

#### **Northeast District**

Paula Gough, District Engineer

1711 Highway 61 S Hannibal, Missouri 63401 573.248.2490 Fax: 573.248.2467

1.888.ASK MODOT (275.6636)

#### Missouri Department of Transportation

October 9, 2018

Mr. Jay Johnson Ideal Sand P.O. Box 416 West Burlington, IA 52655

Dear Mr. Johnson:

A source approval sample was obtained from production by our personnel September 26. This sample represents sand from your plant, Ideal Sand, located 2 miles northeast of Wayland, MO. The sample was submitted to and tested in the Central Laboratory under SiteManager ID 18NELWK081.

This material has been approved for the production of material to meet the requirements of Section 1005, Class A. This constitutes approval for all other production that is intended for 1005 or lower quality material. Below are the test results:

<b>Test Method</b>	Test Result
Bulk Specific Gravity (AASHTO T85)	2.613
Absorption (AASHTO T85)	0.6
Unit Weight (AASHTO T19)	109

All material produced from your plant must meet all other requirements of the specifications for which it is specifically being produced, such as gradation, percentage of deleterious substances, etc. Attached is a copy of our Quarry Ledge Information Summary, which includes the most recent source sample data for all ledges within this quarry.

If you have any questions in regards to this approval, please contact me at (573) 248-2543, or at <a href="michael.baxter@modot.mo.gov">michael.baxter@modot.mo.gov</a>.

Sincerely,

Michael Baxter, P.E.

Assistant Construction and Materials Engineer

Ideal Sand, Wayland Sand Pit - 3021900313





### **QUARRY LEDGE INFORMATION SUMMARY - Source**

Ideal Sand, Wayland Sand Pit

PH#

(816)754-6783

2.0 Mi Ne/O Wayla Mo	ınd,	52655		West Burlington		Cla	-k C	County	•	•	
	Longitud	le: -91.5619	Latitude:	40.3986					PS	<b>#:</b> 302190031	
edge	Formation/ Member	Description/C	omponents								
	Lab ID#	Date	Micro Deval	IA	SPG	Abs	Unit Weight	MoDOT T14	T104	T161	
SAND	Glacial sand										
	Material represents Glacial Sand										
	Sample compl	lies with Specifi	cation 1005	fine aggregate	for concret	e Sand is C	lass A				
1005FACCNSCA	18NELWK081	2018 0926		e apprepare	2.613	0.6	109				
SAND	Glacial sand	2010 0320			2.013	0.0	103				
		esents Glacial Sa	and								
	·										
	Sample compl	lies with Specif	cation 1005	fine aggregate	for concret	e. Sand is C	lass B.				
1005FACCNSCB	18NECJH062	2018 0904			2.591	1.0	107				
		2010 0304			2.551		108				
SAND	Glacial sand										
	Material repre	sents Glacial Sa	and								
	Sample compl	lies with Specifi	cation 1005	fine aggregate	for concret	e Sand is C	lacc A				
1005FACCNSCA	17NECJH043	2017 0504		Three appropart	2.613	0.8	109				
SAND	Glacial sand	2017 0304			2.013	0.0	105			_	
		sents Glacial Sa	and								
	Sample compl	lies with Specifi	cation 1005	fine aggregate	for concret	e. Sand is C	lass A.				
1005FACCNSCA	16NEMA0188	2016 0412			2.606	0.9	109				
SAND	Glacial sand										
	Material represents Glacial Sand										
	Sample compl	lies with Specifi	cation 1005	fine aggregate	for concret	e. Sand is C	lass A.				
1005FACCNSCA	15NEMA0175	2015 0406		50 0	2.627	0.6	109				
SAND	Glacial sand				2.027	0.0	103				
		sents Glacial Sa	and								
		lies with Specifi	cation 1005	fine aggregate			lass A.				
1005FACCNSCA	14NEMA0187	2014 0328			2.612	8.0	110				
SAND	Glacial sand										
	Material repre	sents Glacial Sa	and								
	Sample compl	lies with Specifi	cation 1005	fine aggregate	for concret	e. Sand is C	lass A.				
1005FACCNSCA	13NEMA0194	2013 0405			2.612	0.8	109				
SAND	Glacial sand										
		sents Glacial Sa	and								
				•		_					
		lies with Specifi	cation 1005	fine aggregate			lass A.				
1005FACCNSCA	12NEMA0170	2012 0326			2.610	0.9	110				



