



Mosaic Fertilizer, L.L.C.

Environmental Lab



NELAP Certification #
E 84578

ANALYTICAL TEST REPORT

THESE RESULTS MEET NELAP STANDARDS

Work Order Number: S207088

Client: Fort Green

Project Name: Outfalls - FTG D-005 Weekly

Date Received: 07/13/2022

Time Received: 12:00

Lab ID: S207088-01 (Water) Sample Description: MFG-D-005 DeSoto County Split Sample
 Date Sampled: 07/13/2022 Sample Method: Grab
 Time Sampled: 11:05 Source ID: 019005

Parameter	Result	Error	Qualifier	Units	MDL	PQL	Procedure	Analysis		Analyst
								Date	Time	
Chlorophyll a - free of pheophytin	12.0			ug/L	0.07	0.28	EPA 445	07/22/2022	09:10	DJ
Fluoride	1.69			mg/L	0.0800	0.300	EPA 300.0	07/21/2022	13:46	AC
Nitrate-Nitrite	0.0470			mg/L	0.0100	0.0380	EPA 353.2	07/19/2022	13:50	KW
Phosphorus, Total	0.779			mg/L	0.0500	0.200	EPA 365.4	07/20/2022	11:13	KW
Residue-fixed	2.80		J-2	mg/L	1.00	1.00	EPA 160.4	07/19/2022	08:19	DJ
Residue-nonfilterable (TSS)	6.00		J-2	mg/L	1.00	1.00	SM 2540 D	07/19/2022	08:19	DJ
Sulfate	87.0			mg/L	1.40	5.00	EPA 300.0	07/21/2022	13:46	AC
Total Kjeldahl Nitrogen	1.85			mg/L	0.100	0.400	EPA 351.2	07/20/2022	11:13	KW
Total N	1.90			mg/L	0.110	0.438	TKN + Total nitrate-nitrite	07/20/2022	11:13	KW
Arsenic	0.00300		U	mg/L	0.00300	0.0120	EPA 200.7	07/20/2022	18:22	VB
Dissolved Oxygen Saturation	54.3			per cent			FT 1500	07/13/2022	11:05	BMi
pH	7.70			SU			FT 1100	07/13/2022	11:05	BMi
Specific Conductance	522			umhos/cm			FT 1200	07/13/2022	11:05	BMi
Staff Gauge	0.28			feet			Calculated	07/13/2022	11:05	BMi
Water Temperature	29.3			°C			FT 1400	07/13/2022	11:05	BMi
Turbidity	4.39			NTU			FT 1600	07/13/2022	11:05	BMi
Gross-Alpha	5.4	+/- 2.3		pCi/L	1.8	1.8	EPA 900.0	07/22/2022	05:55	FRS
Radium 226 + Radium 228	1.1	+/- 0.6		pCi/L	0.7	0.7	Calculated	07/26/2022	11:59	FRS
Radium-226	1.1	+/- 0.3		pCi/L	0.1	0.1	EPA 903.1	07/26/2022	11:59	FRS
Radium-228	0.7	+/- 0.5	U	pCi/L	0.7	0.7	Ra - 05	07/25/2022	12:43	FRS
Oil and Grease	1.37		U	MG/L	1.37	5.48	EPA 1664A	07/29/2022	12:08	Bench



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Work Order Number: S207088
Project Name: Outfalls - FTG D-005 Weekly

Wet Chemistry - Quality Control

Analyte	Result	Qualifiers	Units	MDL	PQL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B207142 - Nutrient Prep											
Blank (B207142-BLK1)						Prepared & Analyzed: 07/20/22					
Phosphorus, Total	0.0500	U	mg/L	0.0500	0.200						
Total Kjeldahl Nitrogen	0.100	U	mg/L	0.100	0.400						
Blank (B207142-BLK2)						Prepared & Analyzed: 07/20/22					
Phosphorus, Total	0.0500	U	mg/L	0.0500	0.200						
Total Kjeldahl Nitrogen	0.100	U	mg/L	0.100	0.400						
Blank (B207142-BLK3)						Prepared & Analyzed: 07/20/22					
Total Kjeldahl Nitrogen	0.100	U	mg/L	0.100	0.400						
Phosphorus, Total	0.0500	U	mg/L	0.0500	0.200						
Blank (B207142-BLK4)						Prepared & Analyzed: 07/20/22					
Total Kjeldahl Nitrogen	0.100	U	mg/L	0.100	0.400						
Phosphorus, Total	0.0500	U	mg/L	0.0500	0.200						
LCS (B207142-BS1)						Prepared & Analyzed: 07/20/22					
Total Kjeldahl Nitrogen	2.17		mg/L	0.100	0.400	2.00		109	90-110		
Phosphorus, Total	2.01		mg/L	0.0500	0.200	2.00		100	90-110		
LCS (B207142-BS2)						Prepared & Analyzed: 07/20/22					
Total Kjeldahl Nitrogen	2.16		mg/L	0.100	0.400	2.00		108	90-110		
Phosphorus, Total	2.05		mg/L	0.0500	0.200	2.00		102	90-110		
LCS (B207142-BS3)						Prepared & Analyzed: 07/20/22					
Total Kjeldahl Nitrogen	2.17		mg/L	0.100	0.400	2.00		108	90-110		
Phosphorus, Total	1.97		mg/L	0.0500	0.200	2.00		98.5	90-110		
LCS (B207142-BS4)						Prepared & Analyzed: 07/20/22					
Total Kjeldahl Nitrogen	2.17		mg/L	0.100	0.400	2.00		108	90-110		
Phosphorus, Total	2.06		mg/L	0.0500	0.200	2.00		103	90-110		



