approved Sig	gnatory: Andrew S	Suarez (Branch	Manager)	
Test	t Resu	ts							-			ASTM	D 2950
Test No	Road	Station	Offset (ft)	From	Mix	Lift	Layer Thickness (in)	Count Rate	MLD (lb/ft³)	In Situ Density (Ib/ft³)	Comp (%)	Limit (%)	Results
Appro	ox.Test L	ocation: J	lamul, Ca.										
30	Skyline Truck Tra		6.0	Centerline	21212305 1/2" HMA 58-34M TYPE A	1	2.0	1 min.	145.30	138.80	96	≥95	Ρ



Contact: Patrick Terrell Quality Control Manager II Phone: (858) 602-5474 Fax: (951) 684-3186

Project:	San D	)iego Coun	ty Overlay S	outh	Date Sampled:	4/8/2021
Material Description:		Combin	ed RAP		Time Sampled:	605am
Material Source:		CCA La	akeside		Sampled By:	I. Montano
Sample Location:		Belt Cut			Date Tested:	4/8/2021
Lot #:	Sublot #:		Tons Out:		Tested By:	I. Montano

### **RECYCLED ASPHALT PRODUCT**

### MOISTURE CONTENT OF RAP (CTM 370)

Wet Weight:	3124.5	Dry Weight:	3063.4	RAP Moisture:	2.0%
-------------	--------	-------------	--------	---------------	------

### SIEVE ANALYSIS OF POST IGNITION OVEN RAP (CTM 202)

Basket Mass	287	'9.9	Basket +	- Sample	Sample 442		0.8 HMA Sam		154	0.9
Basket + Sample Burned		432	1.3	Burned A	Agg Mass	144	1.4	Approx. O	il % TWM	5.17

Sieve Size		Weight Retained (grams)	Percent Retained (%)	Percent Passing (%)	Correction Factor (%)	Corrected Percent Passing
2"	(50mm)	0	0.0%	100.0%	0.0	100.0%
1-1/2"	(37.5mm)	0	0.0%	100.0%	0.0	100.0%
1"	(25mm)	0	0.0%	100.0%	0.0	100.0%
3/4"	(19mm)	0	0.0%	100.0%	0.0	100.0%
1/2"	(12.5mm)	29	2.0%	98.0%	+0.2	98.2%
3/8"	(9.5mm)	123.5	8.6%	91.4%	+0.6	92.0%
#4	4.75mm)	361.6	25.1%	74.9%	-0.8	74.1%
#8	(2.36mm)	106.5	40.7%	59.3%	+0.5	59.8%
#16	(1.18mm)	194.9	53.7%	46.3%	-0.7	45.6%
#30	(600µm)	269.3	64.6%	35.4%	-0.6	34.8%
#50	(300µm)	347.8	76.1%	23.9%	-0.2	23.7%
#100	(150µm)	408.5	85.0%	15.0%	+0.3	15.3%
#200	(75µm)	444.9	90.3%	9.7%	+0.5	10.2%
Mass	Mass of #4 Split 510.9					-

Approved By:

atrick

Patrick Terrell Quality Control Manager II



Contact: Patrick Terrell Quality Control Manager II Phone: (858) 602-5474 Fax: (858) 513-0612

Project:		San Diego County Overlay South				rlay South		Date Sampled:	4/8/2021
Material Description: 212			21212415 FIBER 1/2" HMA-A w/25% RAP				RAP	Time Sampled:	605am
Material So	/aterial Source: CCA Lakeside			Sampled By:	I. Montano				
Sample Location:		Belt Cut				Date Tested:	4/8/2021		
Tons Out:		Load #		Lot #		Sublot #		Tested By:	I. Montano

### SIEVE ANALYSIS (CTM 202)

						Aggregate %	RAP %
Wet Weight:	5867.1	Dry Weight:	5768.2	% Moisture:	1.71%	75%	25%

									Speci	fication
Sie	ve Size	Weight Retained	Percent Retained		x Agg %	RAP Pass	x RAP %	Total Percent Passing		wable erance
2"	(50mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1-1/2"	(37.5mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1"	(25mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
3/4"	(19mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	100	
1/2"	(12.5mm)	548.5	9.5%	90.5%	67.9%	98.2%	24.5%	92%	96	90-100
3/8"	(9.5mm)	1504.2	26.1%	73.9%	55.4%	92.0%	23.0%	78%	77	71-83
#4	(4.75mm)	2916.3	50.6%	49.4%	37.1%	74.1%	18.5%	56%	55	48-62

Fine Agg Dry Weight:

507.2

										Spe	cification
Si	eve Size	Weight Retained	Percent Retained	Agg Pass	x #4	x Agg %	RAP Pass	x RAP %	Total Percent Passing		lowable lerance
#8	(2.36mm)	121.7	24%	76%	38%	28.2%	59.8%	14.9%	43%	43	38-48
#16	(1.18mm)	211.5	42%	58%	29%	21.6%	45.6%	11.4%	33%	33	
#30	(600µm)	315.1	62%	38%	19%	14.0%	34.8%	8.7%	23%	22	17-25
#50	(300µm)	409.4	81%	19%	10%	7.2%	23.7%	5.9%	13%	13	
#100	(150µm)	454.4	90%	10%	5%	3.9%	15.3%	3.8%	8%	7	
#200	(75µm)	473.2	93.3%	6.7%	3.3%	2.5%	10.2%	2.5%	5.0%	4.4	2.4-6.4

### SAND EQUIVALENT (CTM 217)

Approved by:

atrick enel

Patrick Terrell Quality Control Manager II

Specin Numb	Sand Reading	Clay Reading	Sand Equivalent	
1	4.2	6.9	61	Specification
2	4.2	6.8	62	47
3	4.4	7.2	62	47
		Average	62	



Project:	San Diego County Overlay South			Date Sampled:	4/8/2021		
Міх Туре:	21212415 FIBER 1/2" HMA-A w/25% RAP			Time Sampled:	727am	Load #:	8
Material Source:	CCA Lakeside			Sampled By:	I. Montano		
Sample Location:	Truck Bed at Plant			Date Tested:	4/8/2021		
Ticket #:	1701253823 Tons Out: 146.65		Tested By:	I. Montano			

### ASPHALT BINDER CONTENT OF HMA BY THE IGNITION METHOD CALIFORNIA TEST METHOD 382

Calibration Information:								
Ignition Oven Identification:	Thermolyne NCAT Serial #: 0151796801150209							
Set Point Temperature from Calibration:	⊠ 538°C □ 482°C □ 427°C							
Total ignition time from calibration (minutes):	46 - 56 minutes							
Asphalt Binder type and source:	PG 58-16 San Joaquin							
Aggregate Source:	Hanson Aggregates, Vigilante Mine							
Correction Factor, CF (%):	0.45%							

Ignition	Oven	Procedure
----------	------	-----------

Mass of Basket, M <sub>e</sub> (g):	287	2872.0				
Mass of Mixed Sample + Basket, M <sub>1</sub> (g):	455	57.2				
Net Mass of of the Mixed Sample, $M_1$ - $M_{e_1}$ , $M_i$ (g):	168	35.2				
Mass of Sample + Basket after burn off, M <sub>2</sub> (g):	445	4456.8				
Final Mass of Sample Aggregate, $M_2$ - $M_e$ , $M_f$ (g)	158	1584.8				
Raw Aspahlt Content, A = ( $(M_i - M_f) \div M_i$ ) x 100 (%):	5.9	5.96%				
Corrected Asphalt Content AC = A - CF - MC (%):	5.51%	5.83%				
	% by Total Weight of Mix	% by Dry Weight of Agg				

wix woisture, wc	U		
Target by TWM:	5.39%	Allowable Range	5.09 - 5.89
Target by DWA:	5.70%	Allowable Range	5.36 - 6.26

Form: CCA-T308 Rev. 1.1 9/29/2017

Approved By: Satrick

Patrick Terrell - QC Manager II



Contact: Patrick Terrell Quality Control Manager II Phone: (858) 602-5474 Fax: (951) 684-3186

Project:		San D	San Diego County Overlay South			Date Sampled:	4/8/2021
Material D	escription:	Combined RAP				Time Sampled:	605am
Material S	Material Source: CCA Lakeside				Sampled By:	I Montano	
Sample Lo	Sample Location:		Belt	Cut		Date Tested:	4/8/2021
Lot #:		Sublot #:		Tons Out:	20	Tested By:	l Montano

### **RECYCLED ASPHALT PRODUCT**

### MOISTURE CONTENT OF RAP (CTM 370)

Wet Weight: 3124.5 Dry Weight:	3063.4	RAP Moisture:	2.0%
--------------------------------	--------	---------------	------

### SIEVE ANALYSIS OF POST IGNITION OVEN RAP (CTM 202)

Basket Mass	287	'9.9	Basket +	- Sample	442	.0.8	HMA San	nple Mass	154	0.9
Basket + Sample Burned		432	Burned A		Agg Mass 144		1.4	Approx. O	il % TWM	5.17

Sieve Size		Weight Retained (grams)	Percent Retained (%)	Percent Passing (%)	Correction Factor (%)	Corrected Percent Passing	
2"	(50mm)	0	0.0%	100.0%	0.0	100.0%	
1-1/2"	(37.5mm)	0	0.0%	100.0%	0.0	100.0%	
1"	(25mm)	0	0.0%	100.0%	0.0	100.0%	
3/4"	(19mm)	0	0.0%	100.0%	0.0	100.0%	
1/2"	(12.5mm)	29	2.0%	98.0%	+0.2	98.2%	
3/8"	(9.5mm)	123.5	8.6%	91.4%	+0.6	92.0%	
#4	4.75mm)	361.6	25.1%	74.9%	-0.8	74.1%	
#8	(2.36mm)	106.5	40.7%	59.3%	+0.5	59.8%	
#16	(1.18mm)	194.9	53.7%	46.3%	-0.7	45.6%	
#30	(600µm)	269.3	64.6%	35.4%	-0.6	34.8%	
#50	(300µm)	347.8	76.1%	23.9%	-0.2	23.7%	
#100	(150µm)	408.5	85.0%	15.0%	+0.3	15.3%	
#200	(75µm)	444.9	90.3%	9.7%	+0.5	10.2%	
Mass	of #4 Split	510.9				-	

Approved By:

atrick enell

Patrick Terrell Quality Control Manager II



**Contact: Patrick Terrell Quality Control Manager II** Phone: (858) 602-5474 Fax: (858) 513-0612

Project:		San Diego County Overlay South				Date Sampled:	4/8/2021
Material De	scription:	23412305 3/4" HMA-A w/25% RAP			νP	Time Sampled:	530am
Material So	urce:	CCA Lakeside				Sampled By:	I. Montano
Sample Location: Belt Cut			Date Tested:	4/8/2021			
Tons Out:	Tons Out:			Lot # Sublot #		Tested By:	I. Montano

### SIEVE ANALYSIS (CTM 202)

						Aggregate %	RAP %	
Wet Weight:	5513.8	Dry Weight:	5443.5	% Moisture:	1.29%	75%	25%	

									Specification
Sieve Size		Weight Retained	Percent Retained	Percent Passing	x Agg %	RAP Pass	x RAP %	Total Percent Passing	Allowable Tolerance
2"	(50mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	
1-1/2"	(37.5mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	
1"	(25mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	100
3/4"	(19mm)	96.5	1.8%	98.2%	73.7%	100.0%	25.0%	99%	98 93-100
1/2"	(12.5mm)	1587	29.2%	70.8%	53.1%	98.2%	24.5%	78%	75 69-81
3/8"	(9.5mm)	2274	41.8%	58.2%	43.7%	92.0%	23.0%	67%	62
#4	(4.75mm)	3206.1	58.9%	41.1%	30.8%	74.1%	18.5%	49%	46 39-53

Fine Agg Dry Weight:

517.7

										Spe	cification
Si	ieve Size	Weight Retained	Percent Retained	Agg Pass	x #4	x Agg %	RAP Pass	x RAP %	Total Percent Passing		lowable lerance
#8	(2.36mm)	108.7	21%	79%	32%	24.4%	59.8%	14.9%	39%	34	29-39
#16	(1.18mm)	200.8	39%	61%	25%	18.9%	45.6%	11.4%	30%	25	
#30	(600µm)	305.3	59%	41%	17%	12.6%	34.8%	8.7%	21%	17	13-21
#50	(300µm)	401.6	78%	22%	9%	6.9%	23.7%	5.9%	13%	11	
#100	(150µm)	451.6	87%	13%	5%	3.9%	15.3%	3.8%	8%	6	
#200	(75µm)	475.5	91.8%	8.2%	3.4%	2.5%	10.2%	2.5%	5.1%	4.1	2.1-6.1

### SAND EQUIVALENT (CTM 217)

Specimen Number	Sand Reading	Clay Reading	Sand Equivalent		
1	4.0	6.5	62	Specification	
2	4.3	6.9	63	47	
3	4.2	6.8	62	47	
		Average	62		

Approved by:

atrick enel

Patrick Terrell Quality Control Manager II



Project:	San Diego County Overlay South		Date Sampled:	4/8/2021			
Міх Туре:	23412305 3/4" HMA-A w/25% RAP		Time Sampled:	6:39 AM	Load #:	2	
Material Source:	CCA Lakeside		Sampled By:	I. Montano			
Sample Location:	Truck Bed a	at Plant		Date Tested:	4/8/2021		
Ticket #:	1701253811	Tons Out:	38.7	Tested By:	I. Montano		

## ASPHALT BINDER CONTENT OF HMA BY THE IGNITION METHOD CALIFORNIA TEST METHOD 382

Calibration Information:							
Ignition Oven Identification: Thermolyne NCAT Serial #: 0151796801150209							
Set Point Temperature from Calibration:	☑ 538°C						
Total ignition time from calibration (minutes):	46 - 56 minutes						
Asphalt Binder type and source:	PG 58-16 San Joaquin						
Aggregate Source: Hanson Aggregates, Vigilante Mine							
Correction Factor, CF (%):	0.58%						

Ignition	Oven	Procedure
----------	------	-----------

287	2870.9				
490	)5.2				
203	2034.3				
479	4790.5				
191	1919.6				
5.6	4%				
5.06%	5.33%				
% by Total Weight of Mix	% by Dry Weight of Agg				
•	490 203 479 191 5.6 5.06%				

wix woisture, wc	0		
Target by TWM:	5.03%	Allowable Range	4.58 - 5.48
Target by DWA:	5.30%	Allowable Range	4.80 - 5.80

Satrick, Approved By-

Form: CCA-T308 Rev. 1.1 9/29/2017

Patrick Terrell - QC Manager II



# HMA Physical Properties Worksheet

Client ATP Engineering Contractors
Project SD County Overlay South

Sample Location/ID 1/2" HMA 58-34 w/ fiber

Job No. 200638.2

Lab No. W05-21-00775

Sampled by Jose Date Sampled 4/8/2021

Tested By BB

Date Tested 4/10/2021

CT 309 Maximum Theoretical Gravity				
Sample Weight	1880.5			
Pyncnometer + H <sub>2</sub> O	7356.4			
Sample+Pyncnometer+H <sub>2</sub> O	8471.8			
Temperature H <sub>2</sub> O	25.0			
Maximum Specific Gravity	2.458			

Lab Test						
Briquette ID	1	2	3			
Thickness	2.51	2.52	2.53			
Weight in Air	1198.6	1200.2	1200.0			
Paraffin Coated Wt	1211.1	1214.2	1214.5			
Weight in Water	686.4	686.7	685.7			
Vol. cc	510.8	511.9	512.7			
Sp. Gr.	2.346	2.344	2.341			
PCF	146.0	145.9	145.7			
Spec	cific Gravity	, (average)	2.344			
Weight pe	Weight per cubic foot, (average)					
	Air Voids (a	verage), %	4.6			

	CT 366 Stability											
2000	3000	4000	5000lbs (R)	6000	Turn Dial (T)	Stability						
16	22	29	36.0	45	2.66	46						
17	24	31	38.0	47	2.71	44						
16	23	30	37.0	47	2.63	45						
	Average Stability											

All reports remain the property of Twining, Inc. Authorization for publication of our reports, conclusions, or extracts from or regarding them is reserved pending our written approval as a mutual protection to clients, the public, and ourselves.



Twining, Inc. - San Diego Lab 15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424

Daily Fi	ield	Report				Report No: DFR: Date of Issue: 04/08/202		-01346-O1 Issue No: 1
Customer:	ATP F	ngineering Contractors	(Lehigh Hanson)			Project No: 200638.2		
Cuclomon		Ponderosa Avenue, Sui				Permit No:		
		ego, CA 92123				OSHPD:		
Project:		-	Concrete Overlay South			DSA File #:		
.,	-	ego County Roads	,			DSA AP #:		
		ego, CA						
Distribution:						1 1		
						antes		_
Jurisdiction:	County	/ of San Diego				Approved Signatory: Andre	ew Suare	Z
Test Date:		Tuesday, April 6, 20	21	Inspector:	Jos	se Franco-Casas		
Inspection No	0.:							
Contractor:		ATP General Engine	-					
Equipment O	bsv.:		, e) Cat CB7 vibratory c			at paver, d) Cat CB54B o CC4200 VI vibratory co		
<b>Time Arrived</b>	:	7:00 AM	Time Departed:	2:30 PM		Time on Site:	7.5 H	Hrs
Lunch Start:		11:15 AM	Lunch End:	11:45 AM		Travel Time:	2 Hrs	S
Mileage:			Weather:	Sunny				
Types of Te	sting /	Observations						
Asphalt - Fie	eld Dens	sity Testing						
Referenced					_			
HMA ID's: 212	212415F	1/2" HMA 58-34M V	V/fiber and 21212415-	1/2" HMA Type	A 58	-34M.		
Observation								
Jobsite: M (start):_2:30pr ****	liles fron m Tra	n Jobsite: Travel t	o Jobsite (start):_6:00a	m Travel to Jo	obsite	auge, AC gear and AC s (end):_7:00am Trave t Used: _CPN nuclear g	el from Jo	obsite
Picked up the On site as req No 16700. Up Concrete Mix HMA was prod Observe 2-Me Asphalt concre intermediate r HMA tempera Sampled the H 300°F, at 319. transported to Conducted 34	density juested on arriv ID 2121 duced a echanica ete plac olling pe ture at/a HMA ID .89 tons Twining AC cor	gauge, AC gear and to provide AC density al met ATP foreman I 2415F-1/2" HMA 58- t CCA-Lakeside Plant al brooms swept each ement with a Cat pav erformed with a Cat C above 300°F. 21212415F, as follow . Cast 12 boxes with for testing. npaction test using a	ooney to discuss the so 34M W/fiber and then s road prior to the tack co er, initial breakdown per B7 smooth drums roller vs: Load No, Time 8:50a asphalt concrete, 8 boxe	on Skyline Truck cope of work for witch for the HM pat application. formed with a C and final rolling am, Truck No SD as for the County	today IA 21: at CE with 0189, y and	approx between House , contractor started plac 212415- 1/2" HMA Type 354B dual drums vibrato a Dynapac CC4200 VI v Ticket No 170125, AC to 4 boxes for Twining, this these AC density test me	ing the A A 58-34 ry comp ibratory emperati s sample	Asphalt IM. These Pactor, compactor. ure was e was
		ersonnel was notified. rete production was a	pproximately 640 tons c	f the Mix ID 212	1241	5F and		



#### Twining, Inc. - San Diego Lab

15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424

Daily Fi	ield Report	Report No: DFR:W02-21-01346-01           Date of Issue: 04/08/2021         Issue No: 1
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA	Project No: 200638.2 Permit No: OSHPD: DSA File #: DSA AP #:
Distribution: Jurisdiction:	County of San Diego	Approved Signatory: Andrew Suarez

All inspections based on minimum of 4 hours and over 4 hours - 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.



Jose Franco-Casas, Inspector/Technician

#### Remarks:

This report will be distributed to architect, engineer, client, and governing jurisdiction (e.g. DSA) as required by applicable codes and project documents.

Certifica	te of Com	pliance					
The Work	✓ Was	Was Not	The Work Inspected	Met 🔲 Did Not Meet	The Material Sampling	✓ Was	Was Not
	cordance with the San Diego approv	e requirements of ed documents	the requirements of the Coun	ty of San Diego approved documents	performed in accordance with t San Diego approved documen		of the County of

All Reports Remain The Property of Twining, Inc. Authorization For The Publication Of Our Reports, Conclusions, Or Extracts From Or Regarding Them is Reserved Pending Our Written Approval As A Mutual Protection To Clients, The Public and Ourselves

	VINING eld Report	Twining, Inc San Diego Lab           15950 Bernardo Center Drive, Suite H           San Diego, CA 92127           Ph: 858-974-3750           Fax: 562.426.6424           Report No: DFR:W02-21-01346-O1           Date of Issue: 4/8/2021         Issue No: 1
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdictior Distribution	ո։ County of San Diego ։	Approved Signatory: Andrew Suarez (Branch Manager)

MIRAMAR HOT MIX ASPHALT, SEAL, EMULSION RECYCLING, COLD MIX & EZ STREET 9229 Harris Plant Rd. San Diego, CA 92145	Sprature, Frederiver, tocstmere waters teesper Sprature release must be signed. Start Arrive Job Unioading		Product 21212415F Envi	San Diego County Overlay-South South County	Aurouwa conversa. Asynty HEDELBERGCEMEVTCA. WEIGHUASTER STATION 12451 Vigilante Rd Lakeside, Ca 92040
MIRAMAR HOT MIX ASPHALT, SEAL, EMULSION, RECYCLING, COLD MIX & EZ STREET 9229 Harris Plant Rd. San Diego, CA 92145	X Finish ng Unloading	CROSS & TARE Drivers Always On Driver Off Car Scale 1 Scale 2 Scale 3 Gary Oveross Deputy Weighmaster	1/2" HMA 58-34M w/Fiber Environmental Fee	CALIF	TICKET NO 1701253642 Customer Job No. Customer BOO Truck Lipte E T. T. Truck Mo
LAK HOT RECYC 1000 Lake El	Time Customer)	WERGHMASTER CERTIFICATE THIS IS TO CERTIFY that the following described commodity was weighed measured or counted by a weighmaster, whose signature is on this certificate, who is a recoprized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Polessions Cock_alumnisteed by the Division of Measurement Standards of the California Department of Food and Agriculture	er Ton	IA COMMERCIAL ASPHALT	Pt Critician Disco
LAKE ELSINORE HOT MIX ASPHALT, RECYCLING & EZ STREET 10000 Nichols Rd, Lake Elsinore, CA 92532 COACHELLA	Diver's Signature X Time Customer's Initials X Grand Total	E Cartage dicommodity was whose signature is 12700 of Division duministered by the bia Department of Total			CHECK IN TIME TABERO and OATE CHOCK IN TIME TABERO and OATE CHOCK IN TIME CHOCED CONCERNMENT FOR THE CHOCED CONCERNS TO THE CHOCK OF THE CONCERNS PLANE NO. TRANSFORMED FOR NO. 177
	ig kers			Amount	UV/WWWWWWW UV/WWWWWWW UV/WWWWWW UV/WWWWWW UV/WWWWWW UV/WWWWWW UV/WWWWWW UV/WWWWWW UV/WWWWWW UV/WWWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWWW UV/WWWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWW UV/WWWWWW UV/WWWWWW UV/WWWWW UV/WWWWW UV/WWWWWW UV/WWWWW UV/WWWWW UV/WWWWWW UV/WWWWWW UV/WWWWWW UV/WWWWWW UV/WWWWWW UV/WWWWWW UV/WWWWWW UV/WWWWWW UV/WWWWWW UV/WWWWWW UV/WWWWW UV/WWWWWW UV/WWWWW UV/WWWWW UV/WWWWWW UV/WWWWW UV/WWWWWW UV/WWWWWW UV/WWWWWW UV/WWWWWW UV/WWWWWW UV/WWWWWW UV/WWWWWW UV/WWWWWW UV/WWWWWWW UV/WWWWWWW UV/WWWWWWW UV/WWWWWWW UV/WWWWWWWW UV/WWWWWWWWWWWWW UV/WWWWWWWWWWWWWW UV/WWWWWWWWWWWWWWWWWWWWW UV/WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW

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Twining, Inc. - San Diego Lab 15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Exercise 2426 6404

		Fax: 562.426.6424				
Asphalt	Nuclear Density Report	Report No: ND:W02-21-01346           Date of Issue: 4/8/2021         Issue No: 1				
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:				
Jurisdictior Distribution	n: County of San Diego n:	Approved Signatory: Andrew Suarez (Branch Manager)				

Testing Details			
Tested By:	Jose Franco-Casas	Date Tested:	4/6/2021
Plant:	Lakeside	Gauge Make/Model:	
Method of Measurement:	Backscatter	Density Standard Count	: 36381
Gauge Serial:		Moisture Standard Coun	nt: 8339
Calibration Date:		Weather:	Sunny
Calibration Source:			

Tes	t Results	s										ASTM	D 2950
Test No		Station	Offset (ft)	From	Mix	Lift	Layer Thickness (in)	Count Rate	MLD (lb/ft³)	In Situ Density (Ib/ft³)	Comp (%)	Limit (%)	Results
Аррі	rox.Test Lo	cation: J	lamul, Ca.										
1	16001A Skyline Truck Trail	NA	8.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	145.30	137.70	95	≥95	Р
2	16001B Skyline Truck Trail	NA	6.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	145.30	139.00	96	≥95	Р
3	Skyline Truck Trail	NA	10.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	145.30	139.60	96	≥95	Р
4	Skyline Truck Trail	NA	8.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	145.30	137.40	95	≥95	Р
5	Skyline Truck Trail	NA	6.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	145.30	140.70	97	≥95	Р
6	Skyline Truck Trail	NA	6.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	145.30	138.30	95	≥95	Р
7	Skyline Truck Trail	NA	10.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	145.30	140.50	97	≥95	Р

		/1N					Twining, Inc San Diego Lab           15950 Bernardo Center Drive, Suite H           San Diego, CA 92127           Ph: 858-974-3750           Fax: 562.426.6424           Report No: ND:W02-21-0134							
Cust Proje	omer:	ATP Eng 4211 Poi San Dieg County c San Dieg San Dieg	ineer ndero go, C/ of San go Co go, C/		ctors (Lehig , Suite C ohalt Conci		Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:							
Juris Disti	urisdiction: County of San Diego istribution:										gnatory: Andrew S	And Buarez (Branch	Manager)	
<mark>Tes</mark> Test No	<mark>t Resu</mark> Road		ion	Offset (ft)	From	Mix	Lift	Layer Thickness (in)	Count Rate	MLD (Ib/ft <sup>3</sup> )	In Situ Density (Ib/ft³)			D 2950 Results
Appr	ox.Test	Locatio	n: Ja	amul, Ca.										
8	16232A Skyline Truck Tra	e N/	ł	8.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	145.30	141.20	97	≥95	Ρ
9	16232B Skyline Truck Tra	e N/	Ą	8.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	145.30	138.80	96	≥95	Р
10	16232C Skyline Truck Tra	e N/	Ą	6.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	145.30	139.00	96	≥95	Р
11	16232D Skyline Truck Tra	e N/	Ą	10.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	145.30	139.80	96	≥95	Р
12	16232E Skyline Truck Tra	e N/	ł	6.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	145.30	140.10	96	≥95	Р
13	Skylin Truck Tra		Ą	8.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	145.30	138.20	95	≥95	Р
14	Skylin Truck Tra		Ą	6.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	145.30	138.80	96	≥95	Р
15	Skylin Truck Tra	ie N/ ail N/	Ą	10.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	145.30	140.30	97	≥95	Р
16	Skylin Truck Tra	ie ail				21212415F 1/2" HMA 58-34M w/fiber	1	2.0	1 min.	145.30	138.10	95	≥95	Р

		/INI							15950 Beri	26.6424	Drive, Suite	H	24.04240
Asp	ohalt N	luclear D	ensity F	Report					Report No: ND:W02-21-01346 Date of Issue: 4/8/2021 Issue No: 1				
Cust		ATP Enginee 4211 Ponder			h Hanson)					No.: 20063	8.2		
Proje	ect:	San Diego, C County of Sa San Diego C San Diego, C	CA, 92123 In Diego, As ounty Roads	phalt Conci	rete Overlay	/ Sout	th		Permit N OSHPD: DSA File DSA AP	e #:			
		County of Sa							Approved Sir	gnatory: Andrew S		Manager)	2
_		14								gnatory. Andrew s	Suarez (Branch		<b>D</b> 00 <b>T</b> 0
Test No	t Resu Road	Station	Offset (ft)	From	Mix	Lift	Layer Thickness (in)	Count Rate	MLD (Ib/ft³)	In Situ Density (Ib/ft³)	Comp (%)	ASIM Limit (%)	D 2950 Results
Appr	ox.Test	Location:	Jamul, Ca.	1	04040445					1	1		
17	16390E Skyline Truck Tra	e NA	6.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	145.30	138.80	96	≥95	Р
18	163900 Skyline Truck Tra	e NA	8.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	145.30	139.50	96	≥95	Р
19	Skylin Truck Tra		10.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	145.30	138.90	96	≥95	Р
20	Skylin Truck Tra		6.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	145.30	138.40	95	≥95	Р
21	Skylin Truck Tra		6.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	145.30	137.40	95	≥95	Р
22	Skylin Truck Tra	INA	10.0	Centerline	21212415F 1/2" HMA 58-34M Type A	1	2.0	1 min.	145.30	138.10	95	≥95	Р
23	Skylin Truck Tra		8.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	145.30	137.80	95	≥95	Р
24	Skylin Truck Tra		8.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	145.30	138.20	95	≥95	Р
25	Skylin Truck Tra		8.0	Centerline	21212415 1/2" HMA 58-34M	1	2.0	1 min.	145.30	137.50	95	≥95	Р
26	Skylin Truck Tr		6.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	145.30	140.90	97	≥95	Р
27	Skylin Truck Tra		8.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	145.30	140.10	96	≥95	Р
28	Skylin Truck Tra		6.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	145.30	139.00	96	≥95	Р

	phalt Nu		ensity F	•					15950 Beri San Diego Ph: 858-97 Fax: 562.4		Drive, Suite	н ND:W02-	21-01346 ssue No: 1
Cus Proj	4: S ect: C S	211 Ponder an Diego, C ounty of Sa	n Diego, As ounty Roads	, Suitè C phalt Conci		Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:							
	sdiction: C ribution:	County of Sa	n Diego						Approved Sig	gnatory: Andrew S	Suarez (Branch	Manager)	
Tes	t Resul	ts										ASTM	D 2950
Test No	Road	Station	Offset (ft)	From	Mix	Lift	Layer Thickness (in)	Count Rate	MLD (lb/ft³)	In Situ Density (Ib/ft³)	Comp (%)	Limit (%)	Results
Арр	rox.Test L	ocation:	Jamul, Ca.										
29	Skyline Truck Trai		10.0	Centerline	21212415F 1/2" HMA 58-34M Type A	1	2.0	1 min.	145.30	141.40	97	≥95	Р
30	Skyline Truck Trai		8.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	145.30	138.20	95	≥95	Р
31	16652 Skyline Truck Trai	NA	6.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	145.30	138.40	95	≥95	Р
32	16660A Skyline Truck Trai	NA	6.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	145.30	139.20	96	≥95	Р
33	16660B Skyline Truck Trai	NA	4.0	Centerline	21212415 1/2" HMA 58-34M Type A	1	2.0	1 min.	145.30	140.20	96	≥95	Р

