F-1

GWTP SUBGRADE MATERIAL PROPERTIES

PARSONS 742-6

Letter of Transmittal

TO: Tom Davide
SAMCO Technologies, Inc.
160 Wales Ave. P.O. Box 906
Tonawanda, NY 14150-0906

Date: 10/4/02	Job No.: 742577
RE: Richardson Hill Road Landfill Superfund Site	
Groundwater Treatment Plant	

WE ARE SENDING YOU THE FOLLOWING ITEMS:

☐ Shop drawings ☐ Attached ☐ Under separate cover via _____ the following items:
☐ Copy of Letter ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
Dated: _____ ☐ Change Order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
1	10/4/02		GWTP Foundation - Structural Fill
			- Particle Size analyses
			- moisture density

THESE ARE TRANSMITED as checked below:

☐ For approval ☐ For checking ☐ Resubmit ____ copies for approval
☐ For your use ☐ Approved as submitted ☐ Design only, not for construction
☐ For review and comment ☒ Approved as noted ☐ Return _____ corrected prints
☐ For your action ☐ Returned for corrections ☐ _____

REMARKS:

Parsons approves Item 4 (NYSDOT) structural fill as a replacement to Item 2 (NYSDOT) structural fill. Based on NYSDEC Section 304-2.02, the particle size requirements for Items 2 and 4 are similar enough to justify the modification.

NYSDOT 304 Item 4 will be used for the temporary access road, parking areas, truck traffic areas around GWTP and beneath all reinforced concrete slabs.

SIGNED: Matthew D. Millias
Matthew D. Millias, P.E.
Construction Manager

COPY TO: Joseph Bianchi – Amphenol
Richard Galloway – Honeywell

If enclosures are not as noted, please notify us at once.

\\Syrfs01\projects\742577\Tech\transmittal.doc

ATLANTIC TESTING LABORATORIES, Limited

406 North Street
Endicott, NY 13760
(607) 757-9326 (T)
(607) 757-9252 (F)

P. O. Box 29
Canton, NY 13617
(315) 386-4578 (T)
(315) 386-1012 (F)

April 2, 2001

Mr. Robert C. Podrazil
Bainbridge Guilford Central School District
c/o Bearsch Compeau Knudson Architects & Engineers PC
41 Chenango Street
Binghamton, New York 13901-1956

Re: Quality Control Testing
Bainbridge Guilford Central School District
Bainbridge, New York
ATL Report No. ET1392S-1-3-01

Dear Mr. Podrazil;

On March 28, 2001, Mr. J. Friedline obtained one sample (Sample #1, Tag #13921) of NYSDOT Type 4 gravel material from Waste Recovery, Inc's. Sidney, NY, pit, and returned it to our Endicott, New York facility for laboratory testing. A Particle Size Analysis and Laboratory Compaction Test were performed on the sample. The Laboratory Compaction Test Report is attached. The Particle Size Analysis test results follow:

PARTICLE SIZE ANALYSIS (WASH)
ASTM D 422 (WITHOUT HYDROMETER)

SIEVE SIZE	PERCENT PASSING BY WEIGHT	
	SAMPLE #1, TAG #13921	PROJECT SPECIFICATION
2"	100.	
1-1/2"	99	
1"	91	
3/4"	85	
1/2"	77	
3/8"	71	
1/4"	63	
#4	58	
#10	40	
#20	27	
#40	17	
#80	10	
#100	9	
#200	6.2	

Please feel free to contact our office should you have any questions or require any further information.