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Analyte	Result	Qualifiers	Units	MDL	PQL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B207142 - Nutrient Prep											
Duplicate (B207142-DUP1)			Source: S207024-01			Prepared & Analyzed: 07/20/22					
Total Kjeldahl Nitrogen	2.51		mg/L	0.100	0.400		2.51		0.00		30
Phosphorus, Total	1.17		mg/L	0.0500	0.200		1.15		1.38		30
Duplicate (B207142-DUP2)			Source: S207027-02			Prepared & Analyzed: 07/20/22					
Total Kjeldahl Nitrogen	0.284	I, J-3	mg/L	0.100	0.400		0.262		8.06		30
Phosphorus, Total	1.42		mg/L	0.0500	0.200		1.43		0.491		30
Duplicate (B207142-DUP3)			Source: S207043-01			Prepared & Analyzed: 07/20/22					
Total Kjeldahl Nitrogen	1.25	J-3	mg/L	0.100	0.400		1.22		2.19		30
Phosphorus, Total	0.0500	U, J-3	mg/L	0.0500	0.200		U				30
Duplicate (B207142-DUP4)			Source: S207048-05			Prepared & Analyzed: 07/20/22					
Total Kjeldahl Nitrogen	1.41		mg/L	0.100	0.400		1.45		2.93		30
Phosphorus, Total	0.0570	I	mg/L	0.0500	0.200		0.0580		1.74		30
Duplicate (B207142-DUP5)			Source: S207067-01			Prepared & Analyzed: 07/20/22					
Total Kjeldahl Nitrogen	2.32	J-3	mg/L	0.100	0.400		2.28		1.74		30
Phosphorus, Total	0.884		mg/L	0.0500	0.200		0.883		0.113		30
Duplicate (B207142-DUP6)			Source: S207072-01			Prepared & Analyzed: 07/20/22					
Phosphorus, Total	1.14		mg/L	0.0500	0.200		1.14		0.175		30
Total Kjeldahl Nitrogen	0.722	J-3	mg/L	0.100	0.400		0.681		5.84		30
Duplicate (B207142-DUP7)			Source: S207085-01			Prepared & Analyzed: 07/20/22					
Total Kjeldahl Nitrogen	0.205	I, J-3	mg/L	0.100	0.400		0.245		17.8		30
Phosphorus, Total	0.0500	U	mg/L	0.0500	0.200		U				30
Duplicate (B207142-DUP8)			Source: S207089-01			Prepared & Analyzed: 07/20/22					
Total Kjeldahl Nitrogen	0.173	I, J-3	mg/L	0.100	0.400		0.224		25.7		30
Phosphorus, Total	0.0500	U	mg/L	0.0500	0.200		U				30