SUN	IMARY OF TESTING					Z	∆т	WINI	N G			
CONT	RACTOR NAME, ADDRESS, AND PI	HONE NUMBER	SAMPLE DATE		4/6	6/2021						
	General Engineering I Ponderosa Ave		FIELD NUMBER 21212415 FIBER 4-6-2021									
	Diego, CA 92123		21212413 FIBER 4-0-2021 TEST NUMBER									
Has	san Bitar/Greg Johnson				Lot	1 SL 1						
	530-8541 ) South		HMA TYPE	1	/2" HMA-A	; PG 58-34	4PM					
This for	m must be submitted with all daily testing re	aparta Cirala all test regults that are	SAMPLE INFORM									
	in the Action Limits. Use additional sheets a		Test Result Sublot	Test Result	LOT Test Result	1 SL 1 Test Result		1	1			
	Quality Characte	Number	Sublot Number	Sublot Number	Sublot Number	LSL	Target Value	USL				
	Aggregate gradation (% pass	-										
	Sieve Size											
	2"		100				100	100	100			
	1 1/2"		100				100	100	100			
	1"		100				100	100	100			
	3/4"		100				100	100	100			
	1/2"		94				91	96	100			
ing	3/8"		77				71	77	83			
Passing	No. 4		55				48	55	62			
%	No. 8		44				38	43	48			
	No. 16		34					33				
	No. 30		24				17	22	25			
	No. 50		13					13				
	No. 100		8					7				
	No. 200		5.3				2.4	4.4	6.4			
San	d Equivalent	CTM 217	63				50		Min			
HMA	A Moisture Content (%)	CTM 382	0.0				0		1.0			
Agg	regate Moisture	CTM 226	1.81					Report O	nly			

TEST PROPERTY	А	В	С		AVC	Э.	Va	Target lues/Toler		
Asphalt binder content (%TWM)	С	CTM 38	2	5.46			5.09 5.39 5.89			
RAP AC %	С	CTM 38	2	5.23			2.70	2.70 4.70 6.70		
RAP Moisture	С	CTM 37	0	1.70			Report Only			
Hveem Stability	С	CTM 36	6	46			37			
Briquette Sp. Gr.	2.361	2.349	2.357	2.356				N/A		
Theoritical Max Density	(	CT 309		2.452			Report Only			
Air Voids (%)	3.7	4.2	3.9	3.9			2.5	4	5.5	



# HMA Physical Properties Worksheet

Client <u>ATP Engineering Contractors</u> Project <u>SD County Overlay South</u>

Sample Location/ID 1/2" HMA 58-34 w/ fiber

Job No. 200638.2

Lab No. W05-21-00752

Sampled by Jose Date Sampled 4/6/2021

Tested By BB

Date Tested 4/7/2021

CT 309 Maximum Theoretical Gravity								
Sample Weight	1698.5							
Pyncnometer + H <sub>2</sub> O	7356.4							
Sample+Pyncnometer+H <sub>2</sub> O	8362.2							
Temperature H <sub>2</sub> O	25.0							
Maximum Specific Gravity	2.452							

Lab Test	ed Maximu	m Density						
Briquette ID	1	2	3					
Thickness	2.54	2.59	2.60					
Weight in Air	1200.5	1221.0	1220.4					
Paraffin Coated Wt	Paraffin Coated Wt 1208.8 1231.1							
Weight in Water	eight in Water 691.1 700.1							
Vol. cc	508.5	519.8	517.8					
Sp. Gr.	2.361	2.349	2.357					
PCF	PCF 146.9 146.2							
Spec	2.356							
Weight pe	146.6							
	Air Voids (a	verage), %	3.9					

	CT 366 Stability												
2000	00 3000 4000 5000lbs (R) 6000 Turn Dial (T)												
14	4 20 28 36.0 48 2.56												
15	21	30	38.0	53	2.60	45							
15	15 22 31 38.0 55 2.58												
	Average Stability 46												

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Contact: Patrick Terrell Quality Control Manager II Phone: (858) 602-5474 Fax: (951) 684-3186

Project:	San D	)iego Coun	ty Overlay S	outh	Date Sampled:	4/6/2021
Material Description:	Combined RAP				Time Sampled:	530am
Material Source:		CCA La	akeside		Sampled By:	I. Montano
Sample Location:	Belt Cut				Date Tested:	4/6/2021
_ot #: Sublot #:		Tons Out:		Tested By:	I. Montano	

### **RECYCLED ASPHALT PRODUCT**

### MOISTURE CONTENT OF RAP (CTM 370)

Wet Weight: 3109.7 Dry Weight:	3058.2	RAP Moisture:	1.7%
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### SIEVE ANALYSIS OF POST IGNITION OVEN RAP (CTM 202)

Basket Mass	287	71.7	Basket + Sample		4385.2		HMA Sample Mass		1513.5	
Basket + Sample	Basket + Sample Burned		6.2	Burned A	Agg Mass	141	4.5	Approx. O	il % TWM	5.23

Siev	ve Size	Weight Retained (grams)	Percent Retained (%)	Percent Passing (%)	Correction Factor (%)	Corrected Percent Passing
2"	(50mm)	0	0.0%	100.0%	0.0	100.0%
1-1/2"	(37.5mm)	0	0.0%	100.0%	0.0	100.0%
1"	(25mm)	0	0.0%	100.0%	0.0	100.0%
3/4"	(19mm)	0	0.0%	100.0%	0.0	100.0%
1/2"	(12.5mm)	18.8	1.3%	98.7%	+0.2	98.9%
3/8"	(9.5mm)	112.4	7.9%	92.1%	+0.6	92.7%
#4	4.75mm)	394.8	27.9%	72.1%	-0.8	71.3%
#8	(2.36mm)	122.6	45.4%	54.6%	+0.5	55.1%
#16	(1.18mm)	212.4	58.3%	41.7%	-0.7	41.0%
#30	(600µm)	284.5	68.6%	31.4%	-0.6	30.8%
#50	(300µm)	356.3	78.8%	21.2%	-0.2	21.0%
#100	(150µm)	408	86.2%	13.8%	+0.3	14.1%
#200	(75µm)	439.1	90.7%	9.3%	+0.5	9.8%
Mass	of #4 Split	504.3				-

Approved By:

atrick

Patrick Terrell Quality Control Manager II



Contact: Patrick Terrell Quality Control Manager II Phone: (858) 602-5474 Fax: (858) 513-0612

Project:		San Diego County Overlay South						Date Sampled:	4/6/2021
Material Des	cription:	21212415 1/2" HMA-A w/25% RAP						Time Sampled:	900am
Material Source:		CCA Lakeside						Sampled By:	I. Montano
Sample Location:		Belt Cut						Date Tested:	4/6/2021
Tons Out:		Load #		Load # Lot # Sublot #				Tested By:	I. Montano

### SIEVE ANALYSIS (CTM 202)

						Aggregate %	RAP %
Wet Weight:	5382.1	Dry Weight:	5279.3	% Moisture:	1.95%	75%	25%

									Speci	fication
Sie	ve Size	Weight Retained	Percent Retained		x Agg %	RAP Pass	x RAP %	Total Percent Passing		wable rance
2"	(50mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1-1/2"	(37.5mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1"	(25mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
3/4"	(19mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	100	
1/2"	(12.5mm)	410.2	7.8%	92.2%	69.2%	98.9%	24.7%	94%	96	90-100
3/8"	(9.5mm)	1479.6	28.0%	72.0%	54.0%	92.7%	23.2%	77%	77	71-83
#4	(4.75mm)	2683.7	50.8%	49.2%	36.9%	71.3%	17.8%	55%	55	48-62

Fine Agg Dry Weight:

509.2

										Spe	cification
Si	ieve Size	Weight Retained	Percent Retained	Agg Pass	x #4	x Agg %	RAP Pass	x RAP %	Total Percent Passing		owable lerance
#8	(2.36mm)	100.3	20%	80%	39%	29.6%	55.1%	13.8%	43%	43	38-48
#16	(1.18mm)	178	35%	65%	32%	24.0%	41.0%	10.3%	34%	33	
#30	(600µm)	288.3	57%	43%	21%	16.0%	30.8%	7.7%	24%	22	17-25
#50	(300µm)	386.1	76%	24%	12%	8.9%	21.0%	5.2%	14%	13	
#100	(150µm)	445.2	87%	13%	6%	4.6%	14.1%	3.5%	8%	7	
#200	(75µm)	467.1	91.7%	8.3%	4.1%	3.0%	9.8%	2.5%	5.5%	4.4	2.4-6.4

### SAND EQUIVALENT (CTM 217)

Specimen Sand Clay Sand Number Reading Reading Equivalent 1 4.2 65 Specification 6.5 2 4.3 6.7 65 47 3 4.4 6.9 64 Average 65

Approved by:

atrick enel

Patrick Terrell Quality Control Manager II



Project:	San Diego County Overlay South			Date Sampled:	4/6/2021		
Міх Туре:	21212415 1/2" HMA-A w/25% RAP			Time Sampled:	955am Load #: 8		
Material Source:	CCA Lake	eside		Sampled By:	I. Montano		
Sample Location:	Truck Bed a	at Plant		Date Tested:	4/6/2	2021	
Ticket #:	1701253668	Tons Out:	149.03	Tested By:	I. Montano		

## ASPHALT BINDER CONTENT OF HMA BY THE IGNITION METHOD CALIFORNIA TEST METHOD 382

Calibration Information:								
Ignition Oven Identification: Thermolyne NCAT Serial #: 0151796801150209								
Set Point Temperature from Calibration: 🗹 538°C 🗆 482°C 🗆 427°C								
Total ignition time from calibration (minutes):       46 - 56 minutes								
Asphalt Binder type and source:	PG 58-34 Holly Frontier							
Aggregate Source:	Hanson Aggregates, Vigilante Mine							
Correction Factor, CF (%): 0.45%								

Ignition	Oven	Procedure
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Corrected Asphalt Content AC = A - CF - MC (%):	5.26%	5.55%				
Raw Aspahlt Content, A = ( $(M_i - M_f) \div M_i$ ) x 100 (%):	5.7	1%				
Final Mass of Sample Aggregate, $M_2$ - $M_e$ , $M_f$ (g)	147	1475.4				
Mass of Sample + Basket after burn off, $M_2$ (g):	435	4354.9				
Net Mass of of the Mixed Sample, $M_1$ - $M_{e_1}$ , $M_i$ (g):	156	4.7				
Mass of Mixed Sample + Basket, M <sub>1</sub> (g):	444	4.2				
Mass of Basket, M <sub>e</sub> (g):	287	2879.5				

Mix Moisture, MC	0		
Target by TWM:	5.39%	Allowable Range	5.09 - 5.89
Target by DWA:	5.70%	Allowable Range	5.36 - 6.26

Form:	CCA-T308
Rev. 1.1	9/29/2017

Approved By: Satrick, ener

Patrick Terrell - QC Manager II



Contact: Patrick Terrell Quality Control Manager II Phone: (858) 602-5474 Fax: (951) 684-3186

Project:	San D	)iego Coun	ty Overlay S	outh	Date Sampled:	4/6/2021		
Material Description:	Combined RAP				Time Sampled:	530am		
Material Source:		CCA Lakeside			Sampled By:	I. Montano		
Sample Location:		Belt Cut			Date Tested:	4/6/2021		
Lot #:	Sublot #:		Tons Out:		Tested By:	I. Montano		

### **RECYCLED ASPHALT PRODUCT**

### MOISTURE CONTENT OF RAP (CTM 370)

Wet Weight: 3109.7 Dry Weight:	3058.2	RAP Moisture:	1.7%
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### SIEVE ANALYSIS OF POST IGNITION OVEN RAP (CTM 202)

Basket Mass	287	71.7	Basket +	- Sample	438	5.2	HMA San	nple Mass	151	3.5
Basket + Sample	Burned	428	6.2	Burned A	Agg Mass	141	4.5	Approx. O	il % TWM	5.23

Sieve Size W		Weight Retained (grams)	Percent Retained (%)	Percent Passing (%)	Correction Factor (%)	Corrected Percent Passing
2"	(50mm) 0		0.0%	100.0%	0.0	100.0%
1-1/2"	(37.5mm)	0	0.0%	100.0%	0.0	100.0%
1"	(25mm)	0	0.0%	100.0%	0.0	100.0%
3/4"	(19mm)	0	0.0%	100.0%	0.0	100.0%
1/2"	(12.5mm)	18.8	1.3%	98.7%	+0.2	98.9%
3/8"	(9.5mm)	112.4	7.9%	92.1%	+0.6	92.7%
#4	4.75mm)	394.8	27.9%	72.1%	-0.8	71.3%
#8	(2.36mm)	122.6	45.4%	54.6%	+0.5	55.1%
#16	(1.18mm)	212.4	58.3%	41.7%	-0.7	41.0%
#30	(600µm)	284.5	68.6%	31.4%	-0.6	30.8%
#50	(300µm)	356.3	78.8%	21.2%	-0.2	21.0%
#100	(150µm)	408	86.2%	13.8%	+0.3	14.1%
#200	(75µm)	439.1	90.7%	9.3%	+0.5	9.8%
Mass	of #4 Split	504.3				-

Approved By:

atrick

Patrick Terrell Quality Control Manager II



Contact: Patrick Terrell Quality Control Manager II Phone: (858) 602-5474 Fax: (858) 513-0612

Project:		San Diego County Overlay South				Date Sampled:	4/6/2021		
Material Descript	ion:	21212415 1/2" HMA-A w/25% RAP			νP	Time Sampled:	535am		
Material Source:		CCA Lakeside				Sampled By:	I. Montano		
Sample Location	:	Belt Cut				Date Tested:	4/6/2021		
Tons Out:		Load #		Lot #		Sublot #		Tested By:	I. Montano

### SIEVE ANALYSIS (CTM 202)

						Aggregate %	RAP %
Wet Weight:	6782.5	Dry Weight:	6661.7	% Moisture:	1.81%	75%	25%

									Spec	ification
Sie	ve Size	Weight Retained	Percent Retained		x Agg %	RAP Pass	x RAP %	Total Percent Passing		wable erance
2"	(50mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1-1/2"	(37.5mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1"	(25mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
3/4"	(19mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	100	
1/2"	(12.5mm)	468.4	7.0%	93.0%	69.7%	98.9%	24.7%	94%	96	90-100
3/8"	(9.5mm)	1836.3	27.6%	72.4%	54.3%	92.7%	23.2%	77%	77	71-83
#4	(4.75mm)	3371.7	50.6%	49.4%	37.0%	71.3%	17.8%	55%	55	48-62

Fine Agg Dry Weight:

516.3

										Spe	cification
Si	ieve Size	Weight Retained	Percent Retained	Agg Pass	x #4	x Agg %	RAP Pass	x RAP %	Total Percent Passing		lowable lerance
#8	(2.36mm)	94	18%	82%	40%	30.3%	55.1%	13.8%	44%	43	38-48
#16	(1.18mm)	183.6	36%	64%	32%	23.9%	41.0%	10.3%	34%	33	
#30	(600µm)	295.4	57%	43%	21%	15.8%	30.8%	7.7%	24%	22	17-25
#50	(300µm)	402.2	78%	22%	11%	8.2%	21.0%	5.2%	13%	13	
#100	(150µm)	455.0	88%	12%	6%	4.4%	14.1%	3.5%	8%	7	
#200	(75µm)	476.8	92.3%	7.7%	3.8%	2.8%	9.8%	2.5%	5.3%	4.4	2.4-6.4

### SAND EQUIVALENT (CTM 217)

Specimen Sand Clay Sand Number Reading Reading Equivalent 1 4.0 62 Specification 6.5 2 4.1 63 6.5 47 3 4.3 6.9 63 Average 63

Approved by:

atuck enel

Patrick Terrell Quality Control Manager II



Project:	San Diego County Overlay South			Date Sampled:	4/6/2021		
Міх Туре:	21212415 1/2" HMA-A w/25% RAP			Time Sampled:	700am	Load #:	6
Material Source:	CCA Lakeside			Sampled By:	I. Montano		
Sample Location:	Truck Bed at Plant		Date Tested:	4/6/2021			
Ticket #:	1701253629	1701253629 Tons Out: 116.24		Tested By:	I. Montano		

## ASPHALT BINDER CONTENT OF HMA BY THE IGNITION METHOD CALIFORNIA TEST METHOD 382

Calibration Information:						
Ignition Oven Identification:	Thermolyne NCAT Serial #: 0151796801150209					
Set Point Temperature from Calibration:	☑ 538°C □ 482°C □ 427°C					
Total ignition time from calibration (minutes):	46 - 56 minutes					
Asphalt Binder type and source:	PG 58-16 San Joaquin					
Aggregate Source: Hanson Aggregates, Vigilante Mine						
Correction Factor, CF (%):	0.45%					

Ignition	Oven	Procedure	
5			

Mass of Basket, M <sub>e</sub> (g):	288	80.3				
Mass of Mixed Sample + Basket, M <sub>1</sub> (g):	443	31.0				
Net Mass of of the Mixed Sample, M <sub>1</sub> -M <sub>e,</sub> M <sub>i</sub> (g):	155	50.7				
Mass of Sample + Basket after burn off, $M_2$ (g):	433	4339.4				
Final Mass of Sample Aggregate, $M_2$ - $M_e$ , $M_f$ (g)	145	1459.1				
Raw Aspahlt Content, A = ( $(M_i - M_f) \div M_i$ ) x 100 (%):	5.9	91%				
Corrected Asphalt Content AC = A - CF - MC (%):	5.46%	5.77%				
	% by Total Weight of Mix	% by Dry Weight of Agg				
Mix Moisture, MC 0						

	0		
Target by TWM:	5.39%	Allowable Range	5.09 - 5.89
Target by DWA:	5.70%	Allowable Range	5.36 - 6.26

Form: CCA-T308 Rev. 1.1 9/29/2017

Approved By: Satrick, ener

Patrick Terrell - QC Manager II



Twining, Inc. - San Diego Lab 15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424

Daily Fie	ld Report	Report No: DFR:W	02-21-01370-O1		
-	•			Date of Issue: 04/08/2021	Issue No: 1
	TP Engineering Contracto			Project No: 200638.2	
	211 Ponderosa Avenue, S	Permit No:			
	an Diego, CA 92123	OSHPD: DSA File #:			
-	an Diego County Roads	alt Concrete Overlay South	DSA AP #:		
	an Diego, CA			D3A AF #.	
Distribution:				1	
				antest	
Jurisdiction: C	ounty of San Diego			Approved Signatory: Andrew	/ Suarez
Test Date:	Wednesday, April	7, 2021	Inspector:	Jose Franco-Casas	
Inspection No.:					
Contractor:	ATP General Engi	neering			
Equipment Obs	vibratory compacted		compactor, f) Dyna	c) Cat paver, d) Cat CB54B du apac CC4200 VI vibratory com ater truck.	
Time Arrived:	7:00 AM	Time Departed:	3:00 PM	Time on Site:	8 Hrs
Lunch Start:	11:15 AM	Lunch End:	11:45 AM	Travel Time:	2 Hrs
Mileage:	90.0	Weather:	Sunny		
Types of Testi	ng / Observations				
Asphalt - Field	Density Testing				
Referenced Do	ocuments				
<b>Observations</b>	/ Remarks				
Miles from Jobsit	e:_45 Travel to Jobsit	e (start):_6:00am Trav	el to Jobsite (end)	ar gauge, AC gear Miles to :_7:00am Travel from Jobsi ment Used: _CPN nuclear gau	ite
Picked up the de Upon arrival met asphalt concrete HMA 58-34M Typ East bound, app Observe a mech Asphalt concrete intermediate rolli vibratory roller. Conducted 34 A0 requirements, AT	ATP foreman Looney to , ATP utilized the followin be A, both mixture import roximately between Post anical broom sweeping the placement with a Cat part ng with a Cat CB7 vibrate C density test using a CF P representative was not	ng HMA mixtures ID: 212 ted from CCA-Lakeside F Mile 2 and Post Mile 3. he road prior tack coat ap aver, initial breakdown pe ory roller and final rolling PN MC-1DR-P Portaprobe otified.	rk for today. Contr. 12415F- 1/2" HMA Plant. This asphalt oplication. Informed with a Ca with a Dynapac C e nuclear gauge, th	actor continued the placement 58-34M w/Fiber and the mix concrete was placed on Skylin at CB54B dual smooth drums v C4200 VI vibratory compactor hese compaction test meet 95 634.31 tons and Mix 2121241	21212415- 1/2" ne Truck Trail at vibratory compactor, and a Cat CB44B % County



#### Twining, Inc. - San Diego Lab

15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424

Daily F	ield Report	Report No: DFR:W02-21-01370-01           Date of Issue: 04/08/2021         Issue No: 1
Customer:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA 92123	Project No: 200638.2 Permit No: OSHPD:
Project:	County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA	DSA File #: DSA AP #:
Distribution:		antst
Jurisdiction:	County of San Diego	Approved Signatory: Andrew Suarez

All inspections based on minimum of 4 hours and over 4 hours - 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.



Jose Franco-Casas, Inspector/Technician

#### Remarks:

This report will be distributed to architect, engineer, client, and governing jurisdiction (e.g. DSA) as required by applicable codes and project documents.

Certificate of Compliance		
The Work 🗹 Was 🗌 Was Not	The Work Inspected  Met Did Not Meet	Material Sampling
inspected in accordance with the requirements of the County of San Diego approved documents	the requirements of the County of San Diego approved documents	was not performed

All Reports Remain The Property of Twining, Inc. Authorization For The Publication Of Our Reports, Conclusions, Or Extracts From Or Regarding Them is Reserved Pending Our Written Approval As A Mutual Protection To Clients, The Public and Ourselves

		Twining, Inc San Diego Lab 15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424		
Daily Field Report		Report No: DFR:W02-21-01370-01           Date of Issue: 4/8/2021         Issue No: 1		
4211 Ponderosa Ave San Diego, CA, 9212	3 , Asphalt Concrete Overlay South	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:		
Jurisdiction: County of San Diego Distribution:		Approved Signatory: Andrew Suarez (Branch Manager)		



₩т\	VINING	<b>Twining, Inc San Diego Lab</b> 15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424
	eld Report	Report No: DFR:W02-21-01370-01           Date of Issue: 4/8/2021         Issue No: 1
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdiction Distribution	n: County of San Diego 1:	antest
		Approved Signatory: Andrew Suarez (Branch Manager)



₩т₩	INING	Twining, Inc San Diego Lab           15950 Bernardo Center Drive, Suite H           San Diego, CA 92127           Ph: 858-974-3750           Fax: 562.426.6424				
Daily Field		Report No: DFR:W02-21-01370-01           Date of Issue: 4/8/2021         Issue No: 1				
42 Sa Project: Co Sa	P Engineering Contractors (Lehigh Hanson) 11 Ponderosa Avenue, Suite C an Diego, CA, 92123 punty of San Diego, Asphalt Concrete Overlay South an Diego County Roads an Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:				
Jurisdiction: Co Distribution:	ounty of San Diego	antest				
		Approved Signatory: Andrew Suarez (Branch Manager)				





Contact: Patrick Terrell Quality Control Manager II Phone: (858) 602-5474 Fax: (951) 684-3186

Project:	San I	Diego Cour	ity Overlay S	South	Date Sampled:	4/7/2021		
Material Description	n:	Combined RAP			Time Sampled:	600am		
Material Source: CCA Lakeside				Sampled By:	I. Montano			
Sample Location:		Belt Cut			Date Tested:	4/7/2021		
Lot #:	Sublot #:		Tons Out:		Tested By:	I. Montano		

### **RECYCLED ASPHALT PRODUCT**

### MOISTURE CONTENT OF RAP (CTM 370)

Wet Weight: 3200.4 Dry Weight:	3138.7	RAP Moisture:	2.0%
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### SIEVE ANALYSIS OF POST IGNITION OVEN RAP (CTM 202)

Basket Mass	287	79.9	Basket +	- Sample	443	33.4	HMA San	nple Mass	155	3.5
Basket + Sample	Basket + Sample Burned		0.3	Burned A	Agg Mass	145	50.4	Approx. O	il % TWM	5.31

Sie	ve Size	Weight Retained (grams)	Percent Retained (%)	Percent Passing (%)	Correction Factor (%)	Corrected Percent Passing
2"	(50mm)	0	0.0%	100.0%	0.0	100.0%
1-1/2"	(37.5mm)	0	0.0%	100.0%	0.0	100.0%
1"	(25mm)	0	0.0%	100.0%	0.0	100.0%
3/4"	(19mm)	0	0.0%	100.0%	0.0	100.0%
1/2"	(12.5mm)	10.2	0.7%	99.3%	+0.2	99.5%
3/8"	(9.5mm)	90.8	6.3%	93.7%	+0.6	94.3%
#4	4.75mm)	369.2	25.5%	74.5%	-0.8	73.7%
#8	(2.36mm)	107.8	41.3%	58.7%	+0.5	59.2%
#16	(1.18mm)	195.5	54.3%	45.7%	-0.7	45.0%
#30	(600µm)	271.4	65.4%	34.6%	-0.6	34.0%
#50	(300µm)	348.4	76.8%	23.2%	-0.2	23.0%
#100	(150µm)	405.6	85.2%	14.8%	+0.3	15.1%
#200	(75µm)	440.1	90.3%	9.7%	+0.5	10.2%
Mass	of #4 Split	505.9				

Approved By:

atrick

Patrick Terrell Quality Control Manager II



**Contact: Patrick Terrell Quality Control Manager II** Phone: (858) 602-5474 Fax: (858) 513-0612

Project:		San Diego County Overlay South						Date Sampled:	4/7/2021
Material Description: 21212305 1/2" HMA-A w/25% RAP						w/25% RA	νP	Time Sampled:	800am
Material Sour	irce:	CCA Lakeside						Sampled By:	I. Montano
Sample Loca	Belt Cut						Date Tested:	4/7/2021	
Tons Out:		Load #		Lot #		Sublot #		Tested By:	I. Montano

### SIEVE ANALYSIS (CTM 202)

						Aggregate %	RAP %
Wet Weight:	5483.2	Dry Weight:	5388.0	% Moisture:	1.77%	75%	25%

									Spec	ification
Sie	ve Size	Weight Retained	Percent Retained		x Agg %			Total Percent Passing	Allowable Tolerance	
2"	(50mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1-1/2"	(37.5mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1"	(25mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
3/4"	(19mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	100	
1/2"	(12.5mm)	443.1	8.2%	91.8%	68.8%	99.5%	24.9%	94%	96	90-100
3/8"	(9.5mm)	1509.2	28.0%	72.0%	54.0%	94.3%	23.6%	78%	77	71-83
#4	(4.75mm)	2679.5	49.7%	50.3%	37.7%	73.7%	18.4%	56%	55	48-62

Fine Agg Dry Weight:

514.4

										Spe	cification
Sieve Size		Weight Retained	Percent Retained	Agg Pass	x #4	x Agg %	RAP Pass	x RAP %	Total Percent Passing	Allowable Tolerance	
#8	(2.36mm)	104.2	20%	80%	40%	30.1%	59.2%	14.8%	45%	43	38-48
#16	(1.18mm)	188.9	37%	63%	32%	23.9%	45.0%	11.3%	35%	33	
#30	(600µm)	302.2	59%	41%	21%	15.6%	34.0%	8.5%	24%	22	17-25
#50	(300µm)	400.8	78%	22%	11%	8.3%	23.0%	5.8%	14%	13	
#100	(150µm)	453.8	88%	12%	6%	4.4%	15.1%	3.8%	8%	7	
#200	(75µm)	476.7	92.7%	7.3%	3.7%	2.8%	10.2%	2.5%	5.3%	4.4	2.4-6.4

### SAND EQUIVALENT (CTM 217)

Approved by:

atrick enel

Patrick Terrell Quality Control Manager II

Specimen Number	Sand Reading	Clay Reading	Sand Equivalent		
1	4.0	6.4	63	Specification	
2	4.3	6.8	64	47	
3	4.1	6.5	63	47	
		Average	63		



Project:	San Diego County	Overlay Sou	uth	Date Sampled:	4/7/2021			
Міх Туре:	21212305 1/2" HM	A-A w/25%	RAP	Time Sampled:	929am Load #: 2			
Material Source:	CCA Lake	eside		Sampled By:	I. Montano			
Sample Location:	Truck Bed a	at Plant		Date Tested:	4/7/2	4/7/2021		
Ticket #:	1701253745	Tons Out:	38.74	Tested By:	I. Montano			

## ASPHALT BINDER CONTENT OF HMA BY THE IGNITION METHOD CALIFORNIA TEST METHOD 382

Са	libration Information:
Ignition Oven Identification:	Thermolyne NCAT Serial #: 0151796801150209
Set Point Temperature from Calibration:	☑ 538°C
Total ignition time from calibration (minutes):	46 - 56 minutes
Asphalt Binder type and source:	PG 58-16 San Joaquin
Aggregate Source:	Hanson Aggregates, Vigilante Mine
Correction Factor, CF (%):	0.45%

	<b>•</b> • •	<b>D</b>
Ignition	Oven	Procedure

	% by Total Weight of Mix	% by Dry Weight of Agg				
Corrected Asphalt Content AC = A - CF - MC (%):	5.17%	5.45%				
Raw Aspahlt Content, A = ( $(M_i - M_f) \div M_i$ ) x 100 (%):	5.6	32%				
Final Mass of Sample Aggregate, $M_2$ - $M_e$ , $M_f$ (g)	14:	38.4				
Mass of Sample + Basket after burn off, $M_2$ (g):	4404.0         1524.0         4318.4         1438.4         5.62%         5.17%	18.4				
Net Mass of of the Mixed Sample, $M_1$ - $M_{e_i}$ , $M_i$ (g):	152	24.0				
Mass of Mixed Sample + Basket, M <sub>1</sub> (g):	44	04.0				
Mass of Basket, M <sub>e</sub> (g):	288	2880.0				

wix woisture, wc	0		
Target by TWM:	5.39%	Allowable Range	5.09 - 5.89
Target by DWA:	5.70%	Allowable Range	5.36 - 6.26

Form: CCA-T308 Rev. 1.1 9/29/2017

Approved By: Satrick ener

Patrick Terrell - QC Manager II



Contact: Patrick Terrell Quality Control Manager II Phone: (858) 602-5474 Fax: (951) 684-3186

Project:	Project: San Diego County Overlay South		South	Date Sampled:	4/7/2021			
Material Description: Combined RAP				Time Sampled:	600am			
Material Source: CCA Lakeside			Sampled By:	I. Montano				
Sample Location:		Belt Cut			Date Tested:	4/7/2021		
Lot #:	Sublot #:		Tons Out:		Tested By:	I. Montano		

### **RECYCLED ASPHALT PRODUCT**

### MOISTURE CONTENT OF RAP (CTM 370)

Wet Weight: 3200.4 Dry Weight:	3138.7	RAP Moisture:	2.0%
--------------------------------	--------	---------------	------

### SIEVE ANALYSIS OF POST IGNITION OVEN RAP (CTM 202)

Basket Mass	287	79.9	Basket +	- Sample	Sample 443		3.4 HMA Sam		155	53.5	
Basket + Sample	Burned	433	0.3	Burned A	Agg Mass	145	50.4	Approx. O	il % TWM	5.31	

Sie	ve Size	Weight Retained (grams)	Percent Retained (%)	Percent Passing (%)	Correction Factor (%)	Corrected Percent Passing
2"	(50mm)	0	0.0%	100.0%	0.0	100.0%
1-1/2"	(37.5mm)	0	0.0%	100.0%	0.0	100.0%
1"	(25mm)	0	0.0%	100.0%	0.0	100.0%
3/4"	4" (19mm) 0		0.0%	100.0%	0.0	100.0%
1/2"	2" (12.5mm) 10.2		0.7%	99.3%	+0.2	99.5%
3/8"	(9.5mm)	90.8	6.3%	93.7%	+0.6	94.3%
#4	4.75mm)	369.2	25.5%	74.5%	-0.8	73.7%
#8	(2.36mm)	107.8	41.3%	58.7%	+0.5	59.2%
#16	(1.18mm)	195.5	54.3%	45.7%	-0.7	45.0%
#30	(600µm)	271.4	65.4%	34.6%	-0.6	34.0%
#50	(300µm)	348.4	76.8%	23.2%	-0.2	23.0%
#100	(150µm)	405.6	85.2%	14.8%	+0.3	15.1%
#200	(75µm)	440.1	90.3%	9.7%	+0.5	10.2%
Mass	of #4 Split	505.9				

Approved By:

atrick

Patrick Terrell Quality Control Manager II



Contact: Patrick Terrell Quality Control Manager II Phone: (858) 602-5474 Fax: (858) 513-0612