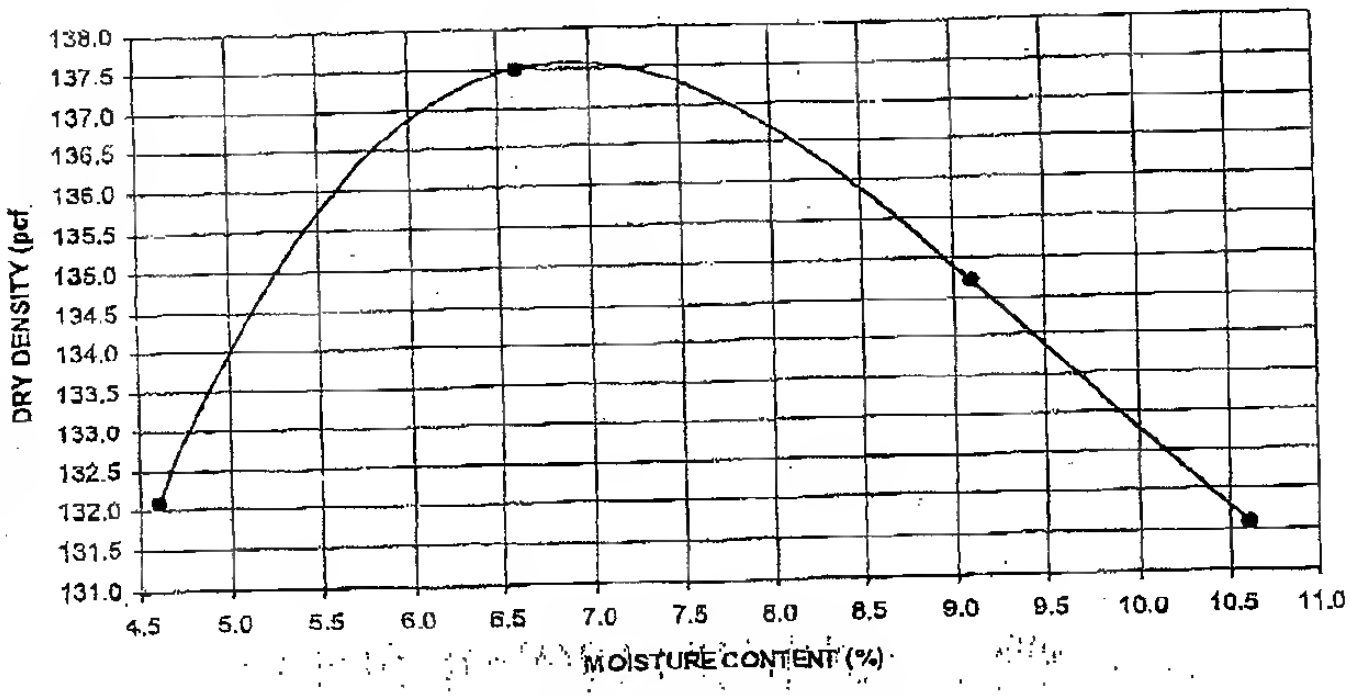
Respectfully submitted,
ATLANTIC TESTING LABORATORIES, Limited

Mark S. Wilbur, Manager
Endicott Testing Division

MSW/cb
Attachment

ATLANTIC TESTING LABORATORIES, Limited

MOISTURE-DENSITY RELATIONSHIP CURVE



"Modified" Effort, ASTM D1557-91 Procedure C

ELEV./ DEPTH	CLASSIFICATION USCS	CLASSIFICATION AASHTO	NAT. MOIST.	SP. G.	LL	PI	% > NO. 4	% < NO.200
			5.2				42	6.2

TEST RESULTS	
Corrected Optimum Moisture = 6.5 %	
Corrected Maximum Dry Density = 140.5 pcf	
Pc = 11.81	Wc = 2.3
Pf = 88.19	Wf = 6.9
Splitting Sieve Size: 3/4 inch	

MATERIAL DESCRIPTION
NYSDOT Type 4 gravel
SOIL CLASSIFICATION
Brown cmf SAND; and cmf GRAVEL; trace SILT/CLAY

Project No.: ET1392S-1-3-01
Project: Bainbridge Guilford Central School District
Client: Bainbridge Guilford Central School District
Sample Supplier: Waste Recovery, Inc., Sidney, NY pit
Date: April 2, 2001

Remarks:
- Collected by J. Friedline, on March 28, 2001
- Sample # 1 Tag # 13921
- Manual Rammer; Moist Preparation

Any work by the Contractor required for the maintenance or repair of bituminous stabilized course prior to acceptance of the contract, shall be done at the Contractor's expense.

Payment will be made under:

Item No.	Item	Pay Unit
302.01 M	Bituminous Stabilized Course	Cubic Meter

SECTION 303 - OPTIONAL FLEXIBLE SHOULDER

303-1 DESCRIPTION. The work shall consist of furnishing and placing flexible shoulders where shown on the plans or where directed by the Engineer. The Contractor shall have the option of selecting from five (5) alternative flexible shoulder systems.

303-2 MATERIALS. Materials which shall be used and individual component course thickness are specified in the table below for the five (5) options:

TABLE 303-1

	THICKNESS OF COURSES (millimeters)				
MATERIAL	OPTION 1	OPTION 2	OPTION 3	OPTION 4	OPTION 5
Asphalt Concrete Type 6, (Type 7 if Indicated on Plans) §401-2	25	25	25	75	-
Bituminous Stabilized Course §302-2 (opt A or C)	75	-	-	-	-
Asphalt Concrete Type 3, Binder Course, §401-2	-	-	50	-	75
Asphalt Concrete Type 1, Base Course, §401-2	-	75	-	-	-
Subbase Course §304-2	-	-	25	25	25

Where the adjacent pavement is asphalt concrete and the new overlay surface course is 40 mm thick, then the thickness of the surface course of the shoulder may be increased to 40 mm and the course of Bituminous Stabilized Course (option 1), Type 1 Base Course (option 2), or Type 3 Binder Course (option 3) may be decreased by 15 mm.

Material requirements and quality control methods pertaining to this work shall be as required under Sections 302, 304, and 401 in conformance with the procedures contained in appropriate Department publications in effect on the date of advertisement for bids.