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Analyte	Result	Qualifiers	Units	MDL	PQL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B207142 - Nutrient Prep											
Matrix Spike (B207142-MS1)			Source: S207024-01			Prepared & Analyzed: 07/20/22					
Total Kjeldahl Nitrogen	3.57		mg/L	0.100	0.400	1.00	2.51	106	90-110		
Phosphorus, Total	2.15		mg/L	0.0500	0.200	1.00	1.15	99.9	90-110		
Matrix Spike (B207142-MS2)			Source: S207027-02			Prepared & Analyzed: 07/20/22					
Phosphorus, Total	2.43		mg/L	0.0500	0.200	1.00	1.43	99.6	90-110		
Total Kjeldahl Nitrogen	1.57	J-3	mg/L	0.100	0.400	1.00	0.262	131	90-110		
Matrix Spike (B207142-MS3)			Source: S207043-01			Prepared & Analyzed: 07/20/22					
Total Kjeldahl Nitrogen	2.56	J-3	mg/L	0.100	0.400	1.00	1.22	134	90-110		
Phosphorus, Total	1.11	J-3	mg/L	0.0500	0.200	1.00	U	111	90-110		
Matrix Spike (B207142-MS4)			Source: S207048-05			Prepared & Analyzed: 07/20/22					
Total Kjeldahl Nitrogen	2.54		mg/L	0.100	0.400	1.00	1.45	109	90-110		
Phosphorus, Total	1.07		mg/L	0.0500	0.200	1.00	0.0580	102	90-110		
Matrix Spike (B207142-MS5)			Source: S207067-01			Prepared & Analyzed: 07/20/22					
Total Kjeldahl Nitrogen	3.63	J-3	mg/L	0.100	0.400	1.00	2.28	136	90-110		
Phosphorus, Total	1.96		mg/L	0.0500	0.200	1.00	0.883	108	90-110		
Matrix Spike (B207142-MS6)			Source: S207072-01			Prepared & Analyzed: 07/20/22					
Total Kjeldahl Nitrogen	1.92	J-3	mg/L	0.100	0.400	1.00	0.681	124	90-110		
Phosphorus, Total	2.15		mg/L	0.0500	0.200	1.00	1.14	101	90-110		
Matrix Spike (B207142-MS7)			Source: S207085-01			Prepared & Analyzed: 07/20/22					
Total Kjeldahl Nitrogen	1.36	J-3	mg/L	0.100	0.400	1.00	0.245	112	90-110		
Phosphorus, Total	1.07		mg/L	0.0500	0.200	1.00	U	107	90-110		
Matrix Spike (B207142-MS8)			Source: S207089-01			Prepared & Analyzed: 07/20/22					
Total Kjeldahl Nitrogen	1.35	J-3	mg/L	0.100	0.400	1.00	0.224	113	90-110		
Phosphorus, Total	1.03		mg/L	0.0500	0.200	1.00	U	103	90-110		



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Analyte	Result	Qualifiers	Units	MDL	PQL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B207142 - Nutrient Prep											
Reference (B207142-SRM1)				Prepared & Analyzed: 07/20/22							
Phosphorus, Total	1.98		mg/L	0.0500	0.200	2.00		98.8	90-110		
Total Kjeldahl Nitrogen	2.08		mg/L	0.100	0.400	2.00		104	90-110		
Batch B207143 - Nutrient Prep											
Blank (B207143-BLK1)				Prepared & Analyzed: 07/19/22							
Nitrate-Nitrite	0.0100	U	mg/L	0.0100	0.0380						
Blank (B207143-BLK2)				Prepared & Analyzed: 07/19/22							
Nitrate-Nitrite	0.0100	U	mg/L	0.0100	0.0380						
Blank (B207143-BLK3)				Prepared & Analyzed: 07/19/22							
Nitrate-Nitrite	0.0100	U	mg/L	0.0100	0.0380						
Blank (B207143-BLK4)				Prepared & Analyzed: 07/19/22							
Nitrate-Nitrite	0.0100	U	mg/L	0.0100	0.0380						
LCS (B207143-BS1)				Prepared & Analyzed: 07/19/22							
Nitrate-Nitrite	1.02		mg/L	0.0100	0.0380	1.00		102	90-110		
LCS (B207143-BS2)				Prepared & Analyzed: 07/19/22							
Nitrate-Nitrite	1.02		mg/L	0.0100	0.0380	1.00		102	90-110		
LCS (B207143-BS3)				Prepared & Analyzed: 07/19/22							
Nitrate-Nitrite	1.02		mg/L	0.0100	0.0380	1.00		102	90-110		
LCS (B207143-BS4)				Prepared & Analyzed: 07/19/22							
Nitrate-Nitrite	1.00		mg/L	0.0100	0.0380	1.00		100	90-110		



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Batch B207143 - Nutrient Prep											
Duplicate (B207143-DUP1)			Source: S207027-01			Prepared & Analyzed: 07/19/22					
Nitrate-Nitrite	0.0100	U	mg/L	0.0100	0.0380		U				30
Duplicate (B207143-DUP2)			Source: S207027-02			Prepared & Analyzed: 07/19/22					
Nitrate-Nitrite	0.0590		mg/L	0.0100	0.0380		0.0580			1.71	30
Duplicate (B207143-DUP3)			Source: S207041-08			Prepared & Analyzed: 07/19/22					
Nitrate-Nitrite	0.0160	I	mg/L	0.0100	0.0380		0.0160			0.00	30
Duplicate (B207143-DUP4)			Source: S207048-05			Prepared & Analyzed: 07/19/22					
Nitrate-Nitrite	0.0100	U	mg/L	0.0100	0.0380		U				30
Duplicate (B207143-DUP5)			Source: S207059-01			Prepared & Analyzed: 07/19/22					
Nitrate-Nitrite	0.0100	U	mg/L	0.0100	0.0380		U				30
Duplicate (B207143-DUP6)			Source: S207075-01			Prepared & Analyzed: 07/19/22					
Nitrate-Nitrite	0.0110	I, J-3	mg/L	0.0100	0.0380		U				30
Duplicate (B207143-DUP7)			Source: S207085-02			Prepared & Analyzed: 07/19/22					
Nitrate-Nitrite	0.0190	I	mg/L	0.0100	0.0380		0.0200			5.13	30
Duplicate (B207143-DUP8)			Source: S207086-09			Prepared & Analyzed: 07/19/22					
Nitrate-Nitrite	0.950	J-3	mg/L	0.0100	0.0380		0.952			0.210	30
Matrix Spike (B207143-MS1)			Source: S207027-01			Prepared & Analyzed: 07/19/22					
Nitrate-Nitrite	0.497		mg/L	0.0100	0.0380	0.500	U	99.4	90-110		
Matrix Spike (B207143-MS2)			Source: S207027-02			Prepared & Analyzed: 07/19/22					
Nitrate-Nitrite	0.550		mg/L	0.0100	0.0380	0.500	0.0580	98.4	90-110		