Project:		San Diego County Overlay South						Date Sampled:	4/7/2021
Material Des	scription:	21212415 1/2" HMA-A w/25% RAP					νP	Time Sampled:	555am
Material Sou	ırce:	CCA Lakeside				;		Sampled By:	I. Montano
Sample Loca	ation:			Belt	Cut			Date Tested:	4/7/2021
Tons Out:		Load #		Lot #		Sublot #		Tested By:	I. Montano

### SIEVE ANALYSIS (CTM 202)

						Aggregate %	RAP %	
Wet Weight:	5498.7	Dry Weight:	5406.3	% Moisture:	1.71%	75%	25%	

									Spec	ification
Sie	ve Size	Weight Retained	Percent Retained		x Agg %	RAP Pass	x RAP %	Total Percent Passing		wable erance
2"	(50mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1-1/2"	(37.5mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1"	(25mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
3/4"	(19mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	100	
1/2"	(12.5mm)	513.5	9.5%	90.5%	67.9%	99.5%	24.9%	93%	96	90-100
3/8"	(9.5mm)	1473.7	27.3%	72.7%	54.6%	94.3%	23.6%	78%	77	71-83
#4	(4.75mm)	2804	51.9%	48.1%	36.1%	73.7%	18.4%	55%	55	48-62

Fine Agg Dry Weight:

521.3

										Spe	cification
Si	eve Size	Weight Retained	Percent Retained	Agg Pass	x #4	x Agg %	RAP Pass	x RAP %	Total Percent Passing		lowable lerance
#8	(2.36mm)	99.7	19%	81%	39%	29.2%	59.2%	14.8%	44%	43	38-48
#16	(1.18mm)	196	38%	62%	30%	22.5%	45.0%	11.3%	34%	33	
#30	(600µm)	312.9	60%	40%	19%	14.4%	34.0%	8.5%	23%	22	17-25
#50	(300µm)	418	80%	20%	10%	7.2%	23.0%	5.8%	13%	13	
#100	(150µm)	467.1	90%	10%	5%	3.8%	15.1%	3.8%	8%	7	
#200	(75µm)	487.1	93.4%	6.6%	3.2%	2.4%	10.2%	2.5%	4.9%	4.4	2.4-6.4

### SAND EQUIVALENT (CTM 217)

Approved by:

atrick enel

Patrick Terrell Quality Control Manager II

Specimen Number	Sand Reading	Clay Reading	Sand Equivalent	
1	4.2	6.5	65	Specification
2	4.4	7.0	63	47
3	4.2	6.6	64	47
		Average	64	



Project:	San Diego County Overlay South		Date Sampled:	4/7/2021			
Міх Туре:	21212415F 1/2" HN	/IA-A w/25%	v/25% RAP Time Sampled: 702am Load #:		7		
Material Source:	CCA Lakeside		Sampled By:	I. Montano			
Sample Location:	Truck Bed a	at Plant		Date Tested:	4/7/2021		
Ticket #:	1701253709	Tons Out:	131.84	Tested By:	I. Montano		

## ASPHALT BINDER CONTENT OF HMA BY THE IGNITION METHOD CALIFORNIA TEST METHOD 382

Calibration Information:							
Ignition Oven Identification:	Thermolyne NCAT Serial #: 0151796801150209						
Set Point Temperature from Calibration:	☑ 538°C						
Total ignition time from calibration (minutes):	46 - 56 minutes						
Asphalt Binder type and source:	PG 58-34 Holly						
Aggregate Source: Hanson Aggregates, Vigilante Mine							
Correction Factor, CF (%): 0.45%							

Ignition	Oven	Procedure
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	% by Total Weight of Mix	% by Dry Weight of Agg				
Corrected Asphalt Content AC = A - CF - MC (%):	5.44%	5.75%				
Raw Aspahlt Content, A = ( $(M_i - M_f) \div M_i$ ) x 100 (%):	5.8	9%				
Final Mass of Sample Aggregate, $M_2$ - $M_e$ , $M_f$ (g)	146	1469.6				
Mass of Sample + Basket after burn off, $M_2$ (g):	434	4349.9				
Net Mass of of the Mixed Sample, $M_1$ - $M_{e_1}$ , $M_i$ (g):	156	51.6				
Mass of Mixed Sample + Basket, M <sub>1</sub> (g):	444	1.9				
Mass of Basket, M <sub>e</sub> (g):	288	2880.3				

	0		
Target by TWM:	5.39%	Allowable Range	5.09 - 5.89
Target by DWA:	5.70%	Allowable Range	5.36 - 6.26

Form: CCA-T308 Rev. 1.1 9/29/2017

Approved By: Satrick

Patrick Terrell - QC Manager II

### COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS ASPHALT CONCRETE DAILY TEST SUMMARY REPORT

Project Name:	Asphalt Concrete Ove	erlay South FY 19/	W.A. # :	1023466	
Sample Date:	4/6/2021	Plant:	CCA-LS	Lab. No. :	21-291
HMA Mix :	1/2" type A	Percent Oil:	5.4	Oil Type:	PG58-34M w/Fiber
Sample Location:	Skyline Truck trail			Mix ID #:	

	AG	GREGATES	MATERIALS		ASF	PHALT COM	<u>NCRETE</u>	
A. <u>Grad</u>	ling After Extr	action (CT 20	<u>02)</u>		B. <u>Oil Content</u>	<u>(CT 382)</u>		
Sar	mple Weight:	not tested			F	Percent Oil:	5.70	
SIZE SIEVE	WEIGHT		PERCENT	SPEC'S.	C. <u>Bulk Specifi</u>		-	
<u> </u>	RETAINED	RETAINED	PASSING		Ave. Bulk S	Sp. Gravity:	2.353	
1"	0	0	0	0				
1/2"	0	0	0	0	D. <u>Maximum S</u>	Specific Gtra	<u>avity (CT3</u>	<u>09)</u>
3/8"	0	0	0	0	Max. Sp. Gravity: <u>2.439</u>			
#4	0	0	0	0	E. <u>Air Voids</u>			
#8	0	0	0	0	Percer	nt Air Voids	3.5	
#16	0	0	0	0	F. <u>Stabilomete</u>	er Value (CT	<u>Г 366)</u>	
#30	0	0	0	0	Sample	A	В	С
					Sample ht.	2.50	2.50	2.50
#50	0	0	0	0	Hor. Press.	48	50	42
					Hor. Displ.	2.76	2.88	3.11
#100	0	0	0	0	Stability	37	36	38
#200	0	0	0	0	Ave. Stability:	37	Spec's:	37
Remark	(S:				<u> </u>			

Form 23 (Rev. 7/20)

Prepared By:

R. Valles

Date: 4/8/2021

### COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS ASPHALT CONCRETE DAILY TEST SUMMARY REPORT

Project Name:	Asphalt Concrete Over	W.A. # :	1023466		
Sample Date:	4/8/2021	Plant:	CCA-LS	Lab. No. :	21-302
HMA Mix :	1/2" type A	Percent Oil:	5.4	Oil Type:	PG58-34M
Sample Location:	Skyline Truck trail			Mix ID #:	

	<u>AG</u>	GREGATES	MATERIALS	<u>-</u>	ASP	HALT CO	NCRETE	
A. <u>Grad</u>	ling After Extr	action (CT 20	<u>)2)</u>		B. <u>Oil Content</u>	(CT 382)		
Sar	nple Weight:	not tested			Р	ercent Oil:	5.50	
SIZE SIEVE	WEIGHT		PERCENT	SPEC'S.	C. <u>Bulk Specifi</u>		-	
		RETAINED	PASSING		Ave. Bulk S	p. Gravity.	2.303	
1"	0	0	0	0				
1/2"	0	0	0	0	D. <u>Maximum S</u>	pecific Gtra	avity (CT3	<u>09)</u>
3/8"	0	0	0	0	Max. S	p. Gravity:	2.452	
#4	0	0	0	0	E. Air Voids			
#8	0	0	0	0	Percent Air Voids 3.6			
#16	0	0	0	0	F. <u>Stabilomete</u> i			
#30	0	0	0	0		```	, 	
					Sample	A	B	C
#50	0	0	0	0	Sample ht. Hor. Press.	2.50 43	2.50 48	2.52 46
					Hor. Displ.	2.61	2.58	2.65
#100	0	0	0	0	Stability	41	39	39
#200	0	0	0	0	Ave. Stability:	40	Spec's:	37
Remark	(S:							

Form 23 (Rev. 7/20)

Prepared By:

R. Valles

Date: 4/13/2021

Location 3



Twining, Inc. - San Diego Lab 15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424

Daily Field Report						Report No: DFR: Date of Issue: 05/07/202			
Customer:		ngineering Contracto	rs (Lehigh Hanson)		P	Project No: 200638.2	1	Issue No: 1	
	4211 P	onderosa Avenue, S	uite C		P	Permit No:			
	San Di	ego, CA 92123			c	SHPD:			
Project:	County	of San Diego, Aspha	D	SA File #:					
	San Di	ego County Roads			D	SA AP #:			
	San Di	ego, CA							
Distribution:					l	antes			
Jurisdiction:	County	of San Diego			A	opproved Signatory: Andr	ew Suare	Z	
Test Date:		Tuesday, May 4, 2	2021	Inspector:	Jose	Franco-Casas			
Inspection No	D.:								
Contractor:		ATP General Engi	neering						
Equipment O	bsv.:	,	distributor truck, b) Cat pa vibratory roller, e) Cat CE				•		
Time Arrived:	:	7:15 AM	Time Departed:	3:45 PM		Time on Site:	8.5 I	Hrs	
Lunch Start:		11:15 AM	Lunch End:	11:45 AM		Travel Time:	2 Hr	S	
Mileage:		62.0	Weather:	Sunny					
Types of Te	sting /	Observations							
Asphalt - Fie	eld Dens	sity Testing							
Referenced	Docun	nents							
Observation							1	haita 01	
Miles from Job	osite:_3	1 Travel to Jobsite	Reason for Travel:_Transp e (start):_6:15 am Trav _ Expenses: Ec	el to Jobsite (en	nd):_7:1	5 am Travel from Jo			
Picked up the gear and truck 2 HMA, the first were imported streets Saint C Observe a dis CB44B smoot CB7 double dr opted to waive Conducted 28 ATP represent	density from the st AC M I from C George S tributor h drums rums vite compa AC con tative wa	ie San Diego office. ix was 21212305//1, CA-Lakeside Plant. Street approx betwee truck applied tack co oratory compactor. Continue poor subgen paction test using a as notified.	Met ATP foreman Loone /2" HMA Type A and then The first AC Mix was plac een Sweetwater Rd and S oat. Asphalt concrete plac or, intermediate rolling wit Dn Heil Street EB-West al grade. a CPN MC-1DR-P Portap Mix 21212305 approx 190	the Mix 212123 ced on Saint Geo aint George Pl, I cement with a Ca h a Dynapac CC nd Safford Aven robe nuclear, the	B05F//1/ eorge Co Hiel Str cat pave C1200 v nue NB	/2" HMA 58-34M Type ourt and the fiber Mix of reet, Adriana Street an er, initial breakdown pe vibratory roller, and fina have some segments nsity test meet 95% Co	A w/fibe on the fo d Saffor rformed al rolling unstable	er, both mixes llowing d Avenue. with a Cat with a Cat e, contractor	



#### Twining, Inc. - San Diego Lab

15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424

Daily Field Report		Report No: DFR:W02-21-01771-01           Date of Issue: 05/07/2021         Issue No: 1
Customer:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C	Project No: 200638.2 Permit No:
Project:	San Diego, CA 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads	OSHPD: DSA File #: DSA AP #:
Distribution:	San Diego, CA	
		antst
Jurisdiction:	County of San Diego	Approved Signatory: Andrew Suarez

All inspections based on minimum of 4 hours and over 4 hours - 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.



Jose Franco-Casas, Inspector/Technician

#### Remarks:

This report will be distributed to architect, engineer, client, and governing jurisdiction (e.g. DSA) as required by applicable codes and project documents.

Certificate of Compliance				
The Work 🗹 Was 🗌 Was Not	The Work Inspected  Met Did Not Meet	Material Sampling		
inspected in accordance with the requirements of the County of San Diego approved documents	the requirements of the County of San Diego approved documents	was not performed		

All Reports Remain The Property of Twining, Inc. Authorization For The Publication Of Our Reports, Conclusions, Or Extracts From Or Regarding Them is Reserved Pending Our Written Approval As A Mutual Protection To Clients, The Public and Ourselves

₩т\	WINING	<b>Twining, Inc San Diego Lab</b> 15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424
Daily Field Report		Report No: DFR:W02-21-01771-01           Date of Issue: 5/7/2021         Issue No: 1
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdiction: County of San Diego Distribution:		Approved Signatory: Andrew Suarez (Branch Manager)
		1



	VINING Id Report	Twining, Inc San Diego Lab           15950 Bernardo Center Drive, Suite H           San Diego, CA 92127           Ph: 858-974-3750           Fax: 562.426.6424           Report No: DFR:W02-21-01771-O1           Date of Issue: 5/7/2021
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdictior Distribution	i: County of San Diego :	Approved Signatory: Andrew Suarez (Branch Manager)



	VINING eld Report	Twining, Inc San Diego Lab           15950 Bernardo Center Drive, Suite H           San Diego, CA 92127           Ph: 858-974-3750           Fax: 562.426.6424           Report No: DFR:W02-21-01771-01           Date of Issue: 5/7/2021         Issue No: 1
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdictior Distributior	i: County of San Diego :	Approved Signatory: Andrew Suarez (Branch Manager)



	<b>VINING</b> eld Report	Report No: DFR:W02-21-01771-O1           Date of Issue: 5/7/2021
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdiction Distribution	n: County of San Diego n:	Approved Signatory: Andrew Suarez (Branch Manager)



Twining, Inc. - San Diego Lab 15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Exercise 2426 6404

		Fax: 562.426.6424
Asphalt	Nuclear Density Report	Report No: ND:W02-21-01771           Date of Issue: 5/7/2021         Issue No: 1
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdictior Distribution	ո։ County of San Diego ո։	Approved Signatory: Andrew Suarez (Branch Manager)

Testing Details			
Tested By:	Jose Franco-Casas	Date Tested:	5/4/2021
Plant:	Lakeside	Gauge Make/Model:	
Method of Measurement:	Backscatter	Density Standard Count:	36476
Gauge Serial:		Moisture Standard Count:	8300
Calibration Date:		Weather:	Sunny
Calibration Source:			

Tes	t Results	S										ASTM	D 2950
Test No	Road	Station	Offset (ft)	From	Mix	Lift	Layer Thickness (in)	Count Rate	MLD (lb/ft³)	In Situ Density (Ib/ft³)	Comp (%)	Limit (%)	Results
Appr	ox.Test Lo	cation: L	a Presa/Spr	ing Valley,	Ca.								
1	933 Saint George Court	NA	12.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.10	139.40	95	≥95	Р
2	917 Saint George Court	NA	6.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.10	142.20	97	≥95	Р
3	901 Saint George Court	NA	8.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.10	138.90	95	≥95	Р
4	942 Saint George Court	NA	12.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.10	139.00	95	≥95	Р
5	926 Saint George Court	NA	10.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.10	138.20	95	≥95	Р
6	926 Saint George Court	NA	8.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.10	138.30	95	≥95	Р
7	866 Saint George St	NA	6.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.70	141.50	96	≥95	Р
8	8707 Saint George St	NA	10.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.70	140.90	96	≥95	Р
9	8723 Saint George St	NA	10.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.70	140.10	96	≥95	Р

Asp		/ININ luclear D		Report					15950 Beri San Diego. Ph: 858-97 Fax: 562.4	4-3750 26.6424	Drive, Suite	H ND:W02-2	21-01771 ssue No: 1
Cust Proje	:	ATP Enginee 4211 Ponder San Diego, C County of Sa	osa Avenue CA, 92123	, Suite C		Project No.: 200638.2 Permit No.: OSHPD:							
	:	San Diego C San Diego, C	ounty Roads		,				DSA File				
Jurisdiction: County of San Diego Distribution:									Approved Sig	gnatory: Andrew S	Guarez (Branch	Manager)	2
Τος	t Resu	lte									·	ASTM	D 2950
Test No	Road	Station	Offset (ft)	From	Mix	Lift	Layer Thickness (in)	Count Rate	MLD (lb/ft³)	In Situ Density (Ib/ft³)	Comp (%)	Limit (%)	Results
Appr	ox.Test	Location: L	₋a Presa/Spr	ing Valley,	Ca.								
10	8747 Sa George S	NA	6.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.70	140.60	96	≥95	Р
11	8747 Sa George S	NIA	8.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.70	139.90	95	≥95	Р
12	8806 Sa George S		10.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.70	139.40	95	≥95	Р
13	8860 Sa George S		10.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.70	139.60	95	≥95	Р
14	8784 He Street	<sup>eil</sup> NA	8.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.70	138.80	95	≥95	Р
15	8760 He Street	<sup>eil</sup> NA	8.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.70	138.70	95	≥95	Р
16	8720 He Street		8.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.70	138.90	95	≥95	Р
17	8753 Adriana Street		8.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.70	139.20	95	≥95	Р
18	8729 Adriana Street		8.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.70	138.90	95	≥95	Р
19	8705 Adriana Street		6.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.70	138.80	95	≥95	Р
20	704 Safford Avenue		6.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.70	139.80	95	≥95	Р
21	728 Safforc Avenue		8.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.70	139.60	95	≥95	Р

	тw		١G							4-3750 26.6424	Drive, Suite	Н	
Asp	halt N	uclear D	ensity F	Report					Date of Iss	Re sue: 5/7/2021	port No:	ND:W02-2	21-01771 ssue No: 1
Custo Proje	4 Sect: 0 S	ATP Enginee 4211 Ponder San Diego, C County of Sa San Diego C San Diego, C	osa Avenue XA, 92123 n Diego, As ounty Roads	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:									
	diction: ( ibution:	County of Sa	ın Diego						Approved Sig	anatory: Andrew S	And Suarez (Branch	Manager)	ê
Tos	t Resu	lte										ASTM	D 2950
Test No	Road	Station	Offset (ft)	From	Mix	Lift	Layer Thickness (in)	Count Rate	MLD (lb/ft³)	In Situ Density (Ib/ft³)	Comp (%)	Limit (%)	Results
Appr	ox.Test I	_ocation: 1	_a Presa/Spr	ing Valley,	Ca.								
22	744 Safford Avenue	NA	8.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.70	138.90	95	≥95	Р
23	768 Safford Avenue		8.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.70	140.20	96	≥95	Р
24	818 Safford Avenue		6.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.70	140.10	96	≥95	Р
25	842 Safford Avenue		6.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.70	139.20	95	≥95	Р
26	866 Safford Avenue		6.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.70	138.80	95	≥95	Р
27	8783 He Street	il NA	8.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.70	139.30	95	≥95	Р
28	8759 He Street	eil NA	6.0	Centerline	21212305 / 1/2" HMA TYPE A	1	2.0	1 min.	146.70	139.70	95	≥95	Р



Project:	San I	Diego Cour	ity Overlay S	outh	Date Sampled:	5/4/2021		
Material Description	n:	Combin	ied RAP		Time Sampled:	600am		
Material Source:		CCA L	akeside		Sampled By:	I. Montano		
Sample Location:		Belt Cut			Date Tested:	5/4/2021		
Lot #:	.ot #: Sublot #:		Tons Out:		Tested By:	I. Montano		

### **RECYCLED ASPHALT PRODUCT**

### MOISTURE CONTENT OF RAP (CTM 370)

Wet Weight: 3251.2 Dry Weight:	3178.0	RAP Moisture:	2.3%
--------------------------------	--------	---------------	------

# SIEVE ANALYSIS OF POST IGNITION OVEN RAP (CTM 202)

Basket Mass	288	31.2	Basket +	Sample	443	7.5 HMA Sam		nple Mass	155	6.3
Basket + Sample	Basket + Sample Burned		37.2	Burned A	Agg Mass	145	56.0	Approx. O	il % TWM	5.16

Sie	ve Size	Weight Retained (grams)	Percent Retained (%)	Percent Passing (%)	Correction Factor (%)	Corrected Percent Passing
2"	(50mm)	0	0.0%	100.0%	0.0	100.0%
1-1/2"	(37.5mm)	0	0.0%	100.0%	0.0	100.0%
1"	(25mm)	0	0.0%	100.0%	0.0	100.0%
3/4"	(19mm)	0	0.0%	100.0%	0.0	100.0%
1/2"	(12.5mm)	2.5	0.2%	99.8%	+0.2	100.0%
3/8"	(9.5mm)	81.9	5.6%	94.4%	+0.6	95.0%
#4	4.75mm)	376.9	25.9%	74.1%	-0.8	73.3%
#8	(2.36mm)	107.6	41.7%	58.3%	+0.5	58.8%
#16	(1.18mm)	199	55.1%	44.9%	-0.7	44.2%
#30	(600µm)	275	66.3%	33.7%	-0.6	33.1%
#50	(300µm)	350.4	77.4%	22.6%	-0.2	22.4%
#100	(150µm)	405.6	85.5%	14.5%	+0.3	14.8%
#200	(75µm)	439.7	90.5%	9.5%	+0.5	10.0%
Mass	of #4 Split	504.1				=

Approved By:

atrick

Patrick Terrell Quality Control Manager II



Project:		San Diego County Overlay South						Date Sampled:	5/4/2021
Material De	scription:	21212305 FIBER 1/2" HMA-A w/25% RAP						Time Sampled:	600am
Material So	Material Source: CCA Lakeside				9	Sampled By:	I. Montano		
Sample Loc	Sample Location: Belt Cut			Date Tested:	5/4/2021				
Tons Out:		Load #		Lot #		Sublot #		Tested By:	I. Montano

# SIEVE ANALYSIS (CTM 202)

						Aggregate %	RAP %	
Wet Weight:	4857.4	Dry Weight:	4789.9	% Moisture:	1.41%	75%	25%	

									Spec	ification
Sie	SIEVE SIZE		Weight Percent Retained Retained		x Agg %	RAP Pass	x RAP %	Total Percent Passing	Allowable Tolerance	
2"	(50mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1-1/2"	(37.5mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1"	(25mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
3/4"	(19mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	100	
1/2"	(12.5mm)	337.4	7.0%	93.0%	69.7%	100.0%	25.0%	95%	96	90-100
3/8"	(9.5mm)	1282	26.8%	73.2%	54.9%	95.0%	23.7%	79%	77	71-83
#4	(4.75mm)	2461.2	51.4%	48.6%	36.5%	73.3%	18.3%	55%	55	48-62

Fine Agg Dry Weight:

511.3

										Spe	cification
s	ieve Size	Weight Retained	Percent Retained	Agg Pass	x #4	x Agg %	RAP Pass	x RAP %	Total Percent Passing		owable lerance
#8	(2.36mm)	123.6	24%	76%	37%	27.6%	58.8%	14.7%	42%	43	38-48
#16	(1.18mm)	221	43%	57%	28%	20.7%	44.2%	11.0%	32%	33	
#30	(600µm)	329.4	64%	36%	17%	13.0%	33.1%	8.3%	21%	22	17-25
#50	(300µm)	419.6	82%	18%	9%	6.5%	22.4%	5.6%	12%	13	
#100	(150µm)	460.3	90%	10%	5%	3.6%	14.8%	3.7%	7%	7	
#200	(75µm)	478.6	93.6%	6.4%	3.1%	2.3%	10.0%	2.5%	4.8%	4.4	2.4-6.4

# SAND EQUIVALENT (CTM 217)

Specimen Sand Clay Sand Number Reading Reading Equivalent 1 4.0 61 Specification 6.6 2 4.2 62 6.8 47 3 4.4 7.1 62 Average 62

Approved by:

atrick enel

Patrick Terrell Quality Control Manager II



Project:	San Diego County	Overlay So	uth	Date Sampled:	5/4/2021		
Міх Туре:	21212305 FIBER 1/2"	HMA-A w/2	5% RAP	Time Sampled:	811am	Load #:	8
Material Source:	CCA Lake	eside		Sampled By:	I. Montano		
Sample Location:	Truck Bed a	at Plant		Date Tested:	5/4/2021		
Ticket #:	1701254986	Tons Out:	159.45	Tested By:	I. Montano		

Calibration Information:								
Ignition Oven Identification:	Thermolyne NCAT Serial #: 0151796801150209							
Set Point Temperature from Calibration:	☑ 538°C							
Total ignition time from calibration (minutes):	46 - 56 minutes							
Asphalt Binder type and source:	PG 58-34 Holly							
Aggregate Source:	Hanson Aggregates, Vigilante Mine							
Correction Factor, CF (%):	0.45%							

	% by Total Weight of Mix	% by Dry Weight of Agg				
Corrected Asphalt Content AC = A - CF - MC (%):	5.52%	5.85%				
Raw Aspahlt Content, A = ( $(M_i - M_f) \div M_i$ ) x 100 (%):	5.9	)7%				
Final Mass of Sample Aggregate, $M_2$ - $M_e$ , $M_f$ (g)	142	4310.3 1428.9				
Mass of Sample + Basket after burn off, $M_2$ (g):	431					
Net Mass of of the Mixed Sample, $M_1$ - $M_{e_i}$ , $M_i$ (g):	15'	19.7				
Mass of Mixed Sample + Basket, M <sub>1</sub> (g):	44(	01.1				
Mass of Basket, M <sub>e</sub> (g):	288	2881.4				

	0		
Target by TWM:	5.39%	Allowable Range	5.09 - 5.89
Target by DWA:	5.70%	Allowable Range	5.36 - 6.26

Form: CCA-T308 Rev. 1.1 9/29/2017

Approved By: Datrick ener

Patrick Terrell - QC Manager II



Project:		San Diego County Overlay South						Date Sampled:	5/4/2021
Material De	scription:	21212305 FIBER 1/2" HMA-A w/25% RAP						Time Sampled:	1000am
Material So	Material Source: CCA Lakeside				;	Sampled By:	I. Montano		
Sample Loo	Sample Location: Belt Cut				Date Tested:	5/4/2021			
Tons Out:		Load #		Lot #		Sublot #		Tested By:	I. Montano

#### SIEVE ANALYSIS (CTM 202)

						Aggregate %	RAP %	
Wet Weight:	5721.2	Dry Weight:	5639.9	% Moisture:	1.44%	75%	25%	

									Spec	cification
Sieve Size		Weight Retained	Percent Retained		x Agg %	RAP Pass	x RAP %	Total Percent Passing		owable erance
2"	(50mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1-1/2"	(37.5mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1"	(25mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
3/4"	(19mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	100	
1/2"	(12.5mm)	374.6	6.6%	93.4%	70.0%	100.0%	25.0%	95%	96	90-100
3/8"	(9.5mm)	1384.2	24.5%	75.5%	56.6%	95.0%	23.7%	80%	77	71-83
#4	(4.75mm)	2840.4	50.4%	49.6%	37.2%	73.3%	18.3%	56%	55	48-62

Fine Agg Dry Weight:

518.3

										Spe	cification
Si	ieve Size	Weight Retained	Percent Retained	Agg Pass	x #4	x Agg %	RAP Pass	x RAP %	Total Percent Passing	Allowable Tolerance	
#8	(2.36mm)	129.4	25%	75%	37%	27.9%	58.8%	14.7%	43%	43	38-48
#16	(1.18mm)	230.5	44%	56%	28%	20.7%	44.2%	11.0%	32%	33	
#30	(600µm)	337.8	65%	35%	17%	13.0%	33.1%	8.3%	21%	22	17-25
#50	(300µm)	412.5	80%	20%	10%	7.6%	22.4%	5.6%	13%	13	
#100	(150µm)	454.3	88%	12%	6%	4.6%	14.8%	3.7%	8%	7	
#200	(75µm)	481.2	92.8%	7.2%	3.6%	2.7%	10.0%	2.5%	5.2%	4.4	2.4-6.4

# SAND EQUIVALENT (CTM 217)

Specimen Sand Clay Sand Number Reading Reading Equivalent 1 4.4 7.2 62 Specification 2 7.0 62 4.3 47 3 4.4 7.1 62 Average 62

Approved by:

enel atuck

Patrick Terrell Quality Control Manager II



Project:	San Diego County	Overlay So	uth	Date Sampled:	5/4/2021			
Міх Туре:	21212305 FIBER 1/2"	HMA-A w/2	5% RAP	Time Sampled:	1102am	Load #:	41	
Material Source:	CCA Lak	eside		Sampled By:	I. Montano			
Sample Location:	Truck Bed a	at Plant		Date Tested:	5/4/2021			
Ticket #:	1701255030 Tons Out: 788.63		Tested By:	I. Montano				

Calibration Information:										
Ignition Oven Identification:	Thermolyne NCAT Serial #: 0151796801150209									
Set Point Temperature from Calibration:	☑ 538°C									
Total ignition time from calibration (minutes):	46 - 56 minutes									
Asphalt Binder type and source:	PG 58-34 Holly									
Aggregate Source:	Hanson Aggregates, Vigilante Mine									
Correction Factor, CF (%):	0.45%									

Mass of Basket, M <sub>e</sub> (g):	288	31.0					
Mass of Mixed Sample + Basket, M <sub>1</sub> (g):	442	4420.1					
Net Mass of of the Mixed Sample, M <sub>1</sub> -M <sub>e,</sub> M <sub>i</sub> (g):	153	39.1					
Mass of Sample + Basket after burn off, M <sub>2</sub> (g):	433	4330.5					
Final Mass of Sample Aggregate, $M_2$ - $M_e$ , $M_f$ (g)	144	1449.5					
Raw Aspahlt Content, A = ( $(M_i - M_f) \div M_i$ ) x 100 (%):	5.8	5.82%					
Corrected Asphalt Content AC = A - CF - MC (%):	5.37%	5.68%					
	% by Total Weight of Mix	% by Dry Weight of Agg					

wix woisture, wc	0		
Target by TWM:	5.39%	Allowable Range	5.09 - 5.89
Target by DWA:	5.70%	Allowable Range	5.36 - 6.26

Form: CCA-T308 Rev. 1.1 9/29/2017

Approved By: Satrick ener

Patrick Terrell - QC Manager II



Project:		San Diego County Overlay South				rlay South		Date Sampled:	5/4/2021		
Material De	scription:	21212305 FIBER 1/2" HMA-A w/25% RAP				A-A w/25%	RAP	Time Sampled:	215pm		
Material So	urce:	CCA Lakeside				;		Sampled By:	I. Montano		
Sample Loo	cation:	Belt Cut						Date Tested:	5/4/2021		
Tons Out:		Load #		Lot #		Sublot #		Tested By:	I. Montano		

### SIEVE ANALYSIS (CTM 202)

						Aggregate %	RAP %
Wet Weight:	4859.4	Dry Weight:	4796.5	% Moisture:	1.31%	75%	25%

									Speci	fication
Sieve Size		Weight Retained	Percent Retained		x Agg %	RAP Pass	x RAP %	Total Percent Passing		wable erance
2"	(50mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1-1/2"	(37.5mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1"	(25mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
3/4"	(19mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	100	
1/2"	(12.5mm)	301.3	6.3%	93.7%	70.3%	100.0%	25.0%	95%	96	90-100
3/8"	(9.5mm)	1281.1	26.7%	73.3%	55.0%	95.0%	23.7%	79%	77	71-83
#4	(4.75mm)	2406.8	50.2%	49.8%	37.4%	73.3%	18.3%	56%	55	48-62

Fine Agg Dry Weight:

511

										Spe	cification
Si	ieve Size	Size Weight Retained		Agg Pass x #4		x Agg %	RAP Pass	x RAP %	Total Percent Passing	Allowable Tolerance	
#8	(2.36mm)	134.4	26%	74%	37%	27.5%	58.8%	14.7%	42%	43	38-48
#16	(1.18mm)	226.3	44%	56%	28%	20.8%	44.2%	11.0%	32%	33	
#30	(600µm)	318.4	62%	38%	19%	14.1%	33.1%	8.3%	22%	22	17-25
#50	(300µm)	408.7	80%	20%	10%	7.5%	22.4%	5.6%	13%	13	
#100	(150µm)	459.0	90%	10%	5%	3.8%	14.8%	3.7%	7%	7	
#200	(75µm)	477	93.3%	6.7%	3.3%	2.5%	10.0%	2.5%	5.0%	4.4	2.4-6.4