# **QUARRY LEDGE INFORMATION SUMMARY - Source**

## Ideal Sand, Wayland Sand Pit

PH#

(816)754-6783

								(8	316)754-6783
nd, 52655			West Burlington		Cla	rk (	County		
Longitude	e: -91.5619 l	Latitude:	40.3986					PS	<b>5#:</b> 3021900313
Formation/ Member	Description/Co	mponents							3021300313
Lab iD#	Date	Micro Deval	LA	SPG	Abs	Unit Weight	MoDOT T14	T104	T161
Glacial sand									
Material represe	ents Glacial San	d							
Sample complie	es with Specifica	ation 1005.	2 Fine Aggreg	gate for concr	rete. Sand is	a Class B			
033MA0210	2003 0429			2.627	0.5	107			
Glacial sand									
Material represe	ents Glacial San	d							
Sample complie	s with Specifica	ation 1005.2	2 fine aggrega	ate for concre	ete =				
023MA0529	2002 0913			2.627	0.5	110			
Glacial sand									
023MA0473	2002 0815			2.602	0.9	105			
Glacial sand									
Material represe	ents Glacial San	d							
Sample complie	s with Specifica	tion 1005.2	! fine aggrega	ite for concre	ete				
023MA0276									
	Formation/ Member Lab ID#  Glacial sand Material repress  033MA0210  Glacial sand Material repress  Sample complie  023MA0529  Glacial sand 023MA0473  Glacial sand Material repress	Longitude: -91.5619 I Formation/ Member Description/Con Lab ID# Date  Glacial sand Material represents Glacial San  Sample complies with Specification  Glacial sand Material represents Glacial San  Sample complies with Specification  Sample complies with Specification  Glacial sand  Material represents Glacial San  Sample complies with Specification  Glacial sand  O23MA0529 2002 0913  Glacial sand  Material represents Glacial Sand  Material represents Glacial Sand	Longitude: -91.5619 Latitude:  Formation/ Member Description/Components Lab ID# Date Micro Deval  Glacial sand Material represents Glacial Sand  Sample complies with Specification 1005.2  033MA0210 2003 0429  Glacial sand Material represents Glacial Sand  Sample complies with Specification 1005.2  023MA0529 2002 0913  Glacial sand 023MA0473 2002 0815  Glacial sand Material represents Glacial Sand	Longitude: -91.5619 Latitude: 40.3986  Formation/ Member Description/Components Lab ID# Date Micro Deval LA  Glacial sand Material represents Glacial Sand  Sample complies with Specification 1005.2 Fine Aggres  033MA0210 2003 0429  Glacial sand Material represents Glacial Sand  Sample complies with Specification 1005.2 fine aggres  023MA0529 2002 0913  Glacial sand  023MA0473 2002 0815  Glacial sand Material represents Glacial Sand	Longitude: -91.5619 Latitude: 40.3986  Formation/ Member Description/Components Lab ID# Date Micro Deval LA SPG  Glacial sand Material represents Glacial Sand  Sample complies with Specification 1005.2 Fine Aggregate for concessor of the same of	Longitude: -91.5619 Latitude: 40.3986  Formation/ Member Date Micro Deval LA SPG Abs  Glacial sand Material represents Glacial Sand  Sample complies with Specification 1005.2 Fine Aggregate for concrete. Sand is Material represents Glacial Sand  Material represents Glacial Sand  Sample complies with Specification 1005.2 fine aggregate for concrete Sand is Material represents Glacial Sand  Sample complies with Specification 1005.2 fine aggregate for concrete O23MA0529 2002 0913 2.627 0.5  Glacial sand O23MA0473 2002 0815 2.602 0.9  Glacial sand	Longitude: 91.5619 Latitude: 40.3986  Formation/ Member Date Micro Deval LA SPG Abs Unit Weight  Glacial sand Material represents Glacial Sand  Sample complies with Specification 1005.2 Fine Aggregate for concrete. Sand is a Class B Material represents Glacial Sand  Glacial sand Material represents Glacial Sand  Sample complies with Specification 1005.2 Fine Aggregate for concrete. Sand is a Class B Material represents Glacial Sand  Glacial sand Material represents Glacial Sand  Sample complies with Specification 1005.2 fine aggregate for concrete   023MA0529 2002 0913 2.627 0.5 110  Glacial sand   023MA0473 2002 0815 2.602 0.9 105  Glacial sand   Material represents Glacial Sand	Longitude: 91.5619 Latitude: 40.3986  Formation/ Member Lab ID# Date Micro Deval LA SPG Abs Unit Weight T14  Glacial sand Material represents Glacial Sand  Material represents Glacial Sand  Sample complies with Specification 1005.2 Fine Aggregate for concrete. Sand is a Class B  Glacial sand Material represents Glacial Sand  Sample complies with Specification 1005.2 Fine Aggregate for concrete. Sand is a Class B  Glacial sand Material represents Glacial Sand  Sample complies with Specification 1005.2 fine aggregate for concrete  023MA0529 2002 0913 2.627 0.5 110  Glacial sand 023MA0473 2002 0815 2.602 0.9 105  Glacial sand Material represents Glacial Sand	Longitude: -91.5619 Latitude: 40.3986 PS  Formation/ Member Date Micro Deval LA SPG Abs Unit MoDOT T104  Glacial sand Material represents Glacial Sand  Sample complies with Specification 1005.2 Fine Aggregate for concrete. Sand is a Class B  Glacial sand Material represents Glacial Sand  Sample complies with Specification 1005.2 Fine Aggregate for concrete. Sand is a Class B  Glacial sand Material represents Glacial Sand  Sample complies with Specification 1005.2 fine aggregate for concrete  O23MA0210 2003 0429 2.627 0.5 107  Glacial sand Sample complies with Specification 1005.2 fine aggregate for concrete  O23MA0529 2002 0913 2.627 0.5 110  Glacial sand O23MA0473 2002 0815 2.602 0.9 105  Glacial sand Material represents Glacial Sand