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Batch B207143 - Nutrient Prep											
Matrix Spike (B207143-MS3)			Source: S207041-08			Prepared & Analyzed: 07/19/22					
Nitrate-Nitrite	0.480		mg/L	0.0100	0.0380	0.500	0.0160	92.8	90-110		
Matrix Spike (B207143-MS4)			Source: S207048-05			Prepared & Analyzed: 07/19/22					
Nitrate-Nitrite	0.465		mg/L	0.0100	0.0380	0.500	U	93.0	90-110		
Matrix Spike (B207143-MS5)			Source: S207059-01			Prepared & Analyzed: 07/19/22					
Nitrate-Nitrite	0.479		mg/L	0.0100	0.0380	0.500	U	95.8	90-110		
Matrix Spike (B207143-MS6)			Source: S207075-01			Prepared & Analyzed: 07/19/22					
Nitrate-Nitrite	0.0110	I, J-3	mg/L	0.0100	0.0380	0.500	U	2.20	90-110		
Matrix Spike (B207143-MS7)			Source: S207085-02			Prepared & Analyzed: 07/19/22					
Nitrate-Nitrite	0.482		mg/L	0.0100	0.0380	0.500	0.0200	92.4	90-110		
Matrix Spike (B207143-MS8)			Source: S207086-09			Prepared & Analyzed: 07/19/22					
Nitrate-Nitrite	1.36	J-3	mg/L	0.0100	0.0380	0.500	0.952	82.2	90-110		
Reference (B207143-SRM1)			Prepared & Analyzed: 07/19/22								
Nitrate-Nitrite	1.01		mg/L	0.0100	0.0380	1.00		101	0-200		
Batch B207159 - DEFAULT PREP Wet Chem											
Blank (B207159-BLK1)			Prepared & Analyzed: 07/19/22								
Residue-nonfilterable (TSS)	1.00	U	mg/L	1.00	1.00						
LCS (B207159-BS1)			Prepared & Analyzed: 07/19/22								
Residue-nonfilterable (TSS)	44.0		mg/L	1.00	1.00	46.2		95.2	90-110		



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Batch B207159 - DEFAULT PREP Wet Chem											
Duplicate (B207159-DUP1)			Source: S207088-01			Prepared & Analyzed: 07/19/22					
Residue-nonfilterable (TSS)	5.00	J-2	mg/L	1.00	1.00		6.00			18.2	5
Duplicate (B207159-DUP2)			Source: S207107-05			Prepared & Analyzed: 07/19/22					
Residue-nonfilterable (TSS)	5.00	J-2	mg/L	1.00	1.00		5.40			7.69	5
Batch B207160 - DEFAULT PREP Wet Chem											
Blank (B207160-BLK1)			Prepared & Analyzed: 07/19/22								
Residue-fixed	1.00	U	mg/L	1.00	1.00						
Duplicate (B207160-DUP1)			Source: S207088-01			Prepared & Analyzed: 07/19/22					
Residue-fixed	1.40	J-2	mg/L	1.00	1.00		2.80			66.7	5
Batch B207185 - Anion Prep											
Blank (B207185-BLK1)			Prepared & Analyzed: 07/20/22								
Fluoride	0.0800	U	mg/L	0.0800	0.300						
Sulfate	1.40	U	mg/L	1.40	5.00						
Blank (B207185-BLK2)			Prepared & Analyzed: 07/21/22								
Sulfate	1.40	U	mg/L	1.40	5.00						
Fluoride	0.0800	U	mg/L	0.0800	0.300						
LCS (B207185-BS1)			Prepared & Analyzed: 07/20/22								
Sulfate	19.5		mg/L	1.40	5.00	20.0		97.4	90-110		
Fluoride	2.16		mg/L	0.0800	0.300	2.00		108	90-110		