# SAND EQUIVALENT (CTM 217)

Approved by:

atrick enel

Patrick Terrell Quality Control Manager II

Specimen Number	Sand Reading	Clay Reading	Sand Equivalent	
1	4.2	6.8	62	Specification
2	4.4	6.9	64	47
3	4.4	7.2	62	47
	-	Average	63	



Project:	San Diego County	Overlay So	uth	Date Sampled:	5/4/2021		
Міх Туре:	21212305 FIBER 1/2" HMA-A w/25% RAP			Time Sampled:	240pm	Load #:	79
Material Source:	CCA Lakeside			Sampled By:	I. Montano		
Sample Location:	Truck Bed at Plant			Date Tested:	5/4/2021		
Ticket #:	1701255098	Tons Out:	1514.27	Tested By:	I. Mo	ntano	

Calibration Information:								
Ignition Oven Identification:	Thermolyne NCAT Serial #: 0151796801150209							
Set Point Temperature from Calibration:	☑ 538°C							
Total ignition time from calibration (minutes):	46 - 56 minutes							
Asphalt Binder type and source:	PG 58-34 Holly							
Aggregate Source:	Hanson Aggregates, Vigilante Mine							
Correction Factor, CF (%):	0.45%							

	% by Total Weight of Mix	% by Dry Weight of Agg				
Corrected Asphalt Content AC = A - CF - MC (%):	5.34%	5.64%				
Raw Aspahlt Content, A = ( $(M_i - M_f) \div M_i$ ) x 100 (%):	5.7	9%				
Final Mass of Sample Aggregate, $M_2$ - $M_e$ , $M_f$ (g)	144	1440.3				
Mass of Sample + Basket after burn off, $M_2$ (g):	431	4313.5				
Net Mass of of the Mixed Sample, $M_1$ - $M_{e,}$ $M_i$ (g):	152	28.8				
Mass of Mixed Sample + Basket, M <sub>1</sub> (g):	440	02.0				
Mass of Basket, M <sub>e</sub> (g):	287	2873.2				

wix woisture, wc	0		
Target by TWM:	5.39%	Allowable Range	5.09 - 5.89
Target by DWA:	5.70%	Allowable Range	5.36 - 6.26

Form:	CCA-T308
Rev. 1.1	9/29/2017

Approved By: Saturk ener

Patrick Terrell - QC Manager II



Project:	San Diego County Overlay South				Date Sampled:	5/4/2021		
Material Description:	Combined RAP				Time Sampled:	500am		
Material Source:	CCA Lakeside				Sampled By:	I. Montano		
Sample Location:	: Belt Cut		Date Tested:	5/4/2021				
Lot #:	Sublot #:		Tons Out:		Tested By:	I. Montano		

### **RECYCLED ASPHALT PRODUCT**

### MOISTURE CONTENT OF RAP (CTM 370)

Wet Weight: 3251.2 Dry Weight:	3178.0	RAP Moisture:	2.3%
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# SIEVE ANALYSIS OF POST IGNITION OVEN RAP (CTM 202)

Basket Mass	288	Basket +		· Sample 443		57.5	HMA Sample Mass		1556.3	
Basket + Sample	Burned	433	37.2	Burned A	Agg Mass	145	56.0	Approx. O	il % TWM	5.16

Sieve Size		Weight Retained (grams)	Percent Retained (%)	Percent Passing (%)	Correction Factor (%)	Corrected Percent Passing	
2"	(50mm)	0	0.0%	100.0%	0.0	100.0%	
1-1/2"	(37.5mm)	0	0.0%	100.0%	0.0	100.0%	
1"	(25mm)	0	0.0%	100.0%	0.0	100.0%	
3/4"	(19mm)	0	0.0%	100.0%	0.0	100.0%	
1/2"	(12.5mm)	2.5	0.2%	99.8%	+0.2	100.0%	
3/8"	(9.5mm)	81.9	5.6%	94.4%	+0.6	95.0%	
#4	4.75mm)	376.9	25.9%	74.1%	-0.8	73.3%	
#8	(2.36mm)	107.6	41.7%	58.3%	+0.5	58.8%	
#16	(1.18mm)	199	55.1%	44.9%	-0.7	44.2%	
#30	(600µm)	275	66.3%	33.7%	-0.6	33.1%	
#50	(300µm)	350.4	77.4%	22.6%	-0.2	22.4%	
#100	(150µm)	405.6	85.5%	14.5%	+0.3	14.8%	
#200	(75µm)	439.7	90.5%	9.5%	+0.5	10.0%	
Mass	of #4 Split	504.1				=	

Approved By:

atrick

Patrick Terrell Quality Control Manager II



Project:		San Diego County Overlay South						Date Sampled:	5/4/2021
Material De	scription:	21212305 1/2" HMA-A w/25% RAP						Time Sampled:	510am
Material So	urce:	CCA Lakeside						Sampled By:	I. Montano
Sample Loo	cation:	Belt Cut						Date Tested:	5/4/2021
Tons Out:		Load #		Lot #		Sublot #		Tested By:	I. Montano

#### SIEVE ANALYSIS (CTM 202)

						Aggregate %	RAP %	
Wet Weight:	4857.4	Dry Weight:	4789.9	% Moisture:	1.41%	75%	25%	

									Specif	ication
Sie	ve Size	Weight Retained	Percent Retained		x Agg %	RAP Pass	x RAP %	Total Percent Passing		wable rance
2"	(50mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1-1/2"	(37.5mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1"	(25mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
3/4"	(19mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	100	
1/2"	(12.5mm)	337.4	7.0%	93.0%	69.7%	100.0%	25.0%	95%	96	90-100
3/8"	(9.5mm)	1282	26.8%	73.2%	54.9%	95.0%	23.7%	79%	77	71-83
#4	(4.75mm)	2461.2	51.4%	48.6%	36.5%	73.3%	18.3%	55%	55	48-62

Fine Agg Dry Weight:

511.3

										Spe	cification
Si	eve Size	Weight Retained	Percent Retained	Agg Pass	x #4	x Agg %	RAP Pass	x RAP %	Total Percent Passing		lowable lerance
#8	(2.36mm)	123.6	24%	76%	37%	27.6%	58.8%	14.7%	42%	43	38-48
#16	(1.18mm)	221	43%	57%	28%	20.7%	44.2%	11.0%	32%	33	
#30	(600µm)	329.4	64%	36%	17%	13.0%	33.1%	8.3%	21%	22	17-25
#50	(300µm)	419.6	82%	18%	9%	6.5%	22.4%	5.6%	12%	13	
#100	(150µm)	460.3	90%	10%	5%	3.6%	14.8%	3.7%	7%	7	
#200	(75µm)	478.6	93.6%	6.4%	3.1%	2.3%	10.0%	2.5%	4.8%	4.4	2.4-6.4

# SAND EQUIVALENT (CTM 217)

Specimen Sand Clay Sand Number Reading Reading Equivalent 1 4.0 61 Specification 6.6 2 4.2 62 6.8 47 3 4.4 7.1 62 Average 62

Approved by:

atrick enel

Patrick Terrell Quality Control Manager II



Project:	San Diego County Overlay South			Date Sampled:	5/4/2021		
Міх Туре:	21212305 1/2" HMA-A w/25% RAP			Time Sampled:	643am	Load #:	4
Material Source:	CCA Lakeside			Sampled By:	I. Montano		
Sample Location:	Truck Bed at Plant			Date Tested:	5/4/2021		
Ticket #:	1701254969 Tons Out: 77.31		Tested By:	I. Montano			

Calibration Information:					
Ignition Oven Identification:	Thermolyne NCAT Serial #: 0151796801150209				
Set Point Temperature from Calibration:	☑ 538°C □ 482°C □ 427°C				
Total ignition time from calibration (minutes):	46 - 56 minutes				
Asphalt Binder type and source:	PG 58-16 San Joaquin				
Aggregate Source:	Hanson Aggregates, Vigilante Mine				
Correction Factor, CF (%):	0.45%				

	% by Total Weight of Mix	% by Dry Weight of Agg			
Corrected Asphalt Content AC = A - CF - MC (%):	5.34%	5.64%			
Raw Aspahlt Content, A = ( $(M_i - M_f) \div M_i$ ) x 100 (%):	5.7	<sup>7</sup> 9%			
Final Mass of Sample Aggregate, $M_2$ - $M_e$ , $M_f$ (g)	150	1501.6			
Mass of Sample + Basket after burn off, $M_2$ (g):	43	4375.7			
Net Mass of of the Mixed Sample, $M_1$ - $M_{e_i}$ , $M_i$ (g):	159	93.9			
Mass of Mixed Sample + Basket, M <sub>1</sub> (g):	44	68.0			
Mass of Basket, M <sub>e</sub> (g):	287	2874.1			

	0		
Target by TWM:	5.39%	Allowable Range	5.09 - 5.89
Target by DWA:	5.70%	Allowable Range	5.36 - 6.26

Form: CCA-T308 Rev. 1.1 9/29/2017

Approved By: Satrick

Patrick Terrell - QC Manager II

# Location 4



Twining, Inc. - San Diego Lab 15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424

Daily Field Report					Report No: DFR:W02-21-00467-01			
		•			Date of Issue: 02/08/2021 Issue No: 1			
Customer:		• •	ctors (Lehigh Hanson)		Project No: 200638.2			
		Ponderosa Avenue	e, Suite C	Permit No:				
		iego, CA 92123			OSHPD:			
Project:		-	phalt Concrete Overlay South		DSA File #:			
		iego County Roads	S		DSA AP #:			
	San D	iego, CA						
Distribution:					ant			
Jurisdiction:	Count	y of San Diego			Approved Signatory: Andre	ew Suarez		
Test Date:		Friday, Februar	y 5, 2021	Inspector:	Jose Franco-Casas			
Inspection N	o.:							
Contractor:		ATP						
Equipment C	)bsv.:	e) Cat AP1055F	illing machine, b) 2-Mechani F Paver, f) Volvo DD110B vit actor, i) Dynapac CC2200 vit	oratory compactor	, g) Cat PS-150C rubber tire	e roller, h) Cat CB24E		
Time Arrived	l:	8:00 AM	Time Departed:	3:30 PM	Time on Site:	7.5 Hrs		
Lunch Start:		11:15 AM	Lunch End:	11:45 AM	Travel Time:	2 Hrs		
Mileage:		90.0	Weather:	Sunny				
Types of Te	esting /	Observations						
Asphalt - Fi	eld Den	sity Testing						
Referenced	Docur	nents						
Submittal No.	ATP01	9R2, dated 12.02	.2020.					
Observatio	ns/Re	marks						
Jobsite:_45	_ Miles f	rom Jobsite:_45_	_ Reason for Travel:_Transp _ Travel to Jobsite (start):_7 (end):_4:30pm Expenses:	:00am Travel to	o Jobsite (end):_8:00am	Travel from Jobsite		
ASPHALT - F	IELD D	ENSITY TESTING	3					
			N nuclear gauge and AC ge					
between Hous Contractor sc	se No.3	627 to House No.	n <mark>Carroll Canyon Road in Bo</mark> . 3806, then the North bound le CCA-Lakeside Plant of the	l, right lane, appro	ox between House No. 3807	to Central Ave.		
34M. Observe millir distributor true		ations with 2 Wirte	gen machines, two mechanio	cal brooms swept	each lane. Tack coat applie	d with a CRS		
AC placemen Mix Code 212	t with a 210415,	this was brought	cted thr first load ticket and for to the attention of foreman	Sal Lopez, Superii	ntendent Jarrod Duke and C	County RE Meriam		
3, 4 and 5.	ey call C	CA-Lakeside We	eigtmaster, they say mix was	ngnt, and they re	print ticket with the right Mix	1, 2, 1, 1		
As requested Appendix B /	Preparir	ng Samples. Obta	CT-125, but this sample was ained a 2nd sample from load					
		s for QC team.	at/abaya 295°E					
		ature and found a med initial breake	at/above 285°F. Jown with a Volvo dual smoc	oth drums vibratory	v and.			
2	- 0.101				, <del>,</del>			



Twining, Inc. - San Diego Lab

15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424

Daily F	ield Report	Report No: DFR:W02-21-00467-01           Date of Issue: 02/08/2021         Issue No: 1				
Customer:	ATP Engineering Contractors (Lehigh Hanson)	Project No: 200638.2				
	4211 Ponderosa Avenue, Suite C	Permit No:				
	San Diego, CA 92123	OSHPD:				
Project:	County of San Diego, Asphalt Concrete Overlay South	DSA File #:				
	San Diego County Roads	DSA AP #:				
	San Diego, CA					
Distribution:		antest				
Jurisdiction:	County of San Diego	Approved Signatory: Andrew Suarez				
Observatio	ns / Remarks (continued)					
intermediate rolling with a rubber tire roller and a Cat CB54B vibratory compactor, final rolling performed with a Dynapac CC2200 double drum vibratory compactor. Conducted 16 AC density test using a CPN MC-1DR-P Portaprobe nuclear gauge, these density test meet 95% County requirements, ATP foreman and personnel was notified. Today AC production was approx 826.4 tons. Samples were transported to Twining Lab for conformance testing.						

All inspections based on minimum of 4 hours and over 4 hours - 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

A	
-///	

Jose Franco-Casas, Inspector/Technician

Lunch not taken reason: Continuous inspection Remarks:

This report will be distributed to architect, engineer, client, and governing jurisdiction (e.g. DSA) as required by applicable codes and project documents.

Certificate of Compliance		
The Work 🗸 Was 🗌 Was Not	The Work Inspected 🗸 Met 🗌 Did Not Meet	The Material Sampling 🗹 Was 🗌 Was Not
inspected in accordance with the requirements of	the requirements of the County of San Diego approved documents	performed in accordance with the requirements of the County of
the County of San Diego approved documents		San Diego approved documents

All Reports Remain The Property of Twining, Inc. Authorization For The Publication Of Our Reports, Conclusions, Or Extracts From Or Regarding Them is Reserved Pending Our Written Approval As A Mutual Protection To Clients, The Public and Ourselves

	<b>VINING</b> eld Report	Twining, Inc San Diego Lab           15950 Bernardo Center Drive, Suite H           San Diego, CA 92127           Ph: 858-974-3750           Fax: 562.426.6424           Report No: DFR:W02-21-00467-O1
Dally Tie		Date of Issue: 2/8/2021 Issue No: 1
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdiction Distribution	n: County of San Diego n:	antest
		Approved Signatory: Andrew Suarez (Branch Manager)



	<b>VINING</b> eld Report	Twining, Inc San Diego Lab           15950 Bernardo Center Drive, Suite H           San Diego, CA 92127           Ph: 858-974-3750           Fax: 562.426.6424           Report No: DFR:W02-21-00467-O1
Dally Tie		Date of Issue: 2/8/2021 Issue No: 1
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdiction Distribution	n: County of San Diego n:	antest
		Approved Signatory: Andrew Suarez (Branch Manager)



TWINING Daily Field Report	Twining, Inc San Diego Lab           15950 Bernardo Center Drive, Suite H           San Diego, CA 92127           Ph: 858-974-3750           Fax: 562.426.6424           Report No: DFR:W02-21-00467-O1           Date of Issue: 2/8/2021
Customer:       ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123         Project:       County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdiction: County of San Diego Distribution:	Approved Signatory: Andrew Suarez (Branch Manager)



₩т\	WINING	<b>Twining, Inc San Diego Lab</b> 15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424
Daily Fie	eld Report	Report No: DFR:W02-21-00467-01           Date of Issue: 2/8/2021         Issue No: 1
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdiction Distribution	ո: County of San Diego ո:	antest
		Approved Signatory: Andrew Suarez (Branch Manager)



	<b>VINING</b> eld Report	Twining, Inc San Diego Lab           15950 Bernardo Center Drive, Suite H           San Diego, CA 92127           Ph: 858-974-3750           Fax: 562.426.6424           Report No: DFR:W02-21-00467-O1           Date of Issue: 2/8/2021         Issue No: 1
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdiction Distribution	n: County of San Diego n:	Approved Signatory: Andrew Suarez (Branch Manager)



₩т\	WINING	<b>Twining, Inc San Diego Lab</b> 15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424
Daily Fie	eld Report	Report No: DFR:W02-21-00467-01           Date of Issue: 2/8/2021         Issue No: 1
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdiction Distribution	ո: County of San Diego ո:	antest
		Approved Signatory: Andrew Suarez (Branch Manager)



Twining, Inc. - San Diego Lab 15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Exercise 2426 6404

		Fax: 562.426.6424
Asphalt	Nuclear Density Report	Report No: ND:W02-21-00467           Date of Issue: 2/8/2021         Issue No: 1
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdictior Distributior	ւ: County of San Diego ւ:	Approved Signatory: Andrew Suarez (Branch Manager)

Testing Details			
Tested By:	Jose Franco-Casas	Date Tested:	2/5/2021
Plant:	Lakeside	Gauge Make/Model:	
Method of Measurement:	Backscatter	Density Standard Count	:: 31379
Gauge Serial:		Moisture Standard Cour	nt: 9828
Calibration Date:		Weather:	Sunny
Calibration Source:			

Test	t Result	s										ASTM	D 2950
Test No	Road	Station	Offset (ft)	From	Mix	Lift	Layer Thickness (in)	Count Rate	MLD (lb/ft³)	In Situ Density (Ib/ft³)	Comp (%)	Limit (%)	Results
Appro	ox.Test Lo	cation: E	Bonita										
1	3627 Carroll Canyon Road	NA	6.0	Right shoulder	21212415 1/2" HMA (PMAC)	1	3.0	1 min.	146.40	142.70	97	≥95	Р
2	3651 Carroll Canyon Road	NA		Right side of centerline	21212415 1/2" HMA (PMAC)	1	3.0	1 min.	146.40	140.20	96	≥95	Р
3	3668 Carroll Canyon Road	NA	6.0	Right shoulder	21212415 1/2" HMA (PMAC)	1	3.0	1 min.	146.40	139.80	95	≥95	Р
4	3710 Carroll Canyon Road	NA	6.0	Right shoulder	21212415 1/2" HMA (PMAC)	1	3.0	1 min.	146.40	142.70	97	≥95	Р
5	3726 Carroll Canyon Road	NA	8.0	Right shoulder	21212415 1/2" HMA (PMAC)	1	3.0	1 min.	146.40	140.30	96	≥95	Р
6	3637 Carroll Canyon Road	NA	6.0	Right shoulder	21212415 1/2" HMA (PMAC)	1	3.0	1 min.	146.40	140.00	96	≥95	Р
7	3768 Carroll Canyon Road	NA	7.0	Right shoulder	21212415 1/2" HMA (PMAC)	1	3.0	1 min.	146.40	141.90	97	≥95	Р
8	5607 Carroll Canyon Road	NA	6.0	Right shoulder	21212415 1/2" HMA (PMAC)	1	3.0	1 min.	146.40	141.50	97	≥95	Р
9	3751 Carroll Canyon Road	NA	7.0	Right shoulder	21212415 1/2" HMA (PMAC)	1	3.0	1 min.	146.40	142.50	97	≥95	Р

Asp	halt Nu		ensity R	•					15950 Beri San Diego Ph: 858-97 Fax: 562.4	26.6424	Drive, Suite	H ND:W02-2	21-00467 ssue No: 1	
Customer:       ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123         Project:       County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,										Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:				
Juris Distr	diction: Co ibution:	ounty of Sa	n Diego						Approved Sig	gnatory: Andrew S	Suarez (Branch	Manager)		
Tes	t Result	<u>د</u>										ASTM	D 2950	
Test No	Road	Station	Offset (ft)	From	Mix	Lift	Layer Thickness (in)	Count Rate	MLD (lb/ft³)	In Situ Density (Ib/ft³)	Comp (%)	Limit (%)	Results	
Appr	ox.Test Lo	cation: E	Bonita				. ,			. ,				
10	3727 Carroll Canyon Road	NA		Right shoulder	21212415 1/2" HMA (PMAC)	1	3.0	1 min.	146.40	140.10	96	≥95	Р	
11	3703 Carroll Canyon Road	NA	8.0	Right shoulder	21212415 1/2" HMA (PMAC)	1	3.0	1 min.	146.40	141.30	97	≥95	Р	
12	3659 Carroll Canyon Road	NA	8.0	Right shoulder	21212415 1/2" HMA (PMAC)	1	3.0	1 min.	146.40	142.60	97	≥95	Р	
13	3637 Carroll Canyon Road	NA		Right shoulder	21212415 1/2" HMA (PMAC)	1	3.0	1 min.	146.40	140.90	96	≥95	Р	
14	3627 Carroll Canyon Road	NA	8.0	Right shoulder	21212415 1/2" HMA (PMAC)	1	3.0	1 min.	146.40	140.80	96	≥95	Р	
15	Carroll Canyon Road approx 150ft from Central Av	NA	6.0	Right shoulder	21212415 1/2" HMA (PMAC)	1	3.0	1 min.	146.40	141.30	97	≥95	Р	
16	5541 Carroll Canyon Road	NA	8.0	Right shoulder	21212415 1/2" HMA (PMAC)	1	3.0	1 min.	146.40	140.10	96	≥95	Р	

SUN	IMARY OF TESTING					Z	Δ <sub>T</sub>	WINI	NG
CONT	RACTOR NAME, ADDRESS, AND	PHONE NUMBER	SAMPLE DATE		2/5	5/2021			
ATP General Engineering 4211 Ponderosa Ave			FIELD NUMBER	12415 - 1/	′2" Type A		PM - N	ON FIBER	
San	Diego, CA 92123		TEST NUMBER						
	san Bitar				Lot '	1 PSUE			
	530-8541		HMA TYPE						
ACC	) South		SAMPLE INFORMA		/2" HMA-A	, PG 58-3	4111		
are not	m must be submitted with all daily testing within the Action Limits. Use additional sh data has been supplied by CCA				Lot 1 P	SUE/SL 2			
	Quality Characteristic		Test Result Sublot Number	Test Result Sublot Number	Test Result Sublot Number	Test Result Sublot Number	LSL	Target Value	USL
			PSUE	2	-	-		value	
	Aggregate gradation (% pas Sieve Size	sing, report to tenth)	_						
	2"		100	100			100	100	100
	1 1/2"		100	100			100	100	100
	1"		100	100			100	100	100
	3/4"		100	100			100	100	100
	1/2"		95	95			91	96	100
D	3/8"		77	77			71	77	83
Passing	No. 4		53	55			48	55	62
% P;	No. 8		40	42			38	43	48
	No. 16		31	26				33	
	No. 30		21	21			18	22	26
	No. 50		12	12				13	
	No. 100		7	8				7	
	No. 200		4.7	5.4			2.4	4.4	6.4
San	ad Equivalent CTM 217 63 64 50		50		Min				
HMA	A Moisture Content (%)	CTM 382	0.0%	0.0%			0		0.5
Aggi	regate Moisture	CTM 226	3.80	3.74				Report O	nly

SUMMARY OF TESTING

SUMMARY OF TESTING				Page 2 of 2							
				SAMPLE DATE		2/2	2/2021				
				FIELD NUMBER 212 TEST NUMBER	12415 - 1/	2" Type A	PG58-34	PM - N	ON FIBER		
				HMA TYPE			1 PSUE				
				SAMPLE INFORMA		/2" HMA-A	,; PG 58-3	4PM			
							SUE/SL 2		1		
Quality Characteristic				Test Result Sublot Number	Test Result Sublot Number <b>2</b>	Test Result Sublot Number	Test Result Sublot Number -	LSL	Target Value	USL	
L.A. Rattler, Loss @ 100 Rev (%)	(	CT 211		3.6				12		Max	
L.A. Rattler, Loss @ 500 Rev (%)	(	CT 211		17.3				40		Мах	
Crushed particles, Coarse agg (%) One fractured face	(	CT 205		99				95		Min	
Crushed particles, Coarse agg (%) Two fractured faces	(	CT 205		97				90		Min	
Crushed particles, Fine agg (%) One fractured face	(	CT 205		99				70		Min	
Fine aggregate angularity (%)	(	CT 234		45				45		Min	
Flat and Elong particles(% 5:1)	(	CT 235		4.0				10		Мах	
TEST PROPERTY	А	В	С		AVG	<b>)</b> .		Va	Target lues/Tolera	ances	
Asphalt binder content (%TWM)	С	TM 38	2	5.49	5.33			5.09	5.39	5.89	
RAP AC %	С	TM 38	2	5.26				2.70	4.70	6.70	
RAP Moisture	C	TM 37	0	3.10					Report O	nly	
Hveem Stability	C	TM 36	6	41					37		
Briquette Sp. Gr.	2.336	2.335	2.334	2.335					N/A		
Theoritical Max Density	(	CT 309		2.454				Report Only			
Air Voids (%)	4.8	4.8	4.9	4.8				2.5	4	5.5	
Voids in Mineral Aggregate (%)	15.2	15.2	15.3	15.2				14			
Voids Filled With Asphalt (%)	68.4	68.2	68.0	68.2					Report Only		
Dust Proportion	1.2	1.2	1.2	1.2				0.6	-	1.3	



Project:		San [	Diego Coun	ty Overlay South		Date Sampled:	2/5/2021
Material D	escription:	Combined RAP		Time Sampled:	6:00 AM		
Material Source: C		CCA La	_akeside		Sampled By:	I. Montano	
Sample Location:			Belt	Cut		Date Tested:	2/5/2021
Lot #:		Sublot #:		Tons Out:		Tested By:	I. Montano

# **RECYCLED ASPHALT PRODUCT**

#### MOISTURE CONTENT OF RAP (CTM 370)

	Wet Weight:	2591.4	Dry Weight:	2513.2	RAP Moisture:	3.1%
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# SIEVE ANALYSIS OF POST IGNITION OVEN RAP (CTM 202)

Basket Mass	286	68.1	Basket +	- Sample	438	39.3	HMA San	ple Mass	152	1.2
Basket + Sample	Burned	428	9.2	Burned A	Agg Mass	142	21.1	Approx. O	il % TWM	5.26

Sie	ve Size	Weight Retained (grams)	Percent Retained (%)	Percent Passing (%)	Correction Factor (%)	Corrected Percent Passing
2"	(50mm)	0	0.0%	100.0%	0.0	100.0%
1-1/2"	(37.5mm)	0	0.0%	100.0%	0.0	100.0%
1"	(25mm)	0	0.0%	100.0%	0.0	100.0%
3/4"	(19mm)	0	0.0%	100.0%	0.0	100.0%
1/2"	(12.5mm)	25.4	1.8%	98.2%	+0.2	98.4%
3/8"	(9.5mm)	96.3	6.8%	93.2%	+0.6	93.8%
#4	4.75mm)	364.8	25.7%	74.3%	-0.8	73.5%
#8	(2.36mm)	116.4	42.6%	57.4%	+0.5	57.9%
#16	(1.18mm)	210.8	56.3%	43.7%	-0.7	43.0%
#30	(600µm)	284.5	66.9%	33.1%	-0.6	32.5%
#50	(300µm)	361.4	78.1%	21.9%	-0.2	21.7%
#100	(150µm)	413.8	85.7%	14.3%	+0.3	14.6%
#200	(75µm)	450.3	91.0%	9.0%	+0.5	9.5%
Mass	of #4 Split	512.3				-

Approved By:

atrick

Patrick Terrell Quality Control Manager II



Project:		San Diego County Overlay South				Date Sampled:	2/5/2021		
Material Descript	ion:	21212415 1/2" HMA-A w/25% RAP			νP	Time Sampled:	600am		
Material Source: CCA Lakeside			Sampled By:	I. Montano					
Sample Location:		Belt Cut						Date Tested:	2/5/2021
Tons Out:	l	Load #		Lot #		Sublot #		Tested By:	I. Montano

# **SIEVE ANALYSIS** (CTM 202)

						Aggregate %	RAP %
Wet Weight:	6302.1	Dry Weight:	6071.3	% Moisture:	3.80%	75%	25%

									Spec	ification
Sie	ve Size	Weight Retained	Percent Retained		x Agg %	RAP Pass	x RAP %	Total Percent Passing		owable erance
2"	(50mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1-1/2"	(37.5mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1"	(25mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
3/4"	(19mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	100	
1/2"	(12.5mm)	304.4	5.0%	95.0%	71.2%	98.4%	24.6%	96%	96	90-100
3/8"	(9.5mm)	1749.4	28.8%	71.2%	53.4%	93.8%	23.5%	77%	77	71-83
#4	(4.75mm)	3200.9	52.7%	47.3%	35.5%	73.5%	18.4%	54%	55	48-62

Fine Agg Dry Weight:

515.7

										Spe	cification
Si	eve Size	Weight Retained	Percent Retained	Agg Pass	x #4	x Agg %	RAP Pass	x RAP %	Total Percent Passing		lowable lerance
#8	(2.36mm)	119.8	23%	77%	36%	27.2%	57.9%	14.5%	42%	43	38-48
#16	(1.18mm)	217.2	42%	58%	27%	20.5%	43.0%	10.8%	31%	33	
#30	(600µm)	321.9	62%	38%	18%	13.3%	32.5%	8.1%	21%	22	17-25
#50	(300µm)	413.5	80%	20%	9%	7.0%	21.7%	5.4%	12%	13	
#100	(150µm)	458.4	89%	11%	5%	3.9%	14.6%	3.6%	8%	7	
#200	(75µm)	473.3	91.8%	8.2%	3.9%	2.9%	9.5%	2.4%	5.3%	4.4	2.4-6.4

# SAND EQUIVALENT (CTM 217)

Specimen Number	Sand Reading	Clay Reading	Sand Equivalent	
1	4.0	6.3	64	Specification
2	4.2	6.8	62	47
3	4.1	6.4	64	47
		Average	63	

Approved by:

. ... ...

enell atrick,

Patrick Terrell Quality Control Manager II



Project:	San Diego County Overlay South			Date Sampled:	2/5/2021		
Mix Type:	21212415 1/2" HM	/A-A w/25%	RAP	Time Sampled:	954am	Load #:	9
Material Source:	CCA Lakeside			Sampled By:	I. Montano		
Sample Location:	Truck Bed at Plant		Date Tested:	2/5/2021			
Ticket #:	1701251013 Tons Out: 170.16		Tested By:	I. Montano			

Calibration Information:							
Ignition Oven Identification: Thermolyne NCAT Serial #: 0151796801150209							
Set Point Temperature from Calibration:	⊠ 538°C □ 482°C □ 427°C						
Total ignition time from calibration (minutes):	46 - 56 minutes						
Asphalt Binder type and source:	PG 58-34 Holly						
Aggregate Source:	Hanson Aggregates, Vigilante Mine						
Correction Factor, CF (%):	0.45%						

Ignitior	n Oven Procedure	
Mass of Basket, M <sub>e</sub> (g):	286	68.5
Mass of Mixed Sample + Basket, M <sub>1</sub> (g):	438	34.0
Net Mass of of the Mixed Sample, $M_1$ - $M_{e_1}$ , $M_i$ (g):	15'	15.5
Mass of Sample + Basket after burn off, M <sub>2</sub> (g):	425	94.0
Final Mass of Sample Aggregate, $M_2$ - $M_e$ , $M_f$ (g)	142	25.5
Raw Aspahlt Content, A = ( $(M_i - M_f) \div M_i$ ) x 100 (%):	5.9	)4%
Corrected Asphalt Content AC = A - CF - MC (%):	5.49%	5.81%
	% by Total Weight of Mix	% by Dry Weight of Agg