303-3 CONSTRUCTION DETAILS. The construction details shall be the same as those in Sections 302-3, 304-3 and 401-3. Under options 3, 4 & 5, the Subbase Course material shall be placed at the same time as the underlying Subbase Course. For option 5, vibratory compaction equipment appearing on the current "Approved List - Bituminous Concrete Vibratory Compaction Equipment" shall be required if the entire 75 mm lift of asphalt concrete Type 3 is to be placed as a single lift. For option 4, the asphalt concrete shall be placed in two lifts.

303-4 METHOD OF MEASUREMENT. The quantity of Optional Flexible Shoulder shall be the number of square meters of satisfactorily completed shoulder computed from the payment lines on the plan or from revised payment lines established in writing by the Engineer.

303-5 BASIS OF PAYMENT. The unit price bid for this work shall include the cost of furnishing all labor, material and equipment necessary to complete the work.

When an asphalt concrete material is placed in one operation in both the shoulder and pavement area, a deduction from the weight delivered shall be made for the asphalt concrete placed in the shoulder. The quantity to be deducted will be determined by multiplying the computed volume of such material placed in the shoulder within the payment lines times a factor of 2.25 metric tons/cubic meter.

Payment will not be made for losses of material resulting from compaction, foundation settlement, erosion, or any other causes. The cost of such losses shall be included in the price bid for this item.

If the Contractor elects to use options 3, 4 or 5, the cost of the additional 25 mm of subbase course material necessary to bring the section to grade shall be included in the price bid for this item.

If there is an asphalt price adjustment provision in the contract, the adjustment to be made shall be computed assuming a conversion factor of one hundredth (0.01) of a metric ton of asphalt per square meter of Optional Flexible Shoulder.

Payment will be made under:

Item No.	Item	Pay Unit
303.01 M	Optional Flexible Shoulder	Square Meter

SECTION 304 - SUBBASE COURSE

304-1 DESCRIPTION

304-1.01 General. The work shall consist of furnishing, placing and compacting a subbase course in conformity with the lines, grades, thicknesses and typical sections shown on the plans, or as determined by field conditions and ordered in writing by the Engineer.

304-1.02 Optional Types. Unless otherwise stated in the plans or in the proposal, the Contractor may elect any of the three (3) options as follows:

Option A. Subbase construction consisting of two (2) separate layers of Type 4 and Type 3 Subbase Course.

Option B. Subbase construction consisting of a single layer of Type 1 Subbase Course.

Option C. Subbase construction consisting of a single layer of Type 2 Subbase Course.

304-2 MATERIALS

304-2.01 Test and Control Methods. Materials tests and quality control methods pertaining to the work of this section will be performed in conformance with the procedures contained in the appropriate Departmental publications which are current on the date of advertisement for bids. These publications are available upon request to the Regional Director or the Director, Geotechnical Engineering Bureau.

304-2.02 Materials Requirements. Materials furnished for Types 1, 3 and 4 shall consist of approved Blast Furnace Slag, Stone, Sand and Gravel or blends of these materials with not more than 30 percent be weight of Waste Glass. Material furnished for Type 2 shall consist of approved Blast Furnace Slag or of Stone which is the product of crushing ledge rock or a blend of Blast Furnace Slag or of Stone with not more than 30 percent by weight of Waste Glass. Waste Glass blended with other materials shall conform with §203-2.02, paragraph F. All materials furnished shall be well graded from coarse to fine and free from organic or other deleterious materials.

It shall be the Contractor's responsibility to provide a material which meets this specification and is within the Contractor's capabilities to fine grade to the required tolerances. Should the subbase course become unstable at any time prior to the placement of the overlying course due to the gradation of the material furnished, the Contractor shall, at its own expense, correct the unstable condition to the satisfaction of the Engineer.

A. Gradation

Type 1 Sieve Size Designation	Percent Passing By Weight
75 mm	100
50 mm	90 - 100
6.3 mm	30 - 65
425 m	5 - 40
75 m	0 - 10

Type 3 Sieve Size Designation	Percent Passing By Weight
100 mm	100
6.3 mm	30 - 75
425 m	5 - 40
75 m	0 - 10

Type 2 Sieve Size Designation	Percent Passing By Weight
50 mm	100
6.3 mm	25 - 60
425 m	5 - 40
75 m	0 - 10

Type 4 Sieve Size Designation	Percent Passing By Weight
50 mm	100
6.3 mm	30 - 65
425 m	5 - 40
75 m	0 - 10

B. Soundness. Material for Types 1, 2, and 4 will be accepted on the basis of a Magnesium Sulfate Soundness Loss after 4 cycles of 20 percent or less. Material for Type 3 will be accepted on the basis of a Magnesium Sulfate Soundness Loss after 4 cycles of 30 percent or less.

C. Plasticity Index. The Plasticity