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Batch B207185 - Anion Prep											
LCS (B207185-BS2)											
						Prepared & Analyzed: 07/21/22					
Sulfate	19.3		mg/L	1.40	5.00	20.0		96.4	90-110		
Fluoride	2.08		mg/L	0.0800	0.300	2.00		104	90-110		
Duplicate (B207185-DUP1)											
						Source: S207082-04 Prepared & Analyzed: 07/20/22					
Sulfate	23.8	J-3	mg/L	1.40	5.00		24.0			0.611	20
Fluoride	0.0800	U	mg/L	0.0800	0.300		U				20
Duplicate (B207185-DUP2)											
						Source: S207084-01 Prepared & Analyzed: 07/21/22					
Sulfate	1.40	U	mg/L	1.40	5.00		U				20
Fluoride	1.81		mg/L	0.0800	0.300		1.81			0.221	20
Duplicate (B207185-DUP3)											
						Source: S207086-03 Prepared & Analyzed: 07/21/22					
Sulfate	26.6		mg/L	1.40	5.00		25.0			6.08	20
Fluoride	0.197	I	mg/L	0.0800	0.300		0.184			6.82	20
Matrix Spike (B207185-MS1)											
						Source: S207082-04 Prepared & Analyzed: 07/20/22					
Fluoride	2.13		mg/L	0.0800	0.300	2.00	U	107	90-110		
Sulfate	41.3	J-3	mg/L	1.40	5.00	20.0	24.0	86.9	90-110		
Matrix Spike (B207185-MS2)											
						Source: S207084-01 Prepared & Analyzed: 07/21/22					
Sulfate	19.0		mg/L	1.40	5.00	20.0	U	94.9	90-110		
Fluoride	3.87		mg/L	0.0800	0.300	2.00	1.81	103	90-110		
Matrix Spike (B207185-MS3)											
						Source: S207086-03 Prepared & Analyzed: 07/21/22					
Sulfate	44.2		mg/L	1.40	5.00	20.0	25.0	95.6	90-110		
Fluoride	2.35		mg/L	0.0800	0.300	2.00	0.184	108	90-110		
Reference (B207185-SRM1)											
						Prepared & Analyzed: 07/20/22					
Fluoride	10.8		mg/L	0.0800	0.300	10.0		108	90-110		
Sulfate	101		mg/L	1.40	5.00	100		101	90-110		



Mosaic Fertilizer, L.L.C.

Environmental Lab



NELAP Certification #
E 84578

QC REPORT

THESE RESULTS MEET NELAP STANDARDS

Work Order Number: S207088
Project Name: Outfalls - FTG D-005 Weekly

Wet Chemistry - Quality Control

Analyte	Result	Qualifiers	Units	MDL	PQL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B207201 - DEFAULT PREP Wet Chem											
Blank (B207201-BLK1)											
						Prepared: 07/13/22 Analyzed: 07/22/22					
Chlorophyll a - free of pheophytin	0.07	U	ug/L	0.07	0.28						
LCS (B207201-BS1)											
						Prepared: 07/21/22 Analyzed: 07/22/22					
Chlorophyll a - free of pheophytin	61.5		ug/L	0.07	0.28	58.7		105	90-110		
Duplicate (B207201-DUP1)											
				Source: S207027-02		Prepared: 07/07/22 Analyzed: 07/22/22					
Chlorophyll a - free of pheophytin	0.42		ug/L	0.07	0.28		0.51			19.4	30



Mosaic Fertilizer, L.L.C.

Environmental Lab



NELAP Certification #
E 84578

QC REPORT

THESE RESULTS MEET NELAP STANDARDS

Work Order Number: S207088
Project Name: Outfalls - FTG D-005 Weekly

Metals - Quality Control

Analyte	Result	Qualifiers	Units	MDL	PQL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B207163 - EPA 200.7											
Blank (B207163-BLK1) Prepared: 07/19/22 Analyzed: 07/20/22											
Arsenic	0.00300	U	mg/L	0.00300	0.0120						
Blank (B207163-BLK2) Prepared: 07/19/22 Analyzed: 07/20/22											
Arsenic	0.00369	I	mg/L	0.00300	0.0120						
LCS (B207163-BS1) Prepared: 07/19/22 Analyzed: 07/20/22											
Arsenic	0.315		mg/L	0.00300	0.0120	0.320		98.4	90-110		
LCS (B207163-BS2) Prepared: 07/19/22 Analyzed: 07/20/22											
Arsenic	0.314		mg/L	0.00300	0.0120	0.320		98.0	90-110		
Matrix Spike (B207163-MS1) Source: S207048-02 Prepared: 07/19/22 Analyzed: 07/20/22											
Arsenic	0.159		mg/L	0.00300	0.0120	0.160	U	99.6	70-130		
Matrix Spike (B207163-MS2) Source: S207063-01 Prepared: 07/19/22 Analyzed: 07/20/22											
Arsenic	0.159		mg/L	0.00300	0.0120	0.160	U	99.5	70-130		
Matrix Spike (B207163-MS3) Source: S207085-03 Prepared: 07/19/22 Analyzed: 07/20/22											
Arsenic	0.156		mg/L	0.00300	0.0120	0.160	U	97.5	70-130		
Matrix Spike (B207163-MS4) Source: S207095-01 Prepared: 07/19/22 Analyzed: 07/20/22											
Arsenic	0.161		mg/L	0.00300	0.0120	0.160	U	101	70-130		
Matrix Spike Dup (B207163-MSD1) Source: S207048-02 Prepared: 07/19/22 Analyzed: 07/20/22											
Arsenic	0.161		mg/L	0.00300	0.0120	0.160	U	101	70-130	1.31	20
Matrix Spike Dup (B207163-MSD2) Source: S207063-01 Prepared: 07/19/22 Analyzed: 07/20/22											
Arsenic	0.159		mg/L	0.00300	0.0120	0.160	U	99.3	70-130	0.221	20