	0		
Target by TWM:	5.39%	Allowable Range	5.09 - 5.89
Target by DWA:	5.70%	Allowable Range	5.36 - 6.26

Form: CCA-T308 Rev. 1.1 9/29/2017

Approved By: Natrick, enell

Patrick Terrell - QC Manager II



Project:	San Diego County Overlay South				Date Sampled:	2/5/2021	
Material Description	21212415 1/2" HMA-A w/25% RAP			۱P	Time Sampled:	1230pm	
Material Source:	CCA Lakeside				Sampled By:	I. Montano	
Sample Location:	Belt Cut				Date Tested:	2/5/2021	
Tons Out:	Load #	Lot #		Sublot #		Tested By:	I. Montano

# SIEVE ANALYSIS (CTM 202)

						Aggregate %	RAP %
Wet Weight:	6099.0	Dry Weight:	5879.4	% Moisture:	3.74%	75%	25%

									Spec	cification
Sie	ve Size	Weight Retained	Percent Retained		x Agg %	RAP Pass	x RAP %	Total Percent Passing		owable lerance
2"	(50mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1-1/2"	(37.5mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1"	(25mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
3/4"	(19mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	100	
1/2"	(12.5mm)	345.3	5.9%	94.1%	70.6%	98.4%	24.6%	95%	96	90-100
3/8"	(9.5mm)	1677.3	28.5%	71.5%	53.6%	93.8%	23.5%	77%	77	71-83
#4	(4.75mm)	3008.5	51.2%	48.8%	36.6%	73.5%	18.4%	55%	55	48-62

Fine Agg Dry Weight:

510

										Spe	cification
Si	eve Size	Weight Retained	Percent Retained	Agg Pass	x #4	x Agg %	RAP Pass	x RAP %	Total Percent Passing		lowable lerance
#8	(2.36mm)	132	26%	74%	36%	27.1%	57.9%	14.5%	42%	43	38-48
#16	(1.18mm)	299.7	59%	41%	20%	15.1%	43.0%	10.8%	26%	33	
#30	(600µm)	333.4	65%	35%	17%	12.7%	32.5%	8.1%	21%	22	17-25
#50	(300µm)	412.5	81%	19%	9%	7.0%	21.7%	5.4%	12%	13	
#100	(150µm)	448.0	88%	12%	6%	4.5%	14.6%	3.6%	8%	7	
#200	(75µm)	468.2	91.8%	8.2%	4.0%	3.0%	9.5%	2.4%	5.4%	4.4	2.4-6.4

# SAND EQUIVALENT (CTM 217)

Specimen Number	Sand Reading	Clay Reading	Sand Equivalent	
1	4.3	6.9	63	Specification
2	4.3	6.6	66	47
3	4.1	6.4	64	47
		Average	64	

Approved by:

enell atrick,

Patrick Terrell Quality Control Manager II



Project:	San Diego County Overlay South			Date Sampled:	2/5/2021		
Mix Type:	21212415 1/2" HMA-A w/25% RAP			Time Sampled:	119pm	Load #:	44
Material Source:	CCA Lakeside			Sampled By:	I. Montano		
Sample Location:	Truck Bed at Plant			Date Tested:	2/5/2021		
Ticket #:	1701251067	Tons Out:	835.4	Tested By:	I. Mo	ntano	

Calibration Information:					
Ignition Oven Identification:	Thermolyne NCAT Serial #: 0151796801150209				
Set Point Temperature from Calibration:	⊠ 538°C □ 482°C □ 427°C				
Total ignition time from calibration (minutes):	46 - 56 minutes				
Asphalt Binder type and source:	PG 58-34 Holly				
Aggregate Source:	Hanson Aggregates, Vigilante Mine				
Correction Factor, CF (%):	0.45%				

Ignition Oven Procedure						
Mass of Basket, M <sub>e</sub> (g):	28	76.8				
Mass of Mixed Sample + Basket, M <sub>1</sub> (g):	45	16.2				
Net Mass of of the Mixed Sample, M <sub>1</sub> -M <sub>e,</sub> M <sub>i</sub> (g):	16.	1639.4				
Mass of Sample + Basket after burn off, M <sub>2</sub> (g):	44:	4421.4				
Final Mass of Sample Aggregate, $M_2$ - $M_e$ , $M_f$ (g)	154	1544.6				
Raw Aspahlt Content, A = ( $(M_i - M_f) \div M_i$ ) x 100 (%):	5.7	5.78%				
Corrected Asphalt Content AC = A - CF - MC (%):	5.33%	5.63%				
	% by Total Weight of Mix	% by Dry Weight of Agg				

Mix Moisture, MC	0		
Target by TWM:	5.39%	Allowable Range	5.09 - 5.89
Target by DWA:	5.70%	Allowable Range	5.36 - 6.26

Form: CCA-T308 Rev. 1.1 9/29/2017

Approved By: Natrick, enell

Patrick Terrell - QC Manager II



# HMA Physical Properties Worksheet

Client	ATP Engineering Contractors	
Project	SD County Overlay South	

Sample Location/ID 1/2" HMA Type A - PMAC 21212415

Job No. <u>200638.2</u> Lab No. <u>W05-21-00</u>

Sampled by J Casas Date Sampled 2/5/2021

Tested By BB

Date Tested 2/8/2021

CT 309 Maximum Theoretical Gravity					
Sample Weight	1579.4				
Pyncnometer + H <sub>2</sub> O	7356.4				
Sample+Pyncnometer+H <sub>2</sub> O	8292.2				
Temperature H <sub>2</sub> O	25.0				
Maximum Specific Gravity	2.454				

Lab Tested Maximum Density						
Briquette ID	1	2	3			
Thickness	2.57	2.54	2.54			
Weight in Air	1200.7	1200.6	1200.2			
Paraffin Coated Wt	1217.7	1216.1	1217.0			
Weight in Water	684.8	684.6	684.2			
Vol. cc	514.0	514.3	514.1			
Sp. Gr.	2.336	2.335	2.334			
PCF	145.4	145.3	145.3			
S	2.335					
Weight	145.3					
	4.8					

CT 366 Stability								
2000	3000	4000	5000lbs (R)	6000	Turn Dial (T)	Stability		
16	24	32	41.0	51	2.68	42		
17	25	33	43.0	53	2.76	40		
17	26	34	44.0	55	2.73	40		
Average Stability						41		

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Twining, Inc. - San Diego Lab 15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424

Daily Field Report					Report No: DFR:W	Report No: DFR:W02-21-01791-O1		
					Date of Issue: 05/07/2021	Issue No: 1		
Customer:	ATP E	ngineering Contracto	ors (Lehigh Hanson)		Project No: 200638.2			
	4211 F	Ponderosa Avenue, S	Suite C		Permit No:			
	San D	iego, CA 92123			OSHPD:			
Project:	County	y of San Diego, Asph	alt Concrete Overlay South		DSA File #:			
	San D	iego County Roads			DSA AP #:			
	San D	iego, CA						
Distribution: Jurisdiction:	Count	y of San Diego			Approved Signatory: Andrew	w Suproz		
	Count	_	5 0004			wodalez		
Test Date:		Wednesday, May	5, 2021	Inspector:	Jose Franco-Casas			
Inspection N	0.:	ATD						
Contractor:	hovi	ATP	o b) Machanical broom		distributor truck, d) Cat 10-20	P payor a) Cat		
Equipment O	057	CB44B smooth dr		f) Dynapac CC12	200 vibratory roller, g) Cat CB			
Time Arrived	:	8:15 AM	Time Departed:	4:00 PM	Time on Site:	7.75 Hrs		
Lunch Start:		11:15 AM	Lunch End:	11:45 AM	Travel Time:	2 Hrs		
Mileage:		68.0	Weather:	Sunny				
Types of Te	stina /	Observations		-				
Asphalt - Fie								
Referenced	Docur	nents						
		/2" HMA 58-34M Ty	/ре А					
Observation	ns / Re	marks						
*****Regular:	_8.0	OT:_1.25 DT:	Reason for Travel:_Tran	sport of CPN nucl	lear gauge, AC gear and AC	samples Miles to		
(start):_4:00 p	m Tr				to Jobsite (end):_8:15 am pment Used: _CPN nuclear g			
****	*							
ASPHALT - F		ENSITY TESTING						
Picked up the								
gear and truck from the San Diego office.								
Upon arrival met ATP foreman Looney to discuss the scope of work for today. Today contractor placed an asphalt concrete 3"								
overlay on Corral Canyon Road at the median and N/S bound lanes, approximately between Jockey Way and Central Avenue.								
Contractor utilized the AC Mix ID 21212415// 1/2" HMA Type A 58-34M, this asphalt was imported from CCA-Lakeside Plant. Observe a mechanical broom sweeping each lane prior tack coat application, this tack coat was applied with a Bear Cat CRC								
distributor truck.								
Asphalt concrete placement with a Cat paver, initial breakdown performed with a Cat CB44B smooth drums vibratory compactor,								
intermediate rolling with a Dynapac vibratory roller, and final rolling with a Cat CB7 double drums vibratory compactor. Monitored AC								
temperature, range between 280°F and 312°F. Sampled Load No. 13, Truck No. SDA9, Ticket No. 1701355127, Sample Time 10:12 am, AC temperature 302°F, Location was 3651								
Corral Canyor			TICKET NO. 1701355127, 3	sample Time 10:1	2 am, AC temperature 302°F	, Location was 3651		
			se samples were transpor	ted to Twining Lat	b in San Diego for conforman	ce testing.		
Conducted 25 AC density test using a CPN MC-1DR-P Portaprobe nuclear gauge, these compaction test meet 95% County								
requirements, ATP personnel was								



Twining, Inc. - San Diego Lab

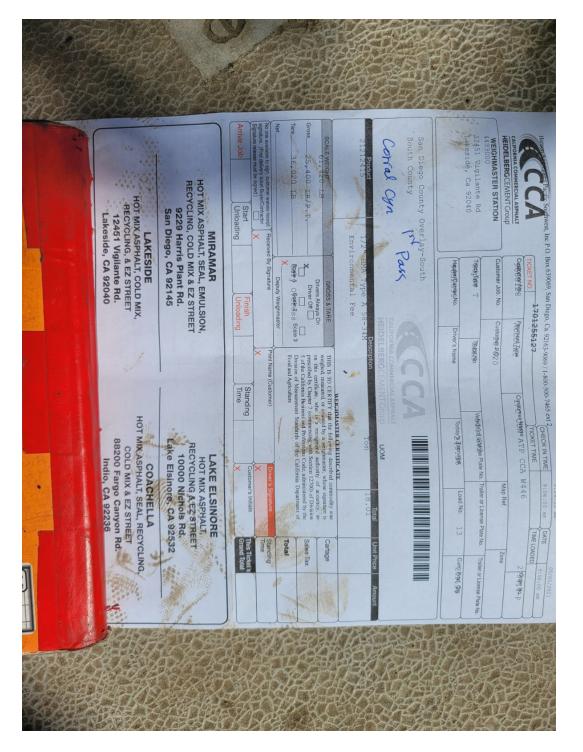
15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424

Daily F	ield Report		Report No: DFR:W02-21-01791-01           Date of Issue: 05/07/2021         Issue No: 1
Customer:	ATP Engineering Contractors (Lehigh Hanson)		Project No: 200638.2
	4211 Ponderosa Avenue, Suite C		Permit No:
	San Diego, CA 92123		OSHPD:
Project:	County of San Diego, Asphalt Concrete Overlay South		DSA File #:
	San Diego County Roads		DSA AP #:
	San Diego, CA		
Distribution:			anter
Jurisdiction:	County of San Diego		Approved Signatory: Andrew Suarez
Observatio	ns / Remarks (continued)		
notified. Today asphal	t concrete production was 76 loads 1435.93 tons.		
	All inspections based on minimum of 4 hours and over 4 hours - 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.	Jose Franco-C	asas, Inspector/Technician
Remarks:			
This report will be	distributed to architect, engineer, client, and governing jurisdiction (e.g.	OSA) as required by appl	icable codes and project documents.
Cortificato	of Compliance		

certificate of compliance					
The Work 🗹 Was 🗌 Was Not	The Work Inspected	Met 🗌 Did Not Meet	The Material Sampling	✓ Was	Was Not
inspected in accordance with the requirements of	the requirements of the Cou	nty of San Diego approved documents	performed in accordance with t		of the County of
the County of San Diego approved documents			San Diego approved document		

All Reports Remain The Property of Twining, Inc. Authorization For The Publication Of Our Reports, Conclusions, Or Extracts From Or Regarding Them is Reserved Pending Our Written Approval As A Mutual Protection To Clients, The Public and Ourselves

	<b>VINING</b> eld Report	Twining, Inc San Diego Lab           15950 Bernardo Center Drive, Suite H           San Diego, CA 92127           Ph: 858-974-3750           Fax: 562.426.6424           Report No: DFR:W02-21-01791-01           Date of Issue: 5/7/2021         Issue No: 1
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdiction Distribution	n: County of San Diego n:	Approved Signatory: Andrew Suarez (Branch Manager)



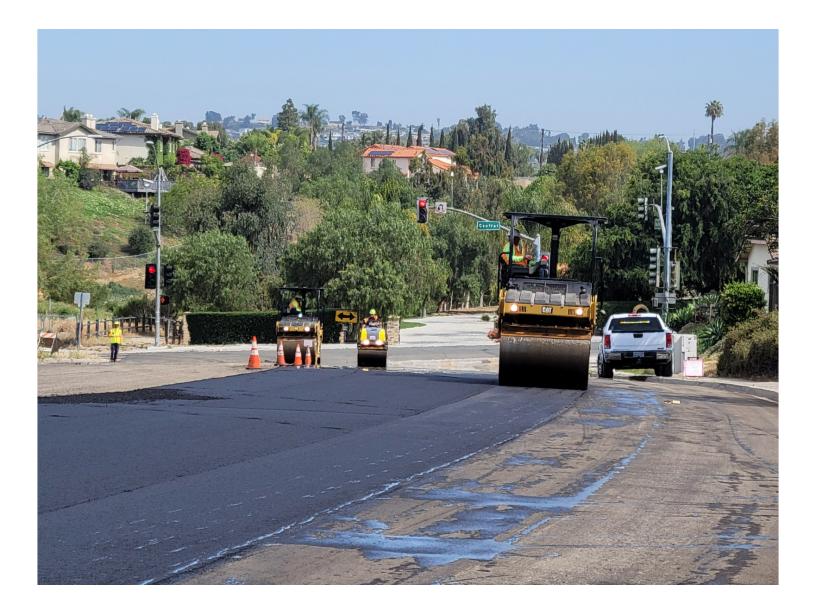
	<b>VINING</b> eld Report	Twining, Inc San Diego Lab           15950 Bernardo Center Drive, Suite H           San Diego, CA 92127           Ph: 858-974-3750           Fax: 562.426.6424           Report No: DFR:W02-21-01791-01           Date of Issue: 5/7/2021
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdictior Distributior	ւ: County of San Diego ւ:	Approved Signatory: Andrew Suarez (Branch Manager)



TWINING Daily Field Report	Twining, Inc San Diego Lab           15950 Bernardo Center Drive, Suite H           San Diego, CA 92127           Ph: 858-974-3750           Fax: 562.426.6424           Report No: DFR:W02-21-01791-01           Date of Issue: 5/7/2021
Customer:       ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123         Project:       County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdiction: County of San Diego Distribution:	Approved Signatory: Andrew Suarez (Branch Manager)



TWINING Daily Field Report	Twining, Inc San Diego Lab           15950 Bernardo Center Drive, Suite H           San Diego, CA 92127           Ph: 858-974-3750           Fax: 562.426.6424           Report No: DFR:W02-21-01791-01           Date of Issue: 5/7/2021
Customer:       ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123         Project:       County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdiction: County of San Diego Distribution:	Approved Signatory: Andrew Suarez (Branch Manager)



	<b>VINING</b> eld Report	Twining, Inc San Diego Lab           15950 Bernardo Center Drive, Suite H           San Diego, CA 92127           Ph: 858-974-3750           Fax: 562.426.6424           Report No: DFR:W02-21-01791-01           Date of Issue: 5/7/2021
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdiction Distribution	ո: County of San Diego ነ:	Approved Signatory: Andrew Suarez (Branch Manager)



**Twining, Inc. - San Diego Lab** 15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562 426 6424

		Fax: 562.426.6424
Asphalt	Nuclear Density Report	Report No: ND:W02-21-01791           Date of Issue: 5/7/2021         Issue No: 1
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdictior Distributior	ւ: County of San Diego ։:	Approved Signatory: Andrew Suarez (Branch Manager)

Testing Details			
Tested By:	Jose Franco-Casas	Date Tested:	5/5/2021
Plant:	Lakeside	Gauge Make/Model:	
Method of Measurement:	Backscatter	Density Standard Count	t: 31268
Gauge Serial:		Moisture Standard Cour	nt: 9714
Calibration Date:		Weather:	Sunny
Calibration Source:			

Test	Result	S										ASTM	D 2950
Test No	Road	Station	Offset (ft)	From	Mix	Lift	Layer Thickness (in)	Count Rate	MLD (Ib/ft³)	In Situ Density (Ib/ft³)	Comp (%)	Limit (%)	Results
Appro	ox.Test Lo	cation: E	Bonita, Ca.										
1	5646 Corral Canyon Road	NA	20.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	140.10	96	≥95	Р
2	3613A Corral Canyon Road	NA	12.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	142.20	97	≥95	Р
3	3613B Corral Canyon Road	NA	10.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	139.50	96	≥95	Р
4	3651 Corral Canyon Road	NA	20.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	140.30	96	≥95	Р
5	3659 Corral Canyon Road	NA	15.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	140.00	96	≥95	Р
6	3667 Corral Canyon Road	NA	10.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	139.90	96	≥95	Р
7	3703 Corral Canyon Road	NA	10.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	139.80	96	≥95	Р

43 Asp		<b>VININ</b> Juclear D		Report					15950 Beri San Diego Ph: 858-97 Fax: 562.4	Re	Drive, Suite	н <mark>ND:W02-</mark>	21-01791	
Custo	Asphalt Nuclear Density Report         Customer:       ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123         Project:       County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,									Date of Issue: 5/7/2021     Issue No:       Project No.: 200638.2     Permit No.:       OSHPD:     DSA File #:       DSA AP #:				
	diction: bution:	County of Sa	n Diego						Approved Sir	gnatory: Andrew S	And the second s	Manager)	12	
<mark>Test</mark> Test No	Road		Offset (ft)	From	Mix	Lift	Layer Thickness	Count Rate	MLD (lb/ft <sup>3</sup> )	In Situ Density	Comp (%)		D 2950 Results	
۵nnra	ny Tost	Location:	Ronita Ca				(in)			(lb/ft³)				
8	3719 Corra Canyo Road	l NA	8.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	138.60	95	≥95	Р	
9	3735 Corra Canyo Road		8.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	140.10	96	≥95	Р	
10	3751 Corra Canyo Road	n NA	8.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	138.40	95	≥95	Ρ	
11	5607 Corra Canyo Road	n NA	10.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	142.20	97	≥95	Ρ	
12	3807 Corra Canyo Road	n NA	10.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	140.80	97	≥95	Ρ	
13	5530A Corra Canyo Road	n NA	10.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	138.70	95	≥95	Р	
14	5530E Corra Canyo Road	n NA	22.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	138.40	95	≥95	Р	
15	5530C Corra Canyo Road	n NA	20.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	138.10	95	≥95	Р	
16	3627 Corra Canyo Road	n NA	4.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	139.10	95	≥95	Р	

<b>S</b> en		VININ Iuclear D		Report					15950 Bern San Diego Ph: 858-97 Fax: 562.4	Re	Diego La Drive, Suite	H ND:W02-2	
•	omer: ect:	ATP Enginee 4211 Pondero San Diego, C County of Sa San Diego Co San Diego, C	ring Contra osa Avenue A, 92123 n Diego, As ounty Roads	ctors (Lehig , Suite C phalt Conc		Sout	h		ק⊢	e #:	8.2	l:	ssue No: 1
	diction: ibution:	County of Sa	n Diego						Approved Si	gnatory: Andrew S	A Bugrez (Branch	Manager)	
										gnatory. Andrew c			
Test Test No	t Rest Road		Offset (ft)	From	Mix	Lift	Layer Thickness (in)	Count Rate	MLD (lb/ft³)	In Situ Density (Ib/ft³)	Comp (%)	ASTM Limit (%)	D 2950 Results
Appr	ox.Test	Location: E	Bonita, Ca.										
17	3643 Corra Canyo Road	n NA	8.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	138.50	95	≥95	Р
18	3651 Corra Canyo Road		6.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	139.10	95	≥95	Р
19	3668 Corra Canyo Road	n NA	15.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	141.80	97	≥95	Р
20	3682 Corra Canyo Road	n NA	10.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	139.30	95	≥95	Р
21	3710 Corra Canyo Road	n NA	8.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	141.90	97	≥95	Р
22	3726 Corra Canyo Road	n NA	10.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	139.60	96	≥95	Р
23	5567 Corra Canyo Road	n NA	10.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	138.70	95	≥95	Р
24	5568 Corra Canyo Road	n NA	6.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	140.20	96	≥95	Р
25	3806 Corra Canyo Road	n NA	8.0	Centerline	21212415// 1/2" HMA 58-34M Type A	1	3.0	1 min.	145.90	138.60	95	≥95	Р



Contact: Patrick Terrell Quality Control Manager II Phone: (858) 602-5474 Fax: (951) 684-3186

Project:	San Diego County Overlay south		Date Sampled:	5/5/2021		
Material Description: Combined RAP		Time Sampled:	530am			
Material Source:		CCA La	akeside		Sampled By:	I. Montano
Sample Location:		Belt	Cut		Date Tested:	5/5/2021
Lot #:	Sublot #:		Tons Out:		Tested By:	I. Montano

## **RECYCLED ASPHALT PRODUCT**

## MOISTURE CONTENT OF RAP (CTM 370)

Wet Weight: 3155.3 Dry Weight:	3084.5	RAP Moisture:	2.3%
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## SIEVE ANALYSIS OF POST IGNITION OVEN RAP (CTM 202)

Basket Mass	288	81.2	Basket +	Basket + Sample		4431.4		HMA Sample Mass		0.2
Basket + Sample	Burned	431	1.3	Burned A	Agg Mass	143	30.1	Approx. O	il % TWM	6.20

Sie	ve Size	Weight Retained (grams)	Percent Retained (%)	Percent Passing (%)	Correction Factor (%)	Corrected Percent Passing
2"	(50mm)	0	0.0%	100.0%	0.0	100.0%
1-1/2"	(37.5mm)	0	0.0%	100.0%	0.0	100.0%
1"	(25mm)	0	0.0%	100.0%	0.0	100.0%
3/4"	(19mm)	0	0.0%	100.0%	0.0	100.0%
1/2"	(12.5mm)	28.8	2.0%	98.0%	+0.2	98.2%
3/8"	(9.5mm)	127.4	8.9%	91.1%	+0.6	91.7%
#4	4.75mm)	422.1	29.5%	70.5%	-0.8	69.7%
#8	(2.36mm)	105.5	43.8%	56.2%	+0.5	56.7%
#16	(1.18mm)	214.6	58.6%	41.4%	-0.7	40.7%
#30	(600µm)	286.3	68.4%	31.6%	-0.6	31.0%
#50	(300µm)	358.7	78.2%	21.8%	-0.2	21.6%
#100	(150µm)	420	86.5%	13.5%	+0.3	13.8%
#200	(75µm)	452.1	90.8%	9.2%	+0.5	9.7%
Mass	of #4 Split	519.6				-

Approved By:

atrick

Patrick Terrell Quality Control Manager II



**Contact: Patrick Terrell Quality Control Manager II** Phone: (858) 602-5474 Fax: (858) 513-0612

Project:		San Diego County Overlay south				rlay south		Date Sampled:	5/5/2021
Material De	scription:	21212415 1/2" HMA-A w/25% RAP			νP	Time Sampled:	600am		
Material So	urce:	CCA Lakeside		Sampled By:	I. Montano				
Sample Loc	cation:			Belt	Cut			Date Tested:	5/5/2021
Tons Out:		Load #		Lot #		Sublot #		Tested By:	I. Montano

## SIEVE ANALYSIS (CTM 202)

						Aggregate %	RAP %
Wet Weight:	4489.5	Dry Weight:	4406.2	% Moisture:	1.89%	75%	25%

									Spec	ification
Sie	ve Size	Weight Retained	Percent Retained		x Agg %	RAP Pass	x RAP %	Total Percent Passing		wable erance
2"	(50mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1-1/2"	(37.5mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1"	(25mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
3/4"	(19mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	100	
1/2"	(12.5mm)	287.2	6.5%	93.5%	70.1%	98.2%	24.5%	95%	96	90-100
3/8"	(9.5mm)	1097	24.9%	75.1%	56.3%	91.7%	22.9%	79%	77	71-83
#4	(4.75mm)	2212.3	50.2%	49.8%	37.3%	69.7%	17.4%	55%	55	48-62

Fine Agg Dry Weight:

520

										Spe	cification
Si	ieve Size	Weight Retained	Percent Retained	Agg Pass	x #4	x Agg %	RAP Pass	x RAP %	Total Percent Passing		owable lerance
#8	(2.36mm)	126.4	24%	76%	38%	28.3%	56.7%	14.2%	42%	43	38-48
#16	(1.18mm)	220.6	42%	58%	29%	21.5%	40.7%	10.2%	32%	33	
#30	(600µm)	323.4	62%	38%	19%	14.1%	31.0%	7.8%	22%	22	17-25
#50	(300µm)	415.9	80%	20%	10%	7.5%	21.6%	5.4%	13%	13	
#100	(150µm)	457.8	88%	12%	6%	4.5%	13.8%	3.5%	8%	7	
#200	(75µm)	479.6	92.2%	7.8%	3.9%	2.9%	9.7%	2.4%	5.3%	4.4	2.4-6.4

## SAND EQUIVALENT (CTM 217)

Approved by:

atrick enel

Patrick Terrell Quality Control Manager II

Specimen Number	Sand Reading	Clay Reading	Sand Equivalent	
1	4.2	6.6	64	Specification
2	4.1	6.6	63	47
3	4.2	6.7	63	47
		Average	63	



Project:	San Diego County	Overlay sou	uth	Date Sampled:	5/5/2021			
Міх Туре:	21212415 1/2" HM	A-A w/25%	RAP	Time Sampled:	831am Load #: 7			
Material Source:	CCA Lake	eside		Sampled By:	I. Montano			
Sample Location:	Truck Bed at Plant			Date Tested:	5/5/2021			
Ticket #:	1701255121	Tons Out: 134.95		Tested By:	I. Montano			

# ASPHALT BINDER CONTENT OF HMA BY THE IGNITION METHOD CALIFORNIA TEST METHOD 382

Calibration Information:						
Ignition Oven Identification:	Thermolyne NCAT Serial #: 0151796801150209					
Set Point Temperature from Calibration:	☑ 538°C					
Total ignition time from calibration (minutes):	46 - 56 minutes					
Asphalt Binder type and source:	PG 58-34 Holly					
Aggregate Source:	Hanson Aggregates, Vigilante Mine					
Correction Factor, CF (%):	0.45%					

Ignition	Oven	Procedure
----------	------	-----------

	% by Total Weight of Mix	% by Dry Weight of Agg				
Corrected Asphalt Content AC = A - CF - MC (%):	5.44%	5.75%				
Raw Aspahlt Content, A = ( $(M_i - M_f) \div M_i$ ) x 100 (%):	5.8	5.89%				
Final Mass of Sample Aggregate, $M_2$ - $M_e$ , $M_f$ (g)	141	1417.5				
Mass of Sample + Basket after burn off, $M_2$ (g):	429	4298.9				
Net Mass of of the Mixed Sample, $M_1$ - $M_{e_1}$ , $M_i$ (g):	150	06.2				
Mass of Mixed Sample + Basket, M <sub>1</sub> (g):	438	37.6				
Mass of Basket, M <sub>e</sub> (g):	288	31.4				

	0		
Target by TWM:	5.39%	Allowable Range	5.09 - 5.89
Target by DWA:	5.70%	Allowable Range	5.36 - 6.26

Form:	CCA-T308
Rev. 1.1	9/29/2017

Approved By: Saturk

Patrick Terrell - QC Manager II



**Contact: Patrick Terrell Quality Control Manager II** Phone: (858) 602-5474 Fax: (858) 513-0612

Project:		San Diego County Overlay south						Date Sampled:	5/5/2021
Material De	scription:	21212415 1/2" HMA-A w/25% RAP				w/25% RA	νP	Time Sampled:	1030am
Material So	urce:	CCA Lakeside				;		Sampled By:	I. Montano
Sample Loc	ation:	Belt Cut				Date Tested:	5/5/2021		
Tons Out:		Load #		Lot #		Sublot #		Tested By:	I. Montano

## SIEVE ANALYSIS (CTM 202)

						Aggregate %	RAP %
Wet Weight:	5063.4	Dry Weight:	4987.6	% Moisture:	1.52%	75%	25%

									Spec	ification
Sie	ve Size	Weight Retained	Percent Retained		x Agg %	RAP Pass	x RAP %	Total Percent Passing		owable erance
2"	(50mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1-1/2"	(37.5mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1"	(25mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
3/4"	(19mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	100	
1/2"	(12.5mm)	311.3	6.2%	93.8%	70.3%	98.2%	24.5%	95%	96	90-100
3/8"	(9.5mm)	1327.5	26.6%	73.4%	55.0%	91.7%	22.9%	78%	77	71-83
#4	(4.75mm)	2475	49.6%	50.4%	37.8%	69.7%	17.4%	55%	55	48-62

Fine Agg Dry Weight:

514.7

										Spe	cification
Si	ieve Size	Weight Retained	Percent Retained	Agg Pass	x #4	x Agg %	RAP Pass	x RAP %	Total Percent Passing		lowable lerance
#8	(2.36mm)	110.3	21%	79%	40%	29.7%	56.7%	14.2%	44%	43	38-48
#16	(1.18mm)	209.4	41%	59%	30%	22.4%	40.7%	10.2%	33%	33	
#30	(600µm)	326.4	63%	37%	18%	13.8%	31.0%	7.8%	22%	22	17-25
#50	(300µm)	414	80%	20%	10%	7.4%	21.6%	5.4%	13%	13	
#100	(150µm)	456.7	89%	11%	6%	4.3%	13.8%	3.5%	8%	7	
#200	(75µm)	474.6	92.2%	7.8%	3.9%	2.9%	9.7%	2.4%	5.4%	4.4	2.4-6.4

## SAND EQUIVALENT (CTM 217)

Approved by:

atrick enel

Patrick Terrell Quality Control Manager II

pecimen Number	Sand Reading	Clay Reading	Sand Equivalent		
1	4.2	6.5	65	Specification	
2	4.3	6.8	64	47	
3	4.3	6.9	63	47	
		Average	64		



Project:	San Diego County	Overlay sou	uth	Date Sampled:	5/5/2021			
Міх Туре:	21212415 1/2" HMA-A w/25% RAP			Time Sampled:	1110am	Load #:	41	
Material Source:	CCA Lakeside			Sampled By:	I. Montano			
Sample Location:	Truck Bed at Plant			Date Tested:	5/5/2021			
Ticket #:	1701255160 Tons Out: 776.51		Tested By:	I. Montano				

# ASPHALT BINDER CONTENT OF HMA BY THE IGNITION METHOD CALIFORNIA TEST METHOD 382

Calibration Information:						
Ignition Oven Identification:	Thermolyne NCAT Serial #: 0151796801150209					
Set Point Temperature from Calibration:	☑ 538°C					
Total ignition time from calibration (minutes):	46 - 56 minutes					
Asphalt Binder type and source:	PG 58-34 Holly					
Aggregate Source:	Hanson Aggregates, Vigilante Mine					
Correction Factor, CF (%):	0.45%					

	% by Total Weight of Mix	% by Dry Weight of Agg		
Corrected Asphalt Content AC = A - CF - MC (%):	5.27%	5.56%		
Raw Aspahlt Content, A = ( $(M_i - M_f) \div M_i$ ) x 100 (%):	5.7	2%		
Final Mass of Sample Aggregate, $M_2$ - $M_e$ , $M_f$ (g)	145	1452.3		
Mass of Sample + Basket after burn off, $M_2$ (g):	432	4325.9		
Net Mass of of the Mixed Sample, M <sub>1</sub> -M <sub>e,</sub> M <sub>i</sub> (g):	154	40.4		
Mass of Mixed Sample + Basket, M <sub>1</sub> (g):	441	14.0		
Mass of Basket, M <sub>e</sub> (g):	287	73.6		

MIX Moisture, MC	0		
Target by TWM:	5.39%	Allowable Range	5.09 - 5.89
Target by DWA:	5.70%	Allowable Range	5.36 - 6.26

Form:	CCA-T308
Rev. 1.1	9/29/2017

Approved By: Satrick Tenell

Patrick Terrell - QC Manager II



# HMA Physical Properties Worksheet

Client ATP Engineering Contractors
Project SD County Overlay South

Sample Location/ID 21212415 1/2" Type A PMAC

Job No. 200638.2

Lab No. W05-21-00892

Sampled by Jose Date Sampled 5/5/2021

Tested By R Clevenger

Date Tested 5/13/2021

CT 309 Maximum Theoretical Gravity	
Sample Weight	1849.5
Pyncnometer + H <sub>2</sub> O	7356.4
Sample+Pyncnometer+H <sub>2</sub> O	8454.9
Temperature H <sub>2</sub> O	25.0
Maximum Specific Gravity	2.463

Lab Tested Maximum Density			
Briquette ID	1	2	3
Thickness	2.57	2.56	2.55
Weight in Air	1219.4	1221.8	1221.1
Paraffin Coated Wt	1236.2	1235.6	1231.2
Weight in Water	695.8	695.8	696.7
Vol. cc	521.7	524.5	523.3
Sp. Gr.	2.337	2.330	2.334
PCF	145.5	145.0	145.2
Specific Gravity, (average)			2.333
Weight per cubic foot, (average) 145.2			
	Air Voids (a	verage), %	5.3

CT 366 Stability						
2000	3000	4000	5000lbs (R)	6000	Turn Dial (T)	Stability
12	23	31	42.0	52	2.97	39
13	24	32	44.0	55	3.10	37
12	22	30	40.0	51	3.02	40
Average Stability			38			

All reports remain the property of Twining, Inc. Authorization for publication of our reports, conclusions, or extracts from or regarding them is reserved pending our written approval as a mutual protection to clients, the public, and ourselves.