Mosaic Fertilizer, L.L.C.

Environmental Lab



NELAP Certification #
E 84578

QC REPORT

THESE RESULTS MEET NELAP STANDARDS

Work Order Number: S207088
Project Name: Outfalls - FTG D-005 Weekly

Metals - Quality Control

Analyte	Result	Qualifiers	Units	MDL	PQL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B207163 - EPA 200.7											
Matrix Spike Dup (B207163-MSD3)			Source: S207085-03		Prepared: 07/19/22 Analyzed: 07/20/22						
Arsenic	0.157		mg/L	0.00300	0.0120	0.160	U	98.2	70-130	0.691	20
Matrix Spike Dup (B207163-MSD4)			Source: S207095-01		Prepared: 07/19/22 Analyzed: 07/20/22						
Arsenic	0.157		mg/L	0.00300	0.0120	0.160	U	98.4	70-130	2.30	20
Reference (B207163-SRM1)			Prepared: 07/19/22 Analyzed: 07/20/22								
Arsenic	0.313		mg/L	0.00300	0.0120	0.320		97.7	95-105		



Mosaic Fertilizer, L.L.C.

Environmental Lab



NELAP Certification #
E 84578

08/17/2022

Joshua Lipham / Technical Director

Date

DATA QUALIFIERS THAT MAY APPLY:

- U = Not detected at or above the adjusted reporting limit
- I = The value is between the MDL and the PQL
- V = The analyte was detected in both the sample and the associated method blank
- J-3 = A sample matrix interference is suspected. Does not interfere with data usability.
- J-2 = The reported value failed to meet the established quality control criteria for either precision or accuracy. The data usability is not effected.

NOTES:

- MDL = Method Detection Limit
- PQL = Practical Quantification Limit
- %REC = Percent Recovery
- RPD = Relative Percent Difference

For questions and comments regarding these results, please contact Joshua Lipham @ (863) 428-2732 (email: Joshua.Lipham@mosaicco.com).
Results relate only to the samples.

Mosaic
 Minerals Environmental
 13830 Circa Crossing Drive
 Lithia, FL 33547

Date: 7-13-22
 COC #: _____

S207088

Mosaic Environmental Lab
 7450 C.R. 630
 Mulberry, FL. 33860
 (863) 428 - 2761

Samples For: Compliance: _____
 Non-Compliance: _____
 Revised Date: 08/16/2021

Owner: Mike Mooneyham

Sampled By (Print):	<u>Bruce Miller</u>	Report to:	
Sampler Signature:	<u>Bruce Miller</u>	Project Name:	Fort Green D-005 - DeSoto County Split Sample

Date:	Time:	LAB ID #	SOURCE ID #	Sample ID	Type	B Unpreserved 950ml: TSS,FSS	C Unpreserved 250 ml: F, SO4	A H2SO4 500 ml: Total P, Total N	D Unpreserved 500 ml Amber: Chloro-a	E H2SO4 950ml Glass Amber: Oil and Grease	F HNO3 250 ml: As	G HNO3 1/2 gal: GA, Ra226/228
<u>7-13-22</u>	<u>1105</u>	<u>-01</u>	<u>019005</u>	<u>FTG D 005</u>	<u>G</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>

Items:	Relinquished By:	Accepted By:	Date / Time:
<u>7</u>	<u>Bruce Miller</u>	<u>Ruby Coppens</u>	<u>7-13-22</u>
			<u>1200</u>



TEMP 8.4 C
 THERMOMETER ID
 2011207
 PHX2 ✓ INIT kw
 PH PAPER ID
 0051201

Please reference the electronic copy of this document on the company intranet to ensure this printed copy is the most recent version.

Bruce M. Ibe

SURFA **Mosaic** DATA SHEET

7-13-22

Project: Fort Green D-005 - DeSoto County Split Sample

Source ID	Location	TYPE	TIME	FDEP-FT-1100	FDEP-FT-1200	FDEP-FT-1400	FDEP-FT-1600	FDEP-FT-1500	SAMPLE DEPTH	FLOW	STAFF GAUGE	WATER ELEVATION	COLOR	
				PH	COND	TEMP	Turbidity	DO						DO Sat
		Grab/Comp.		6.0< PH <8.5 S.U.	<1275 µS	°C	<29 NTU's	>5.0 mg/L	>38 %	Feet	MGD	Feet	MSL	
019005	FTG D 005	G	1105	7.70	522	29.3	4.39	11.1	54.3	Towle	-0.28	92.2	LT	

Source ID	Location	Width (ft)	x Depth (ft)	x Velocity (ft/s)	= CFS	x 0.64632 = MGD

Sampling Sequence: VOC, Organics, Metals, Microbio, Inorganics/Physical, Rad

BEGIN TIME 1100 END TIME 1115

FIELD CONDITIONS FOR SAMPLING DATE : CLOUD COVER: Clear / Scattered / Broken / Overcast

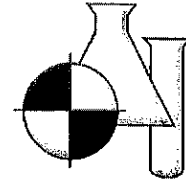
WIND DIRECTION: N / NE / E / SE / S / SW / W / NW / Variable / Calm

AMBIENT TEMP. (°C) start: 32.2 end: 32.2

VISIBILITY start: 10 miles end: 10 miles

COMMENTS:

BENCHMARK



EnviroAnalytical, Inc.

NELAP Certification #E84167

ANALYTICAL TEST REPORT THESE RESULTS MEET NELAP STANDARDS

Submission Number : 22070613

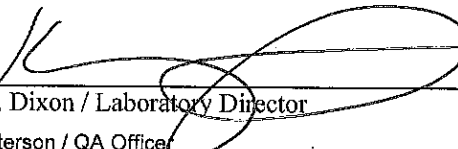
Mosaic Fertilizer, L L C
13830 Circa Crossing Drive
Lithia, FL 33547

Project Name : FORT GREEN OUTFALLS - FTG D-005
Project ID : S207088
Date Received : 07/13/2022
Time Received : 15:00

Joshua Lipham

Submission Number:	22070613	Sample Point:	019005
Sample Number:	001	Sample ID:	S207088-01
Sample Date:	07/13/2022	Sample Description:	MFG-D005 DeSoto County Split Sample
Sample Time:	11:05	Sample Method:	Grab

Parameter	Result	Units	MDL	PQL	Procedure	Analysis Date/Time	Analyst
OIL & GREASE	1.37 U	MG/L	1.37	5.48	1664A	08/03/2022 10:21	PN


 Dale D. Dixon / Laboratory Director 08/16/2022
 Kara Peterson / QA Officer Date
 Tülay Tarrisever / QC Officer

DATA QUALIFIERS THAT MAY APPLY:

A = Value reported is an average of two or more determinations.
 B = Results based upon colony counts outside the ideal range.
 H = Value based on field kit determination. Results may not be accurate.
 I = Reported value is between the laboratory MDL and the PQL.
 J1 = Estimated value. Surrogate recovery limits exceeded.
 J2 = Estimated value. No quality control criteria exists for component.
 J3 = Estimated value. Quality control criteria for precision or accuracy not met.
 J4 = Estimated value. Sample matrix interference suspected.
 J5 = Estimated value. Data questionable due to improper lab or field protocols.
 K = Off-scale low. Value is known to be < the value reported.
 L = Off-scale high. Value is known to be > the value reported.
 N = Presumptive evidence of presence of material.
 O = Sampled, but analysis lost or not performed.

Q = Sample held beyond accepted hold time.
 T = Value reported is < MDL. Reported for informational purposes only and shall not be used in statistical analysis.
 U = Analyte analyzed but not detected at the value indicated.
 V = Analyte detected in sample and method blank. Results for this analyte in associated samples may be biased high. Standard, Duplicate and Spike values are within control limits. Reported data are usable.
 Y = Analysis performed on an improperly preserved sample. Data may be inaccurate.
 Z = Too many colonies were present (TNTC). The numeric value represents the filtration volume.
 | = Data deviate from historically established concentration ranges.
 ? = Data rejected and should not be used. Some or all of QC data were outside criteria, and the presence or absence of the analyte cannot be determined from the data.
 * = Not reported due to interference.
 Oil & Grease - If client does not send sufficient sample quantity for spike evaluation surface water samples are supplied by the laboratory.

NOTES:

PQL = 4xMDL.
 MBAS calculated as LAS; molecular weight = 340.
 ND = Not detected at or above the adjusted reporting limit.
 X = Value exceeds MCL.

COMMENTS:

The associated laboratory control sample exhibited high bias; since the result is ND, there is no impact.
 For questions and comments regarding these results, please contact us at (941) 723-9986.
 Results relate only to the samples.