Twining, Inc. - San Diego Lab 15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424

Daily Field Report					Report No: DFR:W02-21-01518-O1		
		•			Date of Issue: 04/22/2021	Issue No: 1	
Customer:			tors (Lehigh Hanson)		Project No: 200638.2		
		Ponderosa Avenue,	Suite C		Permit No:		
		iego, CA 92123			OSHPD:		
Project:			halt Concrete Overlay South		DSA File #:		
		iego County Roads			DSA AP #:		
	San D	iego, CA					
Distribution: Jurisdiction:	Count	y of San Diego			Approved Signatory: Andrew S		
	Count					500102	
Test Date:		Friday, April 16, 2	2021	Inspector:	Jose Franco-Casas		
Inspection N	0.:						
Contractor:		ATP General Eng	• •				
Equipment C	DSV.:	Cat CB44B smoo		ctor, f) Dynapac C	Cat CRC distributor truck, d) Ca CC1200 vibratory roller, g) Cat C		
Time Arrived	l:	8:15 AM	Time Departed:	4:00 PM	Time on Site:	7.75 Hrs	
Lunch Start:		11:15 AM	Lunch End:	11:45 AM	Travel Time:	2 Hrs	
Mileage:		74.0	Weather:	Sunny			
Types of Te	esting /	Observations					
Asphalt - Fi							
Referenced	Docur	nents					
		/ 1/2" HMA 58-34N	1 W/fiber.				
Observatio	ns / Re	marks					
			Reason for Travel: Trans	sport of CPN Inuc	lear gauge and AC gear Mile	s to Jobsite: 37	
Miles from Jo	bsite:_3	7 Travel to Jobs	ite (start):_7:15am Trave	el to Jobsite (end)	):_8:15am Travel from Jobsite ment Used: _CPN nuclear gaug	е	
(3(a)()+.00p	··· ··c		end)0.00pm Expenses.	Equipi	ment osedor N nuclear gaug	le	
-		ENSITY TESTING					
Picked up the							
•		he San Diego office		oncrete overlav n	blaced on Corral Canyon Road-s	shoulders North &	
					eman Looney to discuss the sco		
					212415F// 1/2" HMA 58-34M w/		
	was batched at CCA-Lakeside Plant.						
		•			as swept prior tack coat applica		
					at CB44B smooth drums vibrator at CB7 double drums vibratory		
					ge, these density test meet 95%		
		ersonnel was notifie					
Today asphal	t concre	te production was	857.60 tons.				



Twining, Inc. - San Diego Lab

15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424

Daily F	ield Report	Report No: DFR:W02-21-01518-01           Date of Issue: 04/22/2021         Issue No: 1
Customer:	ATP Engineering Contractors (Lehigh Hanson)	Project No: 200638.2
	4211 Ponderosa Avenue, Suite C	Permit No:
	San Diego, CA 92123	OSHPD:
Project:	County of San Diego, Asphalt Concrete Overlay South	DSA File #:
	San Diego County Roads	DSA AP #:
	San Diego, CA	
Distribution:		antot
Jurisdiction:	County of San Diego	Approved Signatory: Andrew Suarez

All inspections based on minimum of 4 hours and over 4 hours - 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.



Jose Franco-Casas, Inspector/Technician

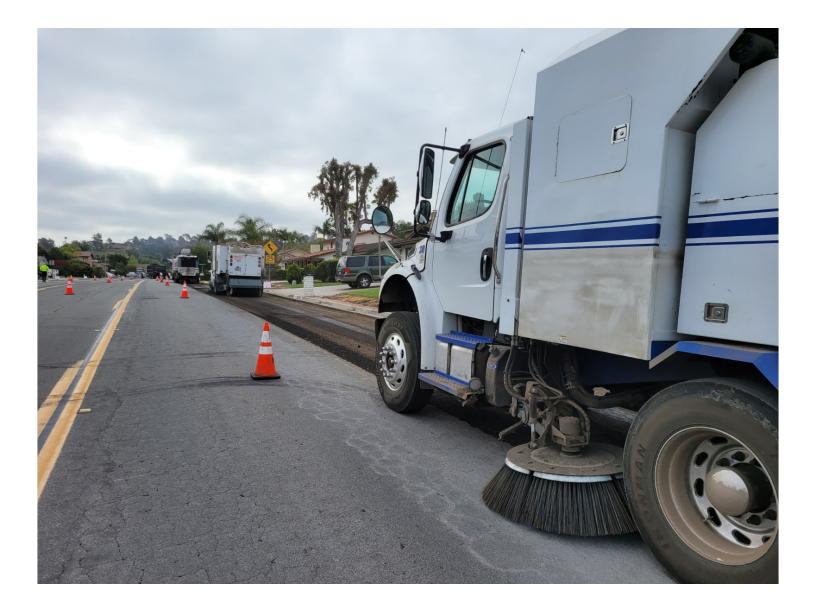
### Remarks:

This report will be distributed to architect, engineer, client, and governing jurisdiction (e.g. DSA) as required by applicable codes and project documents.

Certificate of Compliance		
The Work 🗸 Was 🗌 Was Not	The Work Inspected 🗸 Met 🗌 Did Not Meet	Material Sampling
inspected in accordance with the requirements of the County of San Diego approved documents	the requirements of the County of San Diego approved documents	was not performed

All Reports Remain The Property of Twining, Inc. Authorization For The Publication Of Our Reports, Conclusions, Or Extracts From Or Regarding Them is Reserved Pending Our Written Approval As A Mutual Protection To Clients, The Public and Ourselves

	<b>VINING</b> eld Report	Twining, Inc San Diego Lab           15950 Bernardo Center Drive, Suite H           San Diego, CA 92127           Ph: 858-974-3750           Fax: 562.426.6424           Report No: DFR:W02-21-01518-O1           Date of Issue: 4/22/2021
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdiction Distribution	n: County of San Diego n:	Approved Signatory: Andrew Suarez (Branch Manager)



	<b>VINING</b> eld Report	Twining, Inc San Diego Lab           15950 Bernardo Center Drive, Suite H           San Diego, CA 92127           Ph: 858-974-3750           Fax: 562.426.6424           Report No: DFR:W02-21-01518-O1           Date of Issue: 4/22/2021
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdiction Distribution	n: County of San Diego n:	Approved Signatory: Andrew Suarez (Branch Manager)



		Twining, Inc San Diego Lab           15950 Bernardo Center Drive, Suite H           San Diego, CA 92127           Ph: 858-974-3750           Fax: 562.426.6424           Report No: DFR:W02-21-01518-01
Daily Field Repo		Date of Issue: 4/22/2021 Issue No: 1
4211 Pon San Diego <b>Project:</b> County of	eering Contractors (Lehigh Hanson) lerosa Avenue, Suite C , CA, 92123 San Diego, Asphalt Concrete Overlay South County Roads , CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdiction: County of Distribution:	San Diego	Approved Signatory: Andrew Suarez (Branch Manager)



₩т\	WINING	<b>Twining, Inc San Diego Lab</b> 15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424
Daily Fie	eld Report	Report No: DFR:W02-21-01518-O1           Date of Issue: 4/22/2021         Issue No: 1
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdiction Distribution	n: County of San Diego n:	antest
		Approved Signatory: Andrew Suarez (Branch Manager)



**Twining, Inc. - San Diego Lab** 15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562 426 6424

		Fax: 562.426.6424
Asphalt	Nuclear Density Report	Report No: ND:W02-21-01518           Date of Issue: 4/22/2021         Issue No: 1
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdictior Distributior	ւ: County of San Diego ։	Approved Signatory: Andrew Suarez (Branch Manager)

Testing Details				
Tested By:	Jose Franco-Casas	Date Tested:	4/16/2021	
Plant:	Lakeside	Gauge Make/Model:		
Method of Measurement:	Backscatter	Density Standard Count:	36330	
Gauge Serial:		Moisture Standard Count:	8230	
Calibration Date:		Weather:	Sunny	
Calibration Source:				

Test	t Result	S										ASTM	D 2950
Test No	Road	Station	Offset (ft)	From	Mix	Lift	Layer Thickness (in)	Count Rate	MLD (lb/ft³)	In Situ Density (Ib/ft³)	Comp (%)	Limit (%)	Results
Appro	ox.Test Lo	cation: E	Bonita, Ca.										
1	3814 Corral Canyon Road	NA	30.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	138.80	95	≥95	Р
2	3830 Corral Canyon Road	NA	25.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	140.10	96	≥95	Р
3	3842 Corral Canyon Road	NA	27.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	139.90	95	≥95	Р
4	3860 Corral Canyon Road	NA	25.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	140.20	96	≥95	Р
5	3878 Corral Canyon Road	NA	30.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	140.50	96	≥95	Р
6	5636 Corral Canyon Road	NA	30.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	139.30	95	≥95	Р
7	3926 Corral Canyon Road	NA	30.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	141.50	97	≥95	Р

43 Asp		<b>VININ</b> Juclear D		Report					15950 Beri San Diego Ph: 858-97 Fax: 562.4	Re	Drive, Suite	н <mark>ND:W02-</mark>	21-01518
Custo Proje	omer: ct:	ATP Enginee 4211 Ponder San Diego, C County of Sa San Diego C San Diego, C	ering Contrac osa Avenue A, 92123 n Diego, As ounty Roads	ctors (Lehig , Suite C phalt Conc		Date of Issue: 4/22/2021     Issue No:       Project No.: 200638.2     Permit No.:       OSHPD:     DSA File #:       DSA AP #:     DSA AP #:							
	diction: bution:	County of Sa	n Diego						Approved Sid	gnatory: Andrew S	Fuarez (Branch	Manager)	
Test	Resu		Offset (ft)	From	Mix	Lift	Layer	Count	MLD	In Situ	Comp	ASTM Limit	D 2950 Results
No							Thickness (in)	Rate	(lb/ft³)	Density (lb/ft³)	(%)	(%)	
Appro	ox.Test	Location:	Bonita, Ca.	1	1				1				
8	3949 Corra Canyo Road	n NA	27.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	139.50	95	≥95	Р
9	3966 Corra Canyo Road	n NA	28.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	139.90	95	≥95	Р
10	4010 Corra Canyo Road	n NA	28.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	138.90	95	≥95	Ρ
11	4010 Corra Canyo Road	n			21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	140.30	96	≥95	Р
12	4036 Corra Canyo Road	n NA	28.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	139.60	95	≥95	Р
13	5835 Corra Canyo Road	n NA	30.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	139.90	95	≥95	Р
14	5904 Corra Canyo Road	n NA	28.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	138.80	95	≥95	Р
15	5903 Corra Canyo Road	n NA	28.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	139.60	95	≥95	Р
16	4011 Corra Canyo Road	n NA	28.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	138.70	95	≥95	Р

4sn		ININ clear D	<b>IG</b> ensity F	Renort					15950 Beri San Diego Ph: 858-97 Fax: 562.4	26.6424 <b>Re</b>	Drive, Suite port No:	ND:W02-2	
	omer: AT 42 Sa ct: Co Sa	P Enginee 11 Ponder n Diego, C unty of Sa	ring Contra osa Avenue A, 92123 n Diego, As ounty Roads	Date of Issue: 4/22/2021 Issue No: 1 Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:									
Juris Distri	diction: Cc ibution:	ounty of Sa	n Diego						Approved Sig	gnatory: Andrew S	Guarez (Branch	Manager)	2
<mark>Test</mark> Test No	t Result <sub>Road</sub>	<mark>S</mark> Station	Offset (ft)	From	Mix	Lift	Layer Thickness	Count Rate	MLD (lb/ft³)	In Situ Density	Comp (%)	ASTM Limit (%)	D 2950 Results
Appro	ox.Test Lo	cation: E	Bonita, Ca.				(in)			(lb/ft³)			
17	5801 Corral Canyon Road	NA	26.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	139.10	95	≥95	Р
18	3949 Corral Canyon Road	NA	27.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	140.20	96	≥95	Р
19	3933 Corral Canyon Road	NA	20.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	140.50	96	≥95	Р
20	3917 Corral Canyon Road	NA	28.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	141.20	96	≥95	Р
21	3903 Corral Canyon Road	NA	26.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	138.90	95	≥95	Р
22	5703 Corral Canyon Road	NA	25.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	139.10	95	≥95	Р



Contact: Patrick Terrell Quality Control Manager II Phone: (858) 602-5474 Fax: (951) 684-3186

Project:		San Diego County Overlay South				Date Sampled:	4/16/2021	
Material Description: Combined RAP				ed RAP	Time Sampled: 600am			
Material S	Material Source: CCA Lakeside					Sampled By:	I. Montano	
Sample Location:			Belt	Cut		Date Tested:	4/16/2021	
Lot #:		Sublot #:		Tons Out:		Tested By:	I. Montano	

## **RECYCLED ASPHALT PRODUCT**

### MOISTURE CONTENT OF RAP (CTM 370)

Wet Weight:   3203.8   Dry Weight:   3141.7   RAP Moisture:   2	.0%
---	-----

## SIEVE ANALYSIS OF POST IGNITION OVEN RAP (CTM 202)

Basket Mass	287	2.3	Basket +	- Sample	443	4430.1		HMA Sample Mass		57.8
Basket + Sample	Basket + Sample Burned 4327.9		27.9	7.9 Burned A		145	55.6	Approx. Oil % TWM		5.25

Sie	ve Size	Weight Retained (grams)	Percent Retained (%)	Percent Passing (%)	Correction Factor (%)	Corrected Percent Passing
2"	(50mm)	0	0.0%	100.0%	0.0	100.0%
1-1/2"	(37.5mm)	0	0.0%	100.0%	0.0	100.0%
1"	(25mm)	0	0.0%	100.0%	0.0	100.0%
3/4"	(19mm)	0	0.0%	100.0%	0.0	100.0%
1/2"	(12.5mm)	23.8	1.6%	98.4%	+0.2	98.6%
3/8"	(9.5mm)	103	7.1%	92.9%	+0.6	93.5%
#4	4.75mm)	386.5	26.6%	73.4%	-0.8	72.6%
#8	(2.36mm)	101	41.3%	58.7%	+0.5	59.2%
#16	(1.18mm)	189.5	54.3%	45.7%	-0.7	45.0%
#30	(600µm)	268.8	65.9%	34.1%	-0.6	33.5%
#50	(300µm)	346.4	77.2%	22.8%	-0.2	22.6%
#100	(150µm)	401.6	85.3%	14.7%	+0.3	15.0%
#200	(75µm)	435.7	90.3%	9.7%	+0.5	10.2%
Mass	of #4 Split	502.0				-

Approved By:

atrick

Patrick Terrell Quality Control Manager II



Contact: Patrick Terrell Quality Control Manager II Phone: (858) 602-5474 Fax: (858) 513-0612

Project:		Sa	an Die	go Coun	ty Ovei	rlay South		Date Sampled:	4/16/2021
Material Des	cription:	21212415 FIBER 1/2" HMA-A w/25% RAP						Time Sampled:	605am
Material Sou	irce:	CCA Lakeside						Sampled By:	I. Montano
Sample Loca	ation:	Belt Cut						Date Tested:	4/16/2021
Tons Out:		Load #		Lot #		Sublot #		Tested By:	I. Montano

## SIEVE ANALYSIS (CTM 202)

						Aggregate %	RAP %
Wet Weight:	5321.0	Dry Weight:	5235.1	% Moisture:	1.64%	75%	25%

									Specifi	cation
Sieve Size		Weight Retained	Percent Retained		x Agg %	RAP Pass	x RAP %	Total Percent Passing	Allow Toler	
2"	(50mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1-1/2"	(37.5mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1"	(25mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
3/4"	(19mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	100	
1/2"	(12.5mm)	481.5	9.2%	90.8%	68.1%	98.6%	24.6%	93%	96 9	0-100
3/8"	(9.5mm)	1402	26.8%	73.2%	54.9%	93.5%	23.4%	78%	77 7	'1-83
#4	(4.75mm)	2662.1	50.9%	49.1%	36.9%	72.6%	18.2%	55%	55 4	8-62

Fine Agg Dry Weight:

514.8

										Spe	cification
Sieve Size		Weight Retained	Percent Retained	Agg Pass	x #4	x Agg %	RAP Pass	x RAP %	Total Percent Passing		lowable lerance
#8	(2.36mm)	100.3	19%	81%	40%	29.7%	59.2%	14.8%	44%	43	38-48
#16	(1.18mm)	185.5	36%	64%	31%	23.6%	45.0%	11.3%	35%	33	
#30	(600µm)	294.2	57%	43%	21%	15.8%	33.5%	8.4%	24%	22	17-25
#50	(300µm)	399	78%	22%	11%	8.3%	22.6%	5.6%	14%	13	
#100	(150µm)	451.9	88%	12%	6%	4.5%	15.0%	3.7%	8%	7	
#200	(75µm)	474.9	92.2%	7.8%	3.8%	2.9%	10.2%	2.6%	5.4%	4.4	2.4-6.4

## SAND EQUIVALENT (CTM 217)

Specimen Sand Clay Sand Number Reading Reading Equivalent 1 4.3 63 6.9 Specification 2 4.1 6.6 63 47 3 4.2 6.6 64 63 Average

Approved by:

enell atrick

Patrick Terrell Quality Control Manager II



Project:	San Diego County Overlay South			Date Sampled:	4/16/2021			
Mix Type:	21212415 FIBER 1/2"	HMA-A w/2	5% RAP	Time Sampled:	926am	Load #:	7	
Material Source:	CCA Lak	eside		Sampled By:	I. Montano			
Sample Location:	Truck Bed at Plant			Date Tested:	4/16/2021			
Ticket #:	1701254306	701254306 Tons Out: 130.16		Tested By:	I. Montano			

## ASPHALT BINDER CONTENT OF HMA BY THE IGNITION METHOD CALIFORNIA TEST METHOD 382

Calibration Information:									
Ignition Oven Identification: Thermolyne NCAT Serial #: 0151796801150209									
Set Point Temperature from Calibration:	⊠ 538°C □ 482°C □ 427°C								
Total ignition time from calibration (minutes):	46 - 56 minutes								
Asphalt Binder type and source:	PG 58-16 San Joaquin								
Aggregate Source:	Hanson Aggregates, Vigilante Mine								
Correction Factor, CF (%):	0.45%								

Ignitior	n Oven Procedure	
Mass of Basket, M <sub>e</sub> (g):	288	0.9
Mass of Mixed Sample + Basket, M <sub>1</sub> (g):	450	4.7
Net Mass of of the Mixed Sample, $M_1$ - $M_{e_1}$ , $M_i$ (g):	162	3.8
Mass of Sample + Basket after burn off, M <sub>2</sub> (g):	441	1.9
Final Mass of Sample Aggregate, M <sub>2</sub> - M <sub>e</sub> , M <sub>f</sub> (g)	153	1.0
Raw Aspahlt Content, A = ( $(M_i - M_f) \div M_i$ ) x 100 (%):	5.7	1%
Corrected Asphalt Content AC = A - CF - MC (%):	5.26%	5.56%
	% by Total Weight of Mix	% by Dry Weight of Agg

MIX Moisture, MC	0		
Target by TWM:	5.39%	Allowable Range	5.09 - 5.89
Target by DWA:	5.70%	Allowable Range	5.36 - 6.26

Form: CCA-T308 Rev. 1.1 9/29/2017

Approved By: Natrick, enell

Patrick Terrell - QC Manager II



**Contact: Patrick Terrell Quality Control Manager II** Phone: (858) 602-5474 Fax: (858) 513-0612

Project:		San Diego County Overlay South						Date Sampled:	4/16/2021
Material Des	scription:	21212415 FIBER 1/2" HMA-A w/25% RAP				A-A w/25%	RAP	Time Sampled:	1100am
Material Sou	irce:	CCA Lakeside				;		Sampled By:	I. Montano
Sample Loca	Sample Location: Belt Cut				Date Tested:	4/16/2021			
Tons Out:		Load #		Lot #		Sublot #		Tested By:	I. Montano

## **SIEVE ANALYSIS** (CTM 202)

						Aggregate %	RAP %
Wet Weight:	5874.3	Dry Weight:	5779.3	% Moisture:	1.64%	75%	25%

									Specif	fication
Sieve Size		Weight Retained	Percent Retained		x Agg %	RAP Pass	x RAP %	Total Percent Passing		wable rance
2"	(50mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1-1/2"	(37.5mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1"	(25mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
3/4"	(19mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	100	
1/2"	(12.5mm)	499.7	8.6%	91.4%	68.5%	98.6%	24.6%	93%	96	90-100
3/8"	(9.5mm)	1503.2	26.0%	74.0%	55.5%	93.5%	23.4%	79%	77	71-83
#4	(4.75mm)	2874.2	49.7%	50.3%	37.7%	72.6%	18.2%	56%	55	48-62

Fine Agg Dry Weight:

518.2

										Spe	cification
Sieve Size		Weight Retained	Percent Retained	Agg Pass	x #4	x Agg %	RAP Pass	x RAP %	Total Percent Passing		lowable lerance
#8	(2.36mm)	118.3	23%	77%	39%	29.1%	59.2%	14.8%	44%	43	38-48
#16	(1.18mm)	188.4	36%	64%	32%	24.0%	45.0%	11.3%	35%	33	
#30	(600µm)	319.9	62%	38%	19%	14.4%	33.5%	8.4%	23%	22	17-25
#50	(300µm)	405.7	78%	22%	11%	8.2%	22.6%	5.6%	14%	13	
#100	(150µm)	468.2	90%	10%	5%	3.6%	15.0%	3.7%	7%	7	
#200	(75µm)	480.8	92.8%	7.2%	3.6%	2.7%	10.2%	2.6%	5.3%	4.4	2.4-6.4

## SAND EQUIVALENT (CTM 217)

Specimen Number	Sand Reading	Clay Reading	Sand Equivalent	
1	4.2	6.7	63	Specification
2	4.2	6.8	62	47
3	4.1	6.6	63	47
		Average	63	

Approved by:

enell atrick,

Patrick Terrell Quality Control Manager II



Project:	San Diego County Overlay South		Date Sampled:	4/16/2021			
Міх Туре:	21212415 FIBER 1/2" HMA-A w/25% RAP		Time Sampled:	119pm	Load #:	42	
Material Source:	CCA Lakeside		Sampled By:	I. Montano			
Sample Location:	Truck Bed a	Truck Bed at Plant		Date Tested:	4/16/	2021	
Ticket #:	1701254389	803.11	802.11	Tested By:	I. Mo	ntano	

## ASPHALT BINDER CONTENT OF HMA BY THE IGNITION METHOD CALIFORNIA TEST METHOD 382

Calibration Information:			
Ignition Oven Identification: Thermolyne NCAT Serial #: 0151796801150209			
Set Point Temperature from Calibration:	⊠ 538°C □ 482°C □ 427°C		
Total ignition time from calibration (minutes):	46 - 56 minutes		
Asphalt Binder type and source:	PG 58-16 San Joaquin		
Aggregate Source:	Hanson Aggregates, Vigilante Mine		
Correction Factor, CF (%):	0.45%		

Ignitior	n Oven Procedure			
Mass of Basket, M <sub>e</sub> (g):	28	79.9		
Mass of Mixed Sample + Basket, M <sub>1</sub> (g):	44	75.2		
Net Mass of of the Mixed Sample, $M_1$ - $M_{e_1}$ , $M_i$ (g):	15	95.3		
Mass of Sample + Basket after burn off, M <sub>2</sub> (g):	43	4384.3		
Final Mass of Sample Aggregate, $M_2$ - $M_e$ , $M_f$ (g)	15	1504.4		
Raw Aspahlt Content, A = ( $(M_i - M_f) \div M_i$ ) x 100 (%):	x 100 (%): 5.70%			
Corrected Asphalt Content AC = A - CF - MC (%):	5.25%	5.54%		
	% by Total Weight of Mix	% by Dry Weight of Agg		

Mix Moisture, MC	0		
Target by TWM:	5.39%	Allowable Range	5.09 - 5.89
Target by DWA:	5.70%	Allowable Range	5.36 - 6.26

Form: CCA-T308 Rev. 1.1 9/29/2017

Approved By: Natrick, enell

Patrick Terrell - QC Manager II



Twining, Inc. - San Diego Lab 15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424

Daily Field Report			Report No: DFR:W02-21-01547-01		
	report			Date of Issue: 04/22/2021	Issue No: 1
				Project No: 200638.2	
		Suite C		Permit No:	
	-				
	• •	•	th		
	• •	i		DSA AP #:	
San Di	ego, CA				
				anter	
County	_			Approved Signatory: Andrew S	Suarez
	Tuesday, April 2	20, 2021	Inspector:	Jose Franco-Casas	
).:					
		• •			
osv.:	CB44B smooth	drums vibratory compacto	r, f) Dynapac CC12	200 smooth drums	)B paver, e) Cat
	•••	-			8.5 Hrs
		-			2 Hrs
	76.0	Weather:	Sunny		-
sting /	Observations				
-					
	, ,				
		M W/Fiber.			
s / Ror	narke				
		Reason for Travel: Tran	sport of CPN nuclea	ar gauge, AC gear and AC sam	ples. Miles to
Miles fr	om Jobsite:_38_	_ Travel to Jobsite (start):_	_6:00am Travel to	o Jobsite (end):_7:00am Trav	vel from Jobsite
density TP repr ay at Cc e HMA ng oper ete place billing per No. 10 cardboa AC con ATP rep	gauge, AC gear a esentative to disc prral Canyon Roa ID 21212415F//1/ rations and a med ement with a Cat erformed with a Dy , Truck No. SDA1 rd boxes, 8 for the paction test usin presentative was	and truck from the San Die cuss the scope of work for d, North/South bound, app /2" HMA 58-34M W/Fiber, chanical broom sweeping of 10-20B paver, initial break ynapac CC 1200 roller, an 24, Ticket No. 170125446 e County, and 4 for Twinin g a CPN MC-1DR-P Porta notified.	today. Contractor c proximately between imported from CCA each road prior tack kdown performed w id final rolling with a 34, Asphalt Concret ig, these boxes wer aprobe nuclear gaug	n Leadrope Way to Jockey Way A-Lakeside Plant. < coat application. ith a Cat CB44B vibratory comp a Cat CB7 vibratory compactor. e temperature was 275°F, at 18 re transported to Twining in Sar	y, in Bonita, Ca. pactor, 89.44 tons. Cast n Diego for testing.
	ATP Er 4211 P San Did County San Did San Did San Did San Did County C	ATP Engineering Contract 4211 Ponderosa Avenue, San Diego, CA 92123 County of San Diego, Asy San Diego County Roads San Diego, CA County of San Diego Tuesday, April 2 Tuesday, April 2 Topout and a metal the from Jobsite: _38_ Theorem Jobsite: _38_ Th	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA 92123 County of San Diego, Asphalt Concrete Overlay Sour San Diego County Roads San Diego, CA County of San Diego Tuesday, April 20, 2021  ATP General Engineering Dosv.: a) Mechanical grinder, b) Mechanical brood CB44B smooth drums vibratory compactor roller, g) Cat CB7 smooth drums vibratory 7:00 AM Time Departed: 11:15 AM Lunch End: 76.0 Weather: Sting / Observations Id Density Testing Documents 415F // 1/2" HMA 58-34M W/Fiber. S / Remarks 8.0_OT:_2.0_DT: Reason for Travel:_Tran Miles from Jobsite:_38 Travel to Jobsite (start):_ n_ Travel from Jobsite (end):_4:30pm Expense ELD DENSITY TESTING density gauge, AC gear and truck from the San Die TP representative to discuss the scope of work for ay at Corral Canyon Road, North/South bound, app e HMA ID 21212415F//1/2" HMA 58-34M W/Fiber, ng operations and a mechanical broom sweeping the placement with a Cat 10-20B paver, initial bread Diling performed with a Dynapac CC 1200 roller, ar No. 10, Truck No. SDA124, Ticket No. 170125446 ardboard boxes, 8 for the County, and 4 for Twinir AC compaction test using a CPN MC-1DR-P Porta ATP representative was notified.	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA County of San Diego Tuesday, April 20, 2021 Inspector: .: ATP General Engineering Dev.: a) Mechanical grinder, b) Mechanical broom, c) Bear Cat CR CB44B smooth drums vibratory compactor, f) Dynapac CC1: roller, g) Cat CB7 smooth drums vibratory roller, h) Deere 2 7:00 AM Time Departed: 3:30 PM 11:15 AM Lunch End: 11:45 AM 76.0 Weather: Sunny Sting / Observations Id Density Testing Documents 8.0_OT:_2.0_DT: Reason for Travel:_Transport of CPN nucle Miles from Jobsite (end):_4:30pm_ Expenses: Equipr ELD DENSITY TESTING density gauge, AC gear and truck from the San Diego office. TP representative to discuss the scope of work for today. Contractor co ay at Corral Canyon Road, North/South bound, approximately betweeg e HMA ID 21212415F/1/2" HMA 58-34M W/Fiber, imported from CC/ ay at Corral Canyon Road, North/South bound, approximately betweeg e HMA ID 21212415F/1/2" HMA 58-34M W/Fiber, imported from CC/ ay at Corral Canyon Road, North/South bound, approximately betweeg e HMA ID 21212415F/1/2" HMA 58-34M W/Fiber, imported from CC/ ay at Corral Canyon Road, North/South bound, approximately betweeg e HMA ID 21212415F/1/2" HMA 58-34M W/Fiber, imported from CC/ ay at Corral Canyon Road, North/South bound, approximately betweeg e HMA ID 21212415F/1/2" HMA 58-34M W/Fiber, imported from CC/ ay at Corral Canyon Road, North/South bound, approximately betweeg e HMA ID 201212415F/1/2" HMA 58-34M W/Fiber, imported from CC/ ay at Corral Canyon Road, North/South bound, approximately betweeg e HMA ID 20120, Truck No. SDA124, Ticket No. 1701254464, Asphalt Concret ardboard boxes, 8 for the County, and 4 for Twining, these boxes wer AC compaction test using a CPN MC-1DR-P Portaprobe nuclear gaug	ATP Engineering Contractors (Lehigh Hanson)       Project No: 200638.2         4211 Ponderosa Avenue, Suite C       Permit No:         San Diego, CA 92123       OstHPD:         County of San Diego, Asphalt Concrete Overlay South       DSA Flie #:         San Diego, CA       DSA Pie:         San Diego, CA       DSA Flie #:         San Diego, CA       DSA Flie #:         San Diego, CA       DSA Flie #:         County of San Diego       Approved Signatory: Andrew:         Tuesday, April 20, 2021       Inspector:       Jose Franco-Casas         .:       ATP General Engineering       Jose Tranco-Casas       .:         .:       ATP General Engineering       Jose Tranco Casas       .:         .:       Time Departed:       3:30 PM       Time on Site:         .:       11:15 AM       Lunch End:       11:45 AM       Travel Ti



### Twining, Inc. - San Diego Lab

15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424

Daily Field Report		Report No: DFR:W02-21-01547-01           Date of Issue: 04/22/2021         Issue No: 1
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA	Project No: 200638.2 Permit No: OSHPD: DSA File #: DSA AP #:
Distribution: Jurisdiction:	County of San Diego	Approved Signatory: Andrew Suarez

All inspections based on minimum of 4 hours and over 4 hours - 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.