SUBCONTRACT ORDER
Mosaic Fertilizer, LLC Environmental Laboratory



Fort Green
Outfalls - FTG D-005 Weekly

S207088

SENDING LABORATORY:

Mosaic Fertilizer, LLC Environmental Laboratory
7450 CR 630 Building 1
Mulberry, FL 33865
Phone: 863-428-2764
Project Manager: Joshua Lipham

RECEIVING LABORATORY:

Benchmark Analytical
1711 12th St. E.
Palmetto, FL 34221
Phone : (941) 723-9986

Sub Lab ID

Sample ID: S207088-01 019005

MFG-D-005 DeSoto County Split Sample

Water

Sampled: 07/13/22 11:05

22070613-1

Oil & Grease, EPA 1664A

Sample Receipt Temp. 0.4 °C

Thermometer ID: 258

pH < 2 ✓ Init. nm

Containers:

Kooper
Released By

[Signature]
Received By

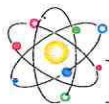
7/13/22 @ 1340
Date

[Signature]
Released By

Ben Melton
Received By

7/13/22 1500
Date

Pgs 2 of 2



Florida Radiochemistry Services, Inc.

Contact: Michael J. Naumann

5456 Hoffner Ave., Suite 201 Orlando, FL 32812

Phone: (407) 382-7733 Fax: (407)382-7744

Certification I. D. # E83033

Work Order #: 2207107

Report Date: 07/27/22

Report to:

Mosaic Fertilizer, LLC.

13830 Circe Crossing Drive

Lithia, FL 33547

Attention: Joshua Lipham / Adriana Rivers

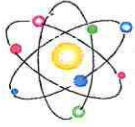
I do hereby affirm that this record contains no willful misrepresentations and that this information given by me is true to the best of my knowledge and belief. I further certify that the methods and quality control measures used to produce these laboratory results were implemented in accordance with the requirements of this laboratory's certification and TNI Standards. The test results in this report relate only to the samples received.

Signed

Michael J. Naumann – President
Shawn M. Naumann – Laboratory Manager

Date

7-27-22



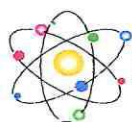
Florida Radiochemistry Services, Inc.

Sample Login

Client:	The Mosaic Company	Date / Time Received	Work order #
		07/19/22 10:40	2207107
Client Contact:	Joshua Lipham/Adriana Rivers		
Project I.D.	Fort Green		
	Outfalls - FTG D-005 Weekly		
Lab Sample I.D.	Client Sample I.D.	Sample Date/Time	Analysis Requested
2207107-01	S207088-01	07/13/22 11:05	Ga, Ra226, Ra228
	MFG-D-005 DeSoto County		Combined Ra226 + Ra228
	Split Sample		

Analysis Results

Gross Alpha	5.4	Combined	
Error +/-	2.3	Ra226 + Ra228	1.1
MDL	1.8	Error +/-	0.6
EPA Method	900.0	MDL	0.7
Prep Date	07/21/22		
Prep Time	09:20		
Analysis Date	07/22/22		
Analysis Time	05:55		
Analyst	MJN		
Radium 226	1.1	Radium 228	0.7U
Error +/-	0.3	Error +/-	0.5
MDL	0.1	MDL	0.7
EPA Method	903.0	EPA Method	Ra-05
Prep Date	07/20/22	Prep Date	07/20/22
Prep Time	08:20	Prep Time	08:20
Analysis Date	07/26/22	Analysis Date	07/25/22
Analysis Time	11:59	Analysis Time	12:43
Analyst	MJN	Analyst	SN
Units	pCi/l	Units	pCi/l



QA Page

Analyte	Sample #	Date Analyzed	Sample Result	Amount Spiked	Spike Result	Spike /Dup Result	Spike % Rec.	Spike Dup % Rpd
Gross Alpha	2207099-01	07/22/22	<1.3	10.0	8.7	8.4	87	3.5
Radium 226	2207090-04	07/26/22	0.6	4.42	4.4	4.9	86	10.8
Radium 228	2207090-04	07/25/22	<0.8	3.22	3.9	3.8	121	2.6

	Quality Control	Limits
	% RPD	% Rec.
Gross Alpha	20.0	70-130
Radium 226	20.0	80-120
Radium 228	20.0	70-130

SUBCONTRACT ORDER
Mosaic Fertilizer, LLC Environmental Laboratory



Fort Green
Outfalls - FTG D-005 Weekly

S207088

SENDING LABORATORY:

Mosaic Fertilizer, LLC Environmental Laboratory
7450 CR 630 Building 1
Mulberry, FL 33865
Phone: 863-428-2764
Project Manager: Joshua Lipham

RECEIVING LABORATORY:

Florida Radiochemistry Service
5456 Hoffner Avenue #201
Orlando, FL 32812-2517
Phone :(407) 382-7733

Sub Lab ID

Sample ID: S207088-01 019005

MFG-D-005 DeSoto County Split Sample

Water

Sampled: 07/13/22 11:05



Radiums combined

Gross-Alpha

Radium 226

Radium 228

Containers:

Released By

J. Coppin

Received By

M. ...

Date

7/19/22 @ 10:40

Released By

Received By

Date