Jose Franco-Casas, Inspector/Technician

#### Remarks:

This report will be distributed to architect, engineer, client, and governing jurisdiction (e.g. DSA) as required by applicable codes and project documents.

Certificate of Compliance		
The Work 🗹 Was 🗌 Was Not	The Work Inspected / Met Did Not Meet	The Material Sampling 🗸 Was 🗌 Was Not
inspected in accordance with the requirements of the County of San Diego approved documents	the requirements of the County of San Diego approved documents	performed in accordance with the requirements of the County of San Diego approved documents

All Reports Remain The Property of Twining, Inc. Authorization For The Publication Of Our Reports, Conclusions, Or Extracts From Or Regarding Them is Reserved Pending Our Written Approval As A Mutual Protection To Clients, The Public and Ourselves

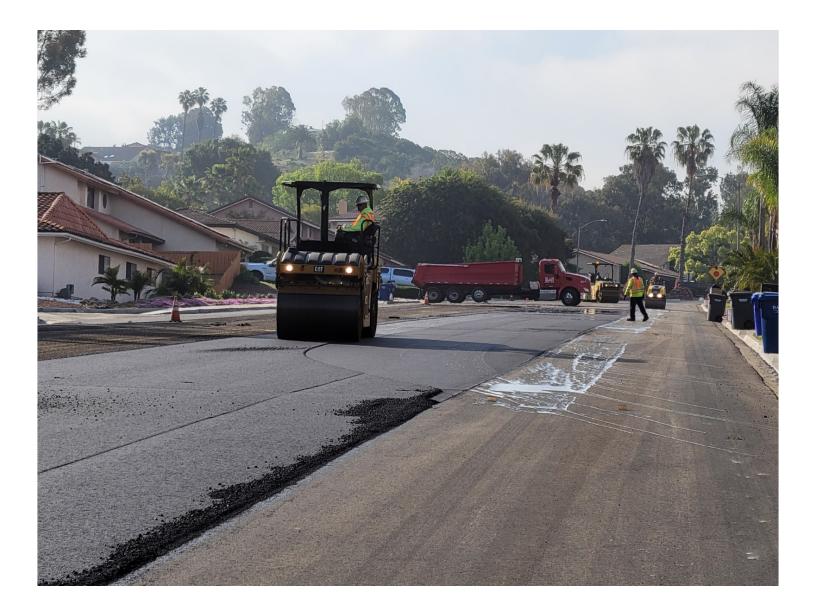
	<b>VINING</b> eld Report	Twining, Inc San Diego Lab           15950 Bernardo Center Drive, Suite H           San Diego, CA 92127           Ph: 858-974-3750           Fax: 562.426.6424           Report No: DFR:W02-21-01547-01           Date of Issue: 4/22/2021
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdictior Distributior	n: County of San Diego n:	Approved Signatory: Andrew Suarez (Branch Manager)



	<b>VINING</b> eld Report	Twining, Inc San Diego Lab           15950 Bernardo Center Drive, Suite H           San Diego, CA 92127           Ph: 858-974-3750           Fax: 562.426.6424           Report No: DFR:W02-21-01547-01           Date of Issue: 4/22/2021
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdictior Distributior	n: County of San Diego n:	Approved Signatory: Andrew Suarez (Branch Manager)



TWINING Daily Field Report		Twining, Inc San Diego Lab           15950 Bernardo Center Drive, Suite H           San Diego, CA 92127           Ph: 858-974-3750           Fax: 562.426.6424           Report No: DFR:W02-21-01547-01           Date of Issue: 4/22/2021
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdiction Distribution	1: County of San Diego 1:	Approved Signatory: Andrew Suarez (Branch Manager)



	<b>VINING</b> eld Report	Twining, Inc San Diego Lab           15950 Bernardo Center Drive, Suite H           San Diego, CA 92127           Ph: 858-974-3750           Fax: 552.426.6424           Report No: DFR:W02-21-01547-C           Date of Issue: 4/22/2021	
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:	
Jurisdiction Distribution	n: County of San Diego n:	Approved Signatory: Andrew Suarez (Branch Manager)	

HOT MIX AS	Armive under the signed of the	SCALE WEIGHT           Gross         62,500 LB *           Tare         24,420 LB/P.T.           Tare         38,080 LB *           Net         1000000000000000000000000000000000000	San Diego County Overlay-South South County Product 21212415F 21212415F Environmer	CALFORNA COMMERCIA ASPAUL HEIDELBERGCEMENTGroup WEIGHMASTER STATION 4433000 12451 Vigilante Rd Lakeside, Ca 92040	
MIRAMAR HOT MIX ASPHALT, SEAL, EMULSION, RECYCLING COLD MIX & FZ STREET	Finish Unloading	GROSS & TARE Drivers Always On Driver State 2 Grant V Over Coss Carly Over Coss Carly Over Coss Carly Over Coss Carly Deputy Weighmaster Free Statute Processor	rlay-South Couroent couroent HEIDELBERG Description 1/2" HMA 58-34M w/Fiber Environmental Fee	TICKET NO     1701254464       Customer Job. No.     Payment Vignet       Customer Job. No.     Oustomert-Og.20       Truget, Typer.     Tuget, Ner.       Hauger, Sparting yo.     Driver's Name	
HOT M	Bu	WEIGHAANTER CERTIFICATE THIS IS TO CERTIFY that the following described commodity was weighed, measured or counted by a weighmanater, whose signature is on this certificate, who is a recognized automy of accuracy, as presented by Chapter J (counservate) with Section (2000 of Disastruers) is of the Cultionnia Basilicas and Professions Code, automissed by the Distort of Measurement Standards of the Cultionnia Department of Food and Agriculture Print Name (Customer) Divers Septature	CEME	IGA     REPRINT ROKET TIME     CHECK IN TIME     7:47:37 an     DATE       SUBPL     Curronds/Mappe Truesh Map     Curronds/Mappe Con     Map Part     Time:       Truesh Map     Vendels of Lussing Plana No.     Trailer or Loanse Plana No.     Trailer or Loanse Plana No.       Truesh Map     Today's Tigging age 4     Load No.     10	
HOT MIX ASPHALT,	Customer's Initials This Ticket's Grand Total		Total Unit Price An 19.04	1:47:57 an     DATE     04/2010       1:47:57 an     TIME LOADED     1:47:57       Map Pat.     Zone     Ordøj       Trailer or Loanse Plate No.     Trailer or Loan       Load No.     1.0     Ourn. Prød, Q	

**Twining, Inc. - San Diego Lab** 15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562 426 6424

		Fax: 562.426.6424
Asphalt	Nuclear Density Report	Report No: ND:W02-21-01547           Date of Issue: 4/22/2021         Issue No: 1
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego, Asphalt Concrete Overlay South San Diego County Roads San Diego, CA,	Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdictior Distribution	ւ: County of San Diego :	Approved Signatory: Andrew Suarez (Branch Manager)

Testing Details				
Tested By:	Jose Franco-Casas	Date Tested:	4/20/2021	
Plant:	Lakeside	Gauge Make/Model:		
Method of Measurement:	Backscatter	Density Standard Count:	36478	
Gauge Serial:		Moisture Standard Count	: 8295	
Calibration Date:		Weather:	Sunny	
Calibration Source:				

Test	t Result	S										ASTM	D 2950
Test No	Road	Station	Offset (ft)	From	Mix	Lift	Layer Thickness (in)	Count Rate	MLD (lb/ft³)	In Situ Density (Ib/ft³)	Comp (%)	Limit (%)	Results
Appro	ox.Test Lo	cation: E	Bonita, Ca.										
1	5035 Corral Canyon Road	NA	10.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	13	3.0	1 min.	146.60	138.70	95	≥95	Ρ
2	4042 Corral Canyon Road	NA	12.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	138.80	95	≥95	Р
3	4030 Corral Canyon Road	NA	12.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	139.80	95	≥95	Р
4	4019 Corral Canyon Road	NA	8.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber		3.0	1 min.	146.60	140.10	96	≥95	Р
5	4002 Corral Canyon Road	NA	12.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber		3.0	1 min.	146.60	139.50	95	≥95	Р
6	3966 Corral Canyon Road	NA	12.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber		3.0	1 min.	146.60	139.10	95	≥95	Р
7	3958 Corral Canyon Road	NA	8.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	139.20	95	≥95	Р

43 Asp		VININ luclear D		Report					15950 Beri San Diego Ph: 858-97 Fax: 562.4	Re	Drive, Suite	н <mark>ND:W02-</mark>	21-01547
Custo Proje	omer: ct:	ATP Enginee 4211 Ponder San Diego, C County of Sa San Diego Co San Diego, C	ering Contrac osa Avenue A, 92123 n Diego, As ounty Roads	ctors (Lehig , Suite C phalt Conc		Date of Issue: 4/22/2021     Issue No:       Project No.: 200638.2     Permit No.:       OSHPD:     DSA File #:       DSA AP #:     DSA AP #:							
	diction: bution:	County of Sa	n Diego						Approved Sid	gnatory: Andrew S	Fuarez (Branch	Manager)	*
	Resu		Offends (ft)	Erom	Mise	1 :64	Lover	Count				ASTM	D 2950
Test No	Road	Station	Offset (ft)	From	Mix	Lift	Layer Thickness (in)	Count Rate	MLD (lb/ft³)	In Situ Density (Ib/ft³)	Comp (%)	Limit (%)	Results
Appro	ox.Test	Location:	Bonita, Ca.						1	1			
8	3934 Corra Canyo Road	n NA	14.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	139.70	95	≥95	Р
9	3918 Corra Canyo Road		10.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	139.10	95	≥95	Р
10	3909 Corra Canyo Road	n NA	12.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	139.50	95	≥95	Р
11	3878 Corra Canyo Road	n NA	10.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	138.70	95	≥95	Р
12	3860 Corra Canyo Road	n NA	12.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	138.60	95	≥95	Р
13	3847 Corra Canyo Road	n NA	12.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	139.10	95	≥95	Р
14	3836 Corra Canyo Road	n NA	10.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	139.30	95	≥95	Р
15	3822 Corra Canyo Road	n NA	12.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	139.30	95	≥95	Р
16	5904 Corra Canyo Road	n NA	8.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	140.60	96	≥95	Р

4sn		VININ Nuclear D		Report					15950 Beri San Diego Ph: 858-97 Fax: 562.4	Re	Drive, Suite	H ND:W02-	21-01547
•	omer: ct:	ATP Enginee 4211 Ponder San Diego, C County of Sa San Diego C San Diego, C	ering Contrac osa Avenue A, 92123 n Diego, As ounty Roads	ctors (Lehig , Suite C phalt Conc		Date of Issue: 4/22/2021 Issue No: Project No.: 200638.2 Permit No.: OSHPD: DSA File #: DSA AP #:							
Juris Distri	diction: ibution:	County of Sa	n Diego						Approved Si	and			•
									Approved Sig	gnatory: Andrew S	Suarez (Branch	Manager)	
Test <sup>Test</sup> No	Road		Offset (ft)	From	Mix	Lift	Layer Thickness (in)	Count Rate	MLD (lb/ft³)	In Situ Density (Ib/ft³)	Comp (%)	ASTM Limit (%)	D 2950 Results
Appro	ox.Test	Location: E	Bonita, Ca.										
17	5903 Corra Canyo Road	n NA	10.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	139.40	95	≥95	Р
18	4019 Corra Canyo Road	n NA	10.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	138.90	95	≥95	Р
19	4003 Corra Canyo Road	n NA	12.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	138.80	95	≥95	Р
20	5801 Corra Canyo Road	n NA	8.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	139.70	95	≥95	Р
21	3949 Corra Canyo Road	n NA	10.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	138.80	95	≥95	Р
22	3933 Corra Canyo Road	I NA	10.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	138.90	95	≥95	Р
23	3917 Corra Canyo Road	NA	12.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	139.20	95	≥95	Р
24	3903 Corra Canyo Road	NA	10.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	138.90	95	≥95	Р
25	5702 Corra Canyo Road	I NA	12.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	141.00	96	≥95	Р

43 Asp		ININ clear D	<b>IG</b> ensity F	Report					15950 Beri San Diego Ph: 858-97 Fax: 562.4	26.6424 <b>Re</b>	Drive, Suite	•H ND:W02-2	21-01547 ssue No: 1
Custo Proje	42 Sa ct: Co Sa	11 Pondero n Diego, C ounty of Sai	n Diego, As ounty Roads	Date of Issue: 4/22/2021     Issue No:       Project No.: 200638.2     Permit No.:       OSHPD:     DSA File #:       DSA AP #:     DSA AP #:									
Juris Distri	diction: Co ibution:	ounty of Sa	n Diego						Approved Sig	gnatory: Andrew S	Guarez (Branc	h Manager)	
<mark>Test</mark> Test No	t <mark>Result</mark> <sub>Road</sub>	S Station	Offset (ft)	From	Mix	Lift	Layer Thickness (in)	Count Rate	MLD (lb/ft³)	In Situ Density (Ib/ft³)	Comp (%)	ASTM Limit (%)	D 2950 Results
Appro	ox.Test Lo	cation: E	Bonita, Ca.				()			(10/10)			
26	3855 Corral Canyon Road	NA	24.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	139.50	95	≥95	Р
27	3839 Corral Canyon Road	NA	25.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	139.10	95	≥95	Р
28	3823 Corral Canyon Road	NA	24.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	138.90	95	≥95	Р
29	3847 Corral Canyon Road	NA	12.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	139.30	95	≥95	Р
30	3831 Corral Canyon Road	NA	8.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	138.90	95	≥95	Р
31	3815 Corral Canyon Road	NA	10.0	Centerline	21212415F 1/2" HMA 58-34M w/fiber	1	3.0	1 min.	146.60	139.20	95	≥95	Р



Project:		San Diego County			South	Date Sampled:	4/20/2021
Material Description:		Combined RAP				Time Sampled:	555am
Material S	ource:		CCA La	akeside		Sampled By:	I. Montano
Sample Location:		Belt Cut				Date Tested:	4/20/2021
Lot #:		Sublot #:		Tons Out:		Tested By:	I. Montano

#### **RECYCLED ASPHALT PRODUCT**

#### MOISTURE CONTENT OF RAP (CTM 370)

Wet Weight:   3205.4   Dry Weight:   3138.9   RAP Moisture:   2.1%
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#### SIEVE ANALYSIS OF POST IGNITION OVEN RAP (CTM 202)

Basket Mass	Mass 2872.5		Basket +	Basket + Sample		8.3	HMA San	nple Mass	156	5.8
Basket + Sample Burned		433	39.9	Burned A	Agg Mass	146	67.4	Approx. O	il % TWM	5.03

Sie	ve Size	Weight Retained (grams)	Percent Retained (%)	Percent Passing (%)	Correction Factor (%)	Corrected Percent Passing
2"	(50mm)	0	0.0%	100.0%	0.0	100.0%
1-1/2"	(37.5mm)	0	0.0%	100.0%	0.0	100.0%
1"	(25mm)	0	0.0%	100.0%	0.0	100.0%
3/4"	(19mm)	0	0.0%	100.0%	0.0	100.0%
1/2"	(12.5mm)	18.8	1.3%	98.7%	+0.2	98.9%
3/8"	(9.5mm)	134.4	9.2%	90.8%	+0.6	91.4%
#4	4.75mm)	394.3	26.9%	73.1%	-0.8	72.3%
#8	(2.36mm)	116	43.3%	56.7%	+0.5	57.2%
#16	(1.18mm)	207.9	56.2%	43.8%	-0.7	43.1%
#30	(600µm)	285.4	67.2%	32.8%	-0.6	32.2%
#50	(300µm)	361.9	78.0%	22.0%	-0.2	21.8%
#100	(150µm)	416.5	85.7%	14.3%	+0.3	14.6%
#200	(75µm)	450.6	90.5%	9.5%	+0.5	10.0%
Mass	of #4 Split	517.5				-

Approved By:

atrick

Patrick Terrell Quality Control Manager II



Project:		San Diego County Overlay South				lay South		Date Sampled:	4/20/2021
Material Desc	cription:	21212415 FIBER 1/2" HMA-A w/25% RAP					RAP	Time Sampled:	600am
Material Sour	rce:	CCA Lakeside						Sampled By:	I. Montano
Sample Loca	ation:	Belt Cut						Date Tested:	4/20/2021
Tons Out:		Load #		Lot #		Sublot #		Tested By:	I. Montano

#### **SIEVE ANALYSIS** (CTM 202)

						Aggregate %	RAP %
Wet Weight:	7568.3	Dry Weight:	7460.2	% Moisture:	1.45%	75%	25%

									Specific	ation
Sie	ve Size	Weight Retained	Percent Retained		x Agg %	RAP Pass	x RAP %	Total Percent Passing	Allowa Tolera	
2"	(50mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1-1/2"	(37.5mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1"	(25mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
3/4"	(19mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	100	
1/2"	(12.5mm)	608.7	8.2%	91.8%	68.9%	98.9%	24.7%	94%	96 90	0-100
3/8"	(9.5mm)	1841.1	24.7%	75.3%	56.5%	91.4%	22.9%	79%	77 71	1-83
#4	(4.75mm)	3645.4	48.9%	51.1%	38.4%	72.3%	18.1%	56%	55 48	8-62

Fine Agg Dry Weight:

508.7

										Spe	cification
Sieve Size		Weight Retained	Percent Retained	Agg Pass	x #4	x Agg %	RAP Pass	x RAP %	Total Percent Passing		owable lerance
#8	(2.36mm)	98.1	19%	81%	41%	31.0%	57.2%	14.3%	45%	43	38-48
#16	(1.18mm)	188	37%	63%	32%	24.2%	43.1%	10.8%	35%	33	
#30	(600µm)	296	58%	42%	21%	16.0%	32.2%	8.0%	24%	22	17-25
#50	(300µm)	398.1	78%	22%	11%	8.3%	21.8%	5.4%	14%	13	
#100	(150µm)	449.0	88%	12%	6%	4.5%	14.6%	3.6%	8%	7	
#200	(75µm)	471.8	92.7%	7.3%	3.7%	2.8%	10.0%	2.5%	5.3%	4.4	2.4-6.4

### SAND EQUIVALENT (CTM 217)

Specimen Number	Sand Reading	Clay Reading	Sand Equivalent	
1	4.2	6.6	64	Specification
2	4.1	6.6	63	47
3	4.1	6.5	63	47
		Average	63	

Approved by:

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enell atrick,

Patrick Terrell Quality Control Manager II



Project:	San Diego County Overlay South			Date Sampled:	4/20/2021			
Mix Type:	21212415 FIBER			Time Sampled:	721am Load #: 6			
Material Source:	CCA Lak	eside		Sampled By:	I. Montano			
Sample Location:	Truck Bed at Plant			Date Tested:	4/20/2021			
Ticket #:	1701254454	254454 Tons Out: 114.24		Tested By:	I. Montano			

Calibration Information:						
Ignition Oven Identification:	Thermolyne NCAT Serial #: 0151796801150209					
Set Point Temperature from Calibration:	☑ 538°C □ 482°C □ 427°C					
Total ignition time from calibration (minutes):	46 - 56 minutes					
Asphalt Binder type and source:	PG 58-16 San Joaquin					
Aggregate Source:	Hanson Aggregates, Vigilante Mine					
Correction Factor, CF (%):	0.45%					

Ignitior	Ignition Oven Procedure						
Mass of Basket, M <sub>e</sub> (g):	287	73.1					
Mass of Mixed Sample + Basket, M <sub>1</sub> (g):	438	37.0					
Net Mass of of the Mixed Sample, $M_1$ - $M_{e_i}$ , $M_i$ (g):	151	13.9					
Mass of Sample + Basket after burn off, M <sub>2</sub> (g):	429	98.5					
Final Mass of Sample Aggregate, $M_2$ - $M_e$ , $M_f$ (g)	142	25.4					
Raw Aspahlt Content, A = ( $(M_i - M_f) \div M_i$ ) x 100 (%):	5.8	5%					
Corrected Asphalt Content AC = A - CF - MC (%):	5.40%	5.70%					
	% by Total Weight of Mix	% by Dry Weight of Agg					

Mix Moisture, MC	0		
Target by TWM:	5.39%	Allowable Range	5.09 - 5.89
Target by DWA:	5.70%	Allowable Range	5.36 - 6.26

Approved By: Saturck Venell

Form: CCA-T308 Rev. 1.1 9/29/2017



Project:		San Diego County Overlay South				Date Sampled:	4/20/2021		
Material Desc	cription:	212124	212415 FIBER 1/2" HMA-A w/25% RAP			RAP	Time Sampled:	945am	
Material Sour	rce:	CCA Lakeside				Sampled By:	I. Montano		
Sample Loca	ation:	Belt Cut				Date Tested:	4/20/2021		
Tons Out:		Load #		Lot #		Sublot #		Tested By:	I. Montano

#### SIEVE ANALYSIS (CTM 202)

						Aggregate %	RAP %
Wet Weight:	6408.7	Dry Weight:	6310.7	% Moisture:	1.55%	75%	25%

									Specification
Sie	ve Size	Weight Retained	Percent Retained		x Agg %	RAP Pass	x RAP %	Total Percent Passing	Allowable Tolerance
2"	(50mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	
1-1/2"	(37.5mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	
1"	(25mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	
3/4"	(19mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	100
1/2"	(12.5mm)	489.6	7.8%	92.2%	69.2%	98.9%	24.7%	94%	96 90-100
3/8"	(9.5mm)	1472.4	23.3%	76.7%	57.5%	91.4%	22.9%	80%	77 71-83
#4	(4.75mm)	3134.3	49.7%	50.3%	37.8%	72.3%	18.1%	56%	55 48-62

Fine Agg Dry Weight:

517.4

										Spe	cification
Si	eve Size	Weight Retained	Percent Retained	Agg Pass	x #4	x Agg %	RAP Pass	x RAP %	Total Percent Passing		lowable lerance
#8	(2.36mm)	116.8	23%	77%	39%	29.2%	57.2%	14.3%	44%	43	38-48
#16	(1.18mm)	210.3	41%	59%	30%	22.4%	43.1%	10.8%	33%	33	
#30	(600µm)	307.7	59%	41%	20%	15.3%	32.2%	8.0%	23%	22	17-25
#50	(300µm)	413.7	80%	20%	10%	7.6%	21.8%	5.4%	13%	13	
#100	(150µm)	454.0	88%	12%	6%	4.6%	14.6%	3.6%	8%	7	
#200	(75µm)	478.5	92.5%	7.5%	3.8%	2.8%	10.0%	2.5%	5.3%	4.4	2.4-6.4

### SAND EQUIVALENT (CTM 217)

Specimen Number	Sand Reading	Clay Reading	Sand Equivalent	
1	4.3	6.9	63	Specification
2	4.1	6.5	64	47
3	4.0	6.4	63	47
		Average	63	

Approved by:

enell atrick,

Patrick Terrell Quality Control Manager II



Project:	San Diego County Overlay South			Date Sampled:	4/20/2021			
Mix Type:	21212415 FIBER			Time Sampled:	1011am Load #: 40			
Material Source:	CCA Lak	eside		Sampled By:	I. Montano			
Sample Location:	Truck Bed at Plant			Date Tested:	4/20/2021			
Ticket #:	1701254507	1701254507 Tons Out: 767.84		Tested By:	I. Montano			

Calibration Information:						
Ignition Oven Identification:	Thermolyne NCAT Serial #: 0151796801150209					
Set Point Temperature from Calibration:	⊠ 538°C □ 482°C □ 427°C					
Total ignition time from calibration (minutes):	46 - 56 minutes					
Asphalt Binder type and source:	PG 58-16 San Joaquin					
Aggregate Source:	Hanson Aggregates, Vigilante Mine					
Correction Factor, CF (%):	0.45%					

Ignitior	n Oven Procedure	
Mass of Basket, M <sub>e</sub> (g):	28	80.1
Mass of Mixed Sample + Basket, M <sub>1</sub> (g):	44	13.7
Net Mass of of the Mixed Sample, $M_1$ - $M_{e_1}$ , $M_i$ (g):	15	33.6
Mass of Sample + Basket after burn off, M <sub>2</sub> (g):	43	24.8
Final Mass of Sample Aggregate, $M_2$ - $M_e$ , $M_f$ (g)	14	44.7
Raw Aspahlt Content, A = ( $(M_i - M_f) \div M_i$ ) x 100 (%):	5.	80%
Corrected Asphalt Content AC = A - CF - MC (%):	5.35%	5.65%
	% by Total Weight of Mix	% by Dry Weight of Agg

Mix Moisture, MC	0		
Target by TWM:	5.39%	Allowable Range	5.09 - 5.89
Target by DWA:	5.70%	Allowable Range	5.36 - 6.26

Form: CCA-T308 9/29/2017 Rev. 1.1

Approved By: Natrick, enell



Project:		San Diego County Overlay South				lay South		Date Sampled:	4/20/2021
Material Des	scription:	21212415 FIBER 1/2" HMA-A w/25% RAP			RAP	Time Sampled:	1200pm		
Material Sou	irce:	CCA Lakeside				Sampled By:	I. Montano		
Sample Loca	ation:	Belt Cut				Date Tested:	4/20/2021		
Tons Out:		Load #		Lot #		Sublot #		Tested By:	I. Montano

#### **SIEVE ANALYSIS** (CTM 202)

						Aggregate %	RAP %
Wet Weight:	6767.9	Dry Weight:	6662.9	% Moisture:	1.58%	75%	25%

									Spec	ification
Sie	ve Size	Weight Retained	Percent Retained		x Agg %	RAP Pass	x RAP %	Total Percent Passing		owable erance
2"	(50mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1-1/2"	(37.5mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1"	(25mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
3/4"	(19mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	100	
1/2"	(12.5mm)	449.8	6.8%	93.2%	69.9%	98.9%	24.7%	95%	96	90-100
3/8"	(9.5mm)	1672.3	25.1%	74.9%	56.2%	91.4%	22.9%	79%	77	71-83
#4	(4.75mm)	3315.6	49.8%	50.2%	37.7%	72.3%	18.1%	56%	55	48-62

Fine Agg Dry Weight:

501.4

										Spe	cification
Si	eve Size	Weight Retained	Percent Retained	Agg Pass	x #4	x Agg %	RAP Pass	x RAP %	Total Percent Passing		owable lerance
#8	(2.36mm)	112.3	22%	78%	39%	29.2%	57.2%	14.3%	44%	43	38-48
#16	(1.18mm)	217.8	43%	57%	28%	21.3%	43.1%	10.8%	32%	33	
#30	(600µm)	315	63%	37%	19%	14.0%	32.2%	8.0%	22%	22	17-25
#50	(300µm)	400.2	80%	20%	10%	7.6%	21.8%	5.4%	13%	13	
#100	(150µm)	452.4	90%	10%	5%	3.7%	14.6%	3.6%	7%	7	
#200	(75µm)	467.4	93.2%	6.8%	3.4%	2.6%	10.0%	2.5%	5.0%	4.4	2.4-6.4

### SAND EQUIVALENT (CTM 217)

Specimen Number	Sand Reading	Clay Reading	Sand Equivalent	
1	4.1	6.4	64	Specification
2	4.2	6.5	65	47
3	4.2	6.5	65	47
		Average	65	

Approved by:

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enell atrick,

Patrick Terrell Quality Control Manager II



Project:	San Diego County Overlay South			Date Sampled:	4/20/2021		
Mix Type:	21212415 FIBER 1/2" HMA-A w/25% RAP			Time Sampled:	115pm Load #: 8		
Material Source:	CCA Lakeside			Sampled By:	I. Montano		
Sample Location:	Truck Bed at Plant			Date Tested:	4/20/2021		
Ticket #:	1701254565 Tons Out: 1538.4		Tested By:	I. Montano			

Calibration Information:								
Ignition Oven Identification:	Thermolyne NCAT Serial #: 0151796801150209							
Set Point Temperature from Calibration:	⊠ 538°C □ 482°C □ 427°C							
Total ignition time from calibration (minutes):	46 - 56 minutes							
Asphalt Binder type and source:	PG 58-16 San Joaquin							
Aggregate Source:	Hanson Aggregates, Vigilante Mine							
Correction Factor, CF (%):	0.45%							

Ignition Oven Procedure							
Mass of Basket, M <sub>e</sub> (g):	287	72.1					
Mass of Mixed Sample + Basket, M <sub>1</sub> (g):	435	96.8					
Net Mass of of the Mixed Sample, $M_1$ - $M_{e_1}$ , $M_i$ (g):	152	1524.7					
Mass of Sample + Basket after burn off, M <sub>2</sub> (g):	430	4309.2					
Final Mass of Sample Aggregate, $M_2$ - $M_e$ , $M_f$ (g)	143	37.1					
Raw Aspahlt Content, A = ( $(M_i - M_f) \div M_i$ ) x 100 (%):	5.7	75%					
Corrected Asphalt Content AC = A - CF - MC (%):	5.30%	5.59%					
	% by Total Weight of Mix	% by Dry Weight of Agg					

Mix Moisture, MC	0		
Target by TWM:	5.39%	Allowable Range	5.09 - 5.89
Target by DWA:	5.70%	Allowable Range	5.36 - 6.26

Form: CCA-T308 Rev. 1.1 9/29/2017

Approved By: Natrick, enell



# HMA Physical Properties Worksheet

Client ATP Engineering Contractors
Project SD County Overlay South

Sample Location/ID 1/2" HMA 58-34 w/ fiber

Job No. 200638.2

Lab No. W05-21-00892

Sampled by Jose Date Sampled 4/20/2021

Tested By BB

Date Tested 4/24/2021

CT 309 Maximum Theoretical Gravity					
Sample Weight	1657.8				
Pyncnometer + H <sub>2</sub> O	7356.4				
Sample+Pyncnometer+H <sub>2</sub> O	8337.9				
Temperature H <sub>2</sub> O	25.0				
Maximum Specific Gravity	2.451				

Lab Test	m Density				
Briquette ID	1	2	3		
Thickness	2.50	2.50	2.52		
Weight in Air	1197.5	1200.7	1197.9		
Paraffin Coated Wt	in Coated Wt 1206.0 1209.9				
Weight in Water	ght in Water 688.9 690.5				
Vol. cc	507.7	509.2	509.3		
Sp. Gr.	2.359	2.358	2.352		
PCF	146.8	146.8	146.4		
Spec	2.356				
Weight pe	146.7				
	Air Voids (a	verage), %	3.9		

CT 366 Stability							
2000	3000	4000	5000lbs (R)	6000	Turn Dial (T)	Stability	
18	26	32	41.0	50	2.73	42	
19	27	36	45.0	54	2.68	40	
18	26	33	42.0	52	2.70	41	
Average Stability						41	

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Twining, Inc. - San Diego Lab

15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424

Daily Field Report					Report No: DFR:V Date of Issue: 04/14/2021	
Customer:		ngineering Contractors Ponderosa Avenue, Suite			Project No: 200733.2 Permit No:	
		iego, CA 92123			OSHPD:	
Project:		/ of San Diego - Road N	laintenance Proiect AC	Overlav. North Cen		
,	-	iego County Roads		,,	DSA AP #:	
		iego, CA				
Distribution:		-			. 1	
	Count				ant	
Jurisdiction:	County	/ of San Diego			Approved Signatory: Andre	w Suarez
Test Date:		Monday, April 12, 20	21	Inspector:	James Packer	
Inspection N	o.:					
Contractor:		ATP				
Equipment O	bsv.:	CAT PS150C pneum Dynapac CC4200 VI CAT AP1055F aspha	pneumatic roller			
Time Arrived	:	7:00 AM	Time Departed:	3:30 PM	Time on Site:	8 Hrs
Lunch Start:		11:00 AM	Lunch End:	11:30 AM	Travel Time:	2 Hrs
Mileage:			Weather:	Clear		
Types of Te	sting /	Observations				
Asphalt - Fie	eld Dens	sity Testing				
Referenced	Docun	nents				
Twining Quali	ty Contr	ol Plan for HMA Const	ruction, prepared by T	wining, Inc. for AT	P General Engineering, date	d August 8, 2020.
Observation	ns / Re	marks				
April 12, 2021 Twining Proje Twining Inspe Contractor: A <sup>T</sup> Materials Sup Total PMAC ( Total PMAC w	ct No. 2 ctor: Ja TP plier: C( 1/2"):	mes Packer CA (Lakeside) 600 tons	n Diego - Road Mainte	enance Project AC	Overlay, North Central	
Diego County the representa of PMAC w/fit	, Califor ative for per on C	nia. Once at the site, I San Diego County, Ja amino Del Norte in Ra	discussed the anticipa icob. This day's work in ncho Bernardo, CA.	ated operations for hvolved the placen	at the project site on Caminc r the day with the Contractor' nent of a 3-inch inlay of PMA	's foreman, Sal, and \C and a 3-inch inlay
PMAC bore th	ne follow gn desc	ring design description ription: 1/2" HMA 58-3	: 1/2" HMA Type A 58-	34M and a mix ID	), sourced from their Lakesid of 21212415. The 1/2" PMA ATP placed a total of 600 ton	C w/ fiber bore the
Prior to placin	g the A	C material, the road wa	as swept free of loose	debris and a tack of	coating was applied.	

I performed in-place, nuclear gauge density tests on the AC material (approx. 3-4 tests per 250 tons). The test data indicate compaction levels compliant with project specification



Twining, Inc. - San Diego Lab

15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424

Daily F	ield Report	Report No: DFR:W02-21-01424-O1           Date of Issue: 04/14/2021         Issue No: 1
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA 92123 County of San Diego - Road Maintenance Project AC Overlay, North Central San Diego County Roads San Diego, CA	Project No: 200733.2 Permit No: OSHPD: DSA File #: DSA AP #:
Distribution: Jurisdiction:	County of San Diego	Approved Signatory: Andrew Suarez
Observation	ns / Remarks (continued)	

requirements.

The temperature of the asphalt was monitored at the time of placement, during break down and after final compaction by the finish roller. During each stage of the asphalt work, the AC temperature measured within the appropriate range

Samples of the 1/2" PMAC were obtained on-site, at approximately 10:25 am and 152 tons. The samples were designated performance samples. The County representative, Jacob, took custody of two sample sets (8 boxes), and I delivered one set (4 boxes) to Twining's lab located at its San Diego office.

\*\*\*\*\*\*Regular: 8.0 OT: DT:\_\_\_\_ Reason for Travel: transporting nuclear gauge Miles to Jobsite: Miles from Jobsite: Travel to Jobsite (start): 7:00am Travel to Jobsite (end): 8:00am Travel from Jobsite (start): 3:30pm Travel from Jobsite (end): 4:30pm Expenses:\_\_\_\_\_ Equipment Used: \_\_\_\_\_\_\*\*\*\*\*

#### ASPHALT - FIELD DENSITY TESTING

Picked up the density gauge from (office). Met with (jobsite contact) on the job site and went over the job requirements for the day. First asphalt truck arrived at (time), the compaction started at (time). Tack coat (was/was not) applied before placing the HMA. The mix temperature was (temp) F upon arrival. Contractor placed (number of tons) tons of asphalt in (number of lifts) lift. Paving finished at (time) and compaction work completed at (time). Collected (number of samples) sample and delivered it to (office) lab at (time). Samples information is as follows:

Sample 1: At ----- (time) from load number ---- at ----- tons

Sample 2: At ----- (time) from load number ---- at ----- tons

Sample 3: At ----- (time) from load number ---- at ----- tons

All inspections based on minimum of 4 hours and over 4 hours - 8 hours minimum. If inspector is called to a project and no work is performed, a 2 hour minimum charge will be applied.

#### Remarks:

This report will be distributed to architect, engineer, client, and governing jurisdiction (e.g. DSA) as required by applicable codes and project documents.

Certificate of Compliance		
The Work 🗹 Was 🗌 Was Not	The Work Inspected 🗸 Met 🗌 Did Not Meet	The Material Sampling 🗹 Was 🗌 Was Not
inspected in accordance with the requirements of	the requirements of the County of San Diego approved documents	performed in accordance with the requirements of the County of
the County of San Diego approved documents		San Diego approved documents
All Reports Remain The Property of Twining, Inc. Authorization For The	Publication Of Our Reports, Conclusions, Or Extracts From Or Regarding Them is Reserved P	ending Our Written Approval As A Mutual Protection To Clients, The Public and Ourselves



**Twining, Inc. - San Diego Lab** 15950 Bernardo Center Drive, Suite H San Diego, CA 92127 Ph: 858-974-3750 Fax: 562.426.6424

Asphalt	Nuclear Density Report	Report No: ND:W02-21-01424           Date of Issue: 4/14/2021         Issue No: 1
Customer: Project:	ATP Engineering Contractors (Lehigh Hanson) 4211 Ponderosa Avenue, Suite C San Diego, CA, 92123 County of San Diego - Road Maintenance Project AC Overlay, North San Diego County Roads San Diego, CA,	Project No.: 200733.2 Permit No.: OSHPD: DSA File #: DSA AP #:
Jurisdictior Distributior	ו: County of San Diego ו:	Approved Signatory: Andrew Suarez (Branch Manager)

Testing Details			
Tested By:	James Packer	Date Tested:	4/12/2021
Plant:	Lakeside	Gauge Make/Model:	
Method of Measurement:	Backscatter	Density Standard Count:	31505
Gauge Serial:		Moisture Standard Count:	9457
Calibration Date:		Weather:	Clear
Calibration Source:			

Test R	Results						ASTM	D 2950
Test No	Road	Mix	Layer Thickness (in)	MLD (lb/ft³)	In Situ Density (Ib/ft³)	Comp (%)	Limit (%)	Results
Approx.	Test Location: County of Sa	n Diego						
1	Camino Del Norte	1/2" HMA Type A 58-34M	3.0	145.90	141.20	97	≥95	Р
2	Camino Del Norte	1/2" HMA Type A 58-34M	3.0	145.90	140.00	96	≥95	Р
3	Camino Del Norte	1/2" HMA Type A 58-34M	3.0	145.90	141.10	97	≥95	Р
4	Camino Del Norte	1/2" HMA Type A 58-34M	3.0	145.90	139.90	96	≥95	Р
5	Camino Del Norte	1/2" HMA Type A 58-34M	3.0	145.90	141.00	97	≥95	Р
6	Camino Del Norte	1/2" HMA Type A 58-34M	3.0	145.90	138.80	95	≥95	Р
7	Camino Del Norte	1/2" HMA Type A 58-34M	3.0	145.90	141.20	97	≥95	Р
8	Camino Del Norte	1/2" HMA Type A 58-34M w/fiber	3.0	144.70	138.00	95	≥95	Р
9	Camino Del Norte	1/2" HMA Type A 58-34M w/fiber	3.0	144.70	139.50	96	≥95	Р
10	Camino Del Norte	1/2" HMA Type A 58-34M w/fiber	3.0	144.70	139.70	97	≥95	Р
11	Camino Del Norte	1/2" HMA Type A 58-34M w/fiber	3.0	144.70	140.20	97	≥95	Р
12	Camino Del Norte	1/2" HMA Type A 58-34M w/fiber	3.0	144.70	139.70	97	≥95	Р
13	Camino Del Norte	1/2" HMA Type A 58-34M w/fiber	3.0	144.70	138.50	96	≥95	Р
14	Camino Del Norte	1/2" HMA Type A 58-34M w/fiber	3.0	144.70	140.10	97	≥95	Р
15	Camino Del Norte	1/2" HMA Type A 58-34M w/fiber	3.0	144.70	137.90	95	≥95	Р



# HMA Physical Properties Worksheet

Client <u>ATP Engineering Contractors</u> Project <u>SD County Overlay North</u>

Sample Location/ID 1/2" HMA

Job No. 200733.2

Lab No. W05-21-00800

Sampled by <mark>JP</mark>

Date Sampled 4/12/2021

Tested By BB

Date Tested 4/14/2021

CT 309 Maximum Theoretical Gravity					
Sample Weight	1601.6				
Pyncnometer + H <sub>2</sub> O	7356.4				
Sample+Pyncnometer+H <sub>2</sub> O	8303.1				
Temperature H <sub>2</sub> O	25.0				
Maximum Specific Gravity	2.446				

Lab Tested Maximum Density					
Briquette ID	1	2	3		
Thickness	2.51	2.55	2.55		
Weight in Air	1194.3	1206.3	1204.2		
Paraffin Coated Wt	1217.6	1227.1	1225.6		
Weight in Water	681.4	689.3	686.0		
Vol. cc	510.3	514.7	515.8		
Sp. Gr.	Sp. Gr. 2.340 2.3				
PCF	145.3				
Spec	2.340				
Weight pe	145.6				
	Air Voids (a	verage), %	4.3		

CT 366 Stability							
2000	3000	4000	5000lbs (R)	6000	Turn Dial (T)	Stability	
17	25	32	40.0	48	2.67	43	
16	24	31	39.0	46	2.63	44	
17	26	33	42.0	51	2.66	42	
Average Stability						43	

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Project: San Diego County Overlay North		Date Sampled:	4/12/2021			
Material Description: Combined RAP		Time Sampled:	600am			
Material Source:	ource: CCA Lakeside		Sampled By:	I. Montano		
Sample Location:		Belt	Belt Cut		Date Tested:	4/12/2021
Lot #:	Sublot #:		Tons Out:		Tested By:	I. Montano

#### **RECYCLED ASPHALT PRODUCT**

#### MOISTURE CONTENT OF RAP (CTM 370)

Wet Weight: 3150.8 Dry Weight:	3074.4	RAP Moisture:	2.5%
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### SIEVE ANALYSIS OF POST IGNITION OVEN RAP (CTM 202)

Basket Mass	287	72.1	Basket + Sample		438	8.3	HMA San	nple Mass	151	6.2
Basket + Sample	Burned	428	6.1	Burned A	Agg Mass	141	4.0	Approx. O	il % TWM	5.39

Sie	ve Size	Weight Retained (grams)	Percent Retained (%)	Percent Passing (%)	Correction Factor (%)	Corrected Percent Passing
2"	(50mm)	0	0.0%	100.0%	0.0	100.0%
1-1/2"	(37.5mm)	0	0.0%	100.0%	0.0	100.0%
1"	(25mm)	0	0.0%	100.0%	0.0	100.0%
3/4"	(19mm)	0	0.0%	100.0%	0.0	100.0%
1/2"	(12.5mm)	17.8	1.3%	98.7%	+0.2	98.9%
3/8"	(9.5mm)	91.5	6.5%	93.5%	+0.6	94.1%
#4	4.75mm)	361.1	25.5%	74.5%	-0.8	73.7%
#8	(2.36mm)	119.6	42.7%	57.3%	+0.5	57.8%
#16	(1.18mm)	210.3	55.7%	44.3%	-0.7	43.6%
#30	(600µm)	285.4	66.5%	33.5%	-0.6	32.9%
#50	(300µm)	360.3	77.2%	22.8%	-0.2	22.6%
#100	(150µm)	415.3	85.1%	14.9%	+0.3	15.2%
#200	(75µm)	449.8	90.1%	9.9%	+0.5	10.4%
Mass	Mass of #4 Split 518.9					

Approved By:

atuck ene

Patrick Terrell Quality Control Manager II



Project:		San Diego County Overlay North				rlay North		Date Sampled:	4/12/2021
Material De	scription:	21212415 FIBER 1/2" HMA-A w/25% RAP				A-A w/25%	RAP	Time Sampled:	605am
Material So	urce:	CCA Lakeside				Sampled By:	I. Montano		
Sample Loo	ple Location: Belt Cut				Date Tested:	4/12/2021			
Tons Out:		Load #		Lot #		Sublot #		Tested By:	I. Montano

#### SIEVE ANALYSIS (CTM 202)

						Aggregate %	RAP %
Wet Weight:	4442.1	Dry Weight:	4377.5	% Moisture:	1.48%	75%	25%

									Speci	fication
Sie	ve Size	Weight Retained	Percent Retained		x Agg %	RAP Pass	x RAP %	Total Percent Passing		wable rance
2"	(50mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1-1/2"	(37.5mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1"	(25mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
3/4"	(19mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	100	
1/2"	(12.5mm)	377.2	8.6%	91.4%	68.5%	98.9%	24.7%	93%	96	90-100
3/8"	(9.5mm)	1219.6	27.9%	72.1%	54.1%	94.1%	23.5%	78%	77	71-83
#4	(4.75mm)	2289.4	52.3%	47.7%	35.8%	73.7%	18.4%	54%	55	48-62

Fine Agg Dry Weight:

522.6

										Spe	cification
Si	eve Size	Weight Retained	Percent Retained	Agg Pass	x #4	x Agg %	RAP Pass	x RAP %	Total Percent Passing		lowable lerance
#8	(2.36mm)	122	23%	77%	37%	27.4%	57.8%	14.4%	42%	43	38-48
#16	(1.18mm)	222.2	43%	57%	27%	20.6%	43.6%	10.9%	31%	33	
#30	(600µm)	332.1	64%	36%	17%	13.0%	32.9%	8.2%	21%	22	17-25
#50	(300µm)	427	82%	18%	9%	6.5%	22.6%	5.6%	12%	13	
#100	(150µm)	471.7	90%	10%	5%	3.5%	15.2%	3.8%	7%	7	
#200	(75µm)	489.7	93.7%	6.3%	3.0%	2.3%	10.4%	2.6%	4.9%	4.4	2.4-6.4

#### SAND EQUIVALENT (CTM 217)

Approved by:

atrick enel

Patrick Terrell Quality Control Manager II

Specimen Number	Sand Reading	Clay Reading	Sand Equivalent	
1	4.3	6.8	64	Specification
2	4.2	6.5	65	47
3	4.1	6.4	64	47
		Average	64	



Project:	San Diego County	San Diego County Overlay North			4/12/2021		
Міх Туре:	21212415 FIBER			Time Sampled:	926am	Load #:	8
Material Source:	CCA Lakeside			Sampled By:	I. Montano		
Sample Location:	Truck Bed at Plant			Date Tested:	4/12/2021		
Ticket #:	1701254012 Tons Out: 153.81		Tested By:	I. Montano			

Calibration Information:							
tion Oven Identification: Thermolyne NCAT Serial #: 0151796801150209							
Set Point Temperature from Calibration:	☑ 538°C □ 482°C □ 427°C						
Total ignition time from calibration (minutes):	46 - 56 minutes						
Asphalt Binder type and source:	PG 58-16 San Joaquin						
Aggregate Source:	Hanson Aggregates, Vigilante Mine						
Correction Factor, CF (%):	0.45%						

Ignition	Oven	Procedure
----------	------	-----------

	% by Total Weight of Mix	% by Dry Weight of Agg				
Corrected Asphalt Content AC = A - CF - MC (%):	5.62%	5.96%				
Raw Aspahlt Content, A = ( $(M_i - M_f) \div M_i$ ) x 100 (%):	6.0	6.07%				
Final Mass of Sample Aggregate, $M_2$ - $M_e$ , $M_f$ (g)	14	1414.8				
Mass of Sample + Basket after burn off, $M_2$ (g):	429	4295.1				
Net Mass of of the Mixed Sample, $M_1$ - $M_{e_i}$ , $M_i$ (g):	150	1506.3				
Mass of Mixed Sample + Basket, M <sub>1</sub> (g):	438	36.6				
Mass of Basket, M <sub>e</sub> (g):	288	2880.3				

	U		
Target by TWM:	5.39%	Allowable Range	5.09 - 5.89
Target by DWA:	5.70%	Allowable Range	5.36 - 6.26

Form:	CCA-T308
Rev. 1.1	9/29/2017

Approved By: Saturk ener



Project:	San Diego County Overlay North			lorth	Date Sampled:	4/12/2021
Material Description:		Combin	ed RAP		Time Sampled:	605am
Material Source:	CCA Lakeside				Sampled By:	I. Montano
Sample Location:	Belt Cut				Date Tested:	4/12/2021
Lot #:	Sublot #:		Tons Out:		Tested By:	I. Montano

#### **RECYCLED ASPHALT PRODUCT**

#### MOISTURE CONTENT OF RAP (CTM 370)

Wet Weight: 3150.8 Dry Weight:	3074.4	RAP Moisture:	2.5%
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### SIEVE ANALYSIS OF POST IGNITION OVEN RAP (CTM 202)

Basket Mass	287	72.1	Basket +	- Sample	4388.3		HMA Sample Mass		1516.2	
Basket + Sample	Burned	428	6.1	Burned A	Agg Mass	1414.0		Approx. O	il % TWM	5.39

Siev	ve Size	Weight Retained (grams)	Percent Retained (%)	Percent Passing (%)	Correction Factor (%)	Corrected Percent Passing
2"	(50mm)	0	0.0%	100.0%	0.0	100.0%
1-1/2"	(37.5mm)	0	0.0%	100.0%	0.0	100.0%
1"	(25mm)	0	0.0%	100.0%	0.0	100.0%
3/4"	(19mm)	0	0.0%	100.0%	0.0	100.0%
1/2"	(12.5mm)	17.8	1.3%	98.7%	+0.2	98.9%
3/8"	(9.5mm)	91.5	6.5%	93.5%	+0.6	94.1%
#4	4.75mm)	361.1	25.5%	74.5%	-0.8	73.7%
#8	(2.36mm)	119.6	42.7%	57.3%	+0.5	57.8%
#16	(1.18mm)	210.3	55.7%	44.3%	-0.7	43.6%
#30	(600µm)	285.4	66.5%	33.5%	-0.6	32.9%
#50	(300µm)	360.3	77.2%	22.8%	-0.2	22.6%
#100	(150µm)	415.3	85.1%	14.9%	+0.3	15.2%
#200	(75µm)	449.8	90.1%	9.9%	+0.5	10.4%
Mass	of #4 Split	518.9				

Approved By:

atrick

Patrick Terrell Quality Control Manager II



Project:		S	an Die	go Coun	ity Ove	rlay North		Date Sampled:	4/12/2021
Material De	scription:	212	12415	1/2" H	IMA-A	w/25% RA	νP	Time Sampled:	1100am
Material Sou	urce:	CCA Lakeside				9		Sampled By:	I. Montano
Sample Loc	ation:	Belt Cut				Date Tested:	4/12/2021		
Tons Out:		Load #		Lot #		Sublot #		Tested By:	I. Montano

#### SIEVE ANALYSIS (CTM 202)

						Aggregate %	RAP %
Wet Weight:	5878.9	Dry Weight:	5785.4	% Moisture:	1.62%	75%	25%

									Specification	
Sie	ve Size	Weight Retained	Percent Retained		x Agg %	RAP Pass	x RAP %	Total Percent Passing	Allowable Tolerance	
2"	(50mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1-1/2"	(37.5mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
1"	(25mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%		
3/4"	(19mm)	0	0.0%	100.0%	75.0%	100.0%	25.0%	100%	100	
1/2"	(12.5mm)	407.5	7.0%	93.0%	69.7%	98.9%	24.7%	94%	96	90-100
3/8"	(9.5mm)	1531.6	26.5%	73.5%	55.1%	94.1%	23.5%	79%	77	71-83
#4	(4.75mm)	2895.7	50.1%	49.9%	37.5%	73.7%	18.4%	56%	55	48-62

Fine Agg Dry Weight:

519.9

										Spe	cification
S	ieve Size	Weight Retained	Percent Retained	Agg Pass	x #4	x Agg %	RAP Pass	x RAP %	Total Percent Passing	Allowable Tolerance	
#8	(2.36mm)	123	24%	76%	38%	28.6%	57.8%	14.4%	43%	43	38-48
#16	(1.18mm)	228.4	44%	56%	28%	21.0%	43.6%	10.9%	32%	33	
#30	(600µm)	324.1	62%	38%	19%	14.1%	32.9%	8.2%	22%	22	17-25
#50	(300µm)	419.3	81%	19%	10%	7.2%	22.6%	5.6%	13%	13	
#100	(150µm)	466.3	90%	10%	5%	3.9%	15.2%	3.8%	8%	7	
#200	(75µm)	487.5	93.8%	6.2%	3.1%	2.3%	10.4%	2.6%	4.9%	4.4	2.4-6.4

### SAND EQUIVALENT (CTM 217)

Specimen Number	Sand Reading	Clay Reading	Sand Equivalent	
1	4.1	6.6	63	Specification
2	4.2	6.8	62	47
3	4.2	6.8 62		47
		Average	62	

Approved by:

atrick enel

Patrick Terrell Quality Control Manager II



Project:	San Diego County	Overlay Nor	rth	Date Sampled:	4/12/2021			
Міх Туре:	21212415 1/2" HM	A-A w/25%	RAP	Time Sampled:	1127am	Load #:	4	
Material Source:	CCA Lak	eside		Sampled By:	I. Montano			
Sample Location:	Truck Bed at Plant			Date Tested:	4/12/2021			
Ticket #:	1701254042 Tons Out: 77.4		Tested By:	I. Montano				

Calibration Information:							
Ignition Oven Identification:	Thermolyne NCAT Serial #: 0151796801150209						
Set Point Temperature from Calibration:	⊠ 538°C □ 482°C □ 427°C						
Total ignition time from calibration (minutes):	46 - 56 minutes						
Asphalt Binder type and source:	PG 58-34 Holly						
Aggregate Source:	Hanson Aggregates, Vigilante Mine						
Correction Factor, CF (%):	0.45%						

Mass of Basket, M <sub>e</sub> (g):	28	72.0				
Mass of Mixed Sample + Basket, M <sub>1</sub> (g):	44(	02.2				
Net Mass of of the Mixed Sample, $M_1$ - $M_{e_i}$ , $M_i$ (g):	15	30.2				
Mass of Sample + Basket after burn off, M <sub>2</sub> (g):	43	4314.7				
Final Mass of Sample Aggregate, $M_2$ - $M_e$ , $M_f$ (g)	144	1442.7				
Raw Aspahlt Content, A = ( $(M_i - M_f) \div M_i$ ) x 100 (%):	5.7	5.72%				
Corrected Asphalt Content AC = A - CF - MC (%):	5.27%	5.56%				
	% by Total Weight of Mix	% by Dry Weight of Agg				
Mix Moisture, MC 0						

MIX Moisture, MC	0		
Target by TWM:	5.39%	Allowable Range	5.09 - 5.89
Target by DWA:	5.70%	Allowable Range	5.36 - 6.26

Approved By: Satrick Tene

Form: CCA-T308 Rev. 1.1 9/29/2017



#### COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS MATERIAL TESTING LABORATORY



#### CALTRANS TEST 375 - DENSITY AND RELATIVE COMPACTION OF IN-SITU ASPHALT CONCRETE

PRO	JECT: O serby N Cen	TESTED E	BY: JM		DATE: 4	-12-21	/	NUCLEAR DEVICE:				
			LOT NUM	BER:		LIFT THIC			Model & ID:			
PRO	JECT NUMBER: 123 Y		LANE NU	MBER:		DEPTH US	SED: BS		CALIB. D	ATE:		
Nuc.	Test No.:			LIFT NUM	BER:	Mix Type:		Plant: CCA		(A) ŞTD. (		
	•	TEST ARE	ALIMITS				FIEL	D NOTES AND	CALCULATI	ONS: (use ba	ck for additiona	I note)
(B) S	TART:			(D) LENGT	ГН (С-В):	,	]				,	
(C) F	INISH:			(E) LANE	NIDTH:					ļ		
	COLUMN			RAN	IDOM NUM	IBER		TABLE #			BLOCK #	510 G W
(G)	LEFT ( Longitudinal Loc	ation)										
(H)	RIGHT (Transverse Loc	ation)										
	TEST SITE LOCATIONS		1	2	3	4	5	6	7 🦸	8	9	10
(I)	Longitudinal Distance from Si D x G ( round up to whole nu		210'	525'	809'	12 20'	1580.	1800'				
(J)	STATION (1+B)		WR	Camino	Del NOT	te c D	re Can	m - 1				
(K)	Transverse Distance Iron Edge			84	84	81	8.					
(N)	DENSITY (g/cc) (round to nearest 0.01g/cc)	a b avg.	140.2 142.1 141.7	142.3 143.1 142.7	141.8 142.1 142.0	143.0 141.6 142.3	/42.7 143.1 142.9	171.5 140.8 171.2				
	Relative Compaction (%)	avy.	25	96	96	96	97	95				
(G)	LEFT ( Longitudinal Location)											
(H)	RIGHT (Transverse Location		all a									
	TEST SITE LOCATIONS	,	11	12	13	14	15	16	17	18	19	20
(K)	Longitudinal Distance from St D x G ( round up to whole num											
(L)	STATION (1 + B)											
	Transverse Distance from Edge E x H (round up to whole number)						,				•	
(N)	DENSITY (g/cc) (round to nearest 0.01g/cc)	a b avg.										
	Relative Compaction (%)											

(O) Average In-Place Density (all site), g/cc

(P) Conversion Factor (device to cores)

(Q) Corrected In-Place Density (O+ P), g/cc

Laboratory Test Maximum Density, g/cc Relative Compaction, °o



# DAILY FIELD REPORT

Materials Lab

Project Title Overlay N Contral	Job No. /023467
Project Location Camino Del Nork (W)	Date 4-12-21 Page 1 of 1
County Inspector D. Morchead	Field Technician JM
General / Subcontractor	Foreman Sel
Observation / Testing of AC Overlag	
	drum rollers; RTR
Arrival Departure	7 Time Charged
Weather Conditions	
Other Pertinent Conditions	
Description of Work Inspection	
1/2" Type A HMA #2121245 PMAC	placed by paver Camino Del Norte
@ Dore Canyon heading wast	
and Kon provided compaction	efforts. Firsts conducted produced
Min 95.1. RC. DC. abtorind Sam	
	strong were in a very bucy area
neary altraffic. Many knows in	oset at the long wait in the lines
	ronking homs. Pid not feel
Signature SD & Signature	sected traffic to obtain a
SIGNATURE, SU & AIGNETURE	Wes not obtained today
e ter en anna a terrer e al branca dan care dan anna anna anna a sa anna anna anna	
and the second	
	an and a second seco
ehicles and Equipment Used	
or test results(s) see "Request For and Report of Com	paction Tests" (Form 46)
ems to be addressed all next site visit	
4	
ounty Inspector/Superintendent Signature	Date
nite - Materials Lab Yellow - County Inspector Pink - Contractor	

### COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS MATERIALS TESTING LABORATORY

Plant:	CC/	A-LS		Project:	AC Overlay	AC Overlay North Central FY19-20			Oracle #: 1023467		Test Date:	4/13/2021			
Plant Inspector: N		N. Sancha		Sample	Date:	4/12/2021				Mix ID #:		21212415	Lab ID:	21-304	
Mix Size:	1/2" 1	Гуре А		Asphalt	Grade:			PG58-3	4		% Asphalt:		5.4	Total Batch Wt.:	
AGG. SIZE		СС	ARSE			FINE			RAP	(Coarse)	RAP (Fi	ne)	MF		
%	-	75		%	30	5	9	%	7.5	%	17.5 %		0 %		
Sample wt. (g)		2	630			505.	0							Combined Grading	SPECS
Sieve	Wt.	%	%	%	Wt. Ret.	%	%	%	%	%	%	%	%		
Size	Ret.	Ret.	Pass	Use		Ret.	Pass	Use	Pass	Use	Pass	Use	Used		
1"	0	0	100	75					100	7.5	100	17.5	0	100	100
3/4"	0	0	100	75					100	7.5	100	17.5	0	100	100
1/2"	192	7	93	70					95.6	7.2	100	17.5	0	94	90-100
3/8"	700	27	73	55					77.2	5.8	99.8	17.5	0	78	71-83
# 4	1358	52	48	36					31.4	2.4	85.5	15.0	0	54	48-62
#8					115	23	77	28	20.7	1.6	63	11.0	0	41	38-48
# 16					210	42	58	21	16.7	1.3	48.5	8.5	0	31	
# 30					315	62	38	14	13.7	1.0	36.7	6.4	0	21	18-26
# 50					408	81	19	7	10.2	0.8	25.4	4.4	0	12	
# 100					456	90	10	4	6.7	0.5	15.9	2.8	0	7	
# 200					474	94	6	2	4.4	0.3	10.3	1.8	0	4	2.4-6.4

Remarks	Sand Equivalent										
RAP Gradation provided by CCA Plant.	Specs.	SE Result Ave. SE Specs.				Sand Reading				Clay Reading	
har Gradadon provided by CCA Plant.	50	74	74	76	71	3.9	4.1	3.9	5.3	5.4	5.5

DPW FORM 122 (REV. 7/2020)

Test By: J. Mageo & N. Sancha

#### COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS ASPHALT CONCRETE DAILY TEST SUMMARY REPORT

Project Name:	Asphalt Concrete Over	rlay North Centr	al FY 19/20	W.A. # :	1023467
Sample Date:	4/12/2021	Plant:	CCA-Lakeside	Lab. No. :	21-307
HMA Mix :	1/2" Type A	Percent Oil:	5.40	Oil Type:	PG-58-34M W/Fiber
Sample Location:	Camino Del Norte			Mix ID #:	21212415

	AG	GREGATES	MATERIALS	ASPHALT CONCRETE						
A. <u>Grad</u>	ling After Extr	action (CT 2	<u>02)</u>	B. <u>Oil Content</u>	B. <u>Oil Content (CT 382)</u>					
Sar	mple Weight:	not te	ested	F	Percent Oil:	5.50				
SIZE SIEVE				SPEC'S.	C. <u>Bulk Specif</u> i	<u>ic Gravity ((</u>	<u>CT308)</u>			
		RETAINED			Ave. Bulk S	Sp. Gravity:	2.370			
1"	0	0	0	0						
1/2"	0	0	0	0	D. <u>Maximum S</u>	Specific Gtra	<u>avity (CT30</u>	<u>09)</u>		
3/8"	0	0	0	0	Max. S	Sp. Gravity:	2.452			
#4	0	0	0	0	E. <u>Air Voids</u>					
#8	0	0	0	0	Percer	nt Air Voids	3.4			
#16	0	0	0	0	F. <u>Stabilomete</u>	r Value (Cl	Г <u>366)</u>			
#30	0	0	0	0						
╟────┘	ļ	ļļ	├		Sample Sample ht.	A 2.49	B 2.49	C 2.48		
#50	0	0	0	0	Hor. Pressure	33	44	36		
#100	0	0	0	0	Hor. Displ.	2.82	2.84	3.21		
#100	U	U	U	U	Stability	47	39	47		
#200	0	0	0	0	Ave. Stability:	42	Spec's.	37		
REMAR	rks / Comme	ENTS:								

Form 23 (Rev. 7/20)

Prepared By:

Rvalles

Date: 4/15/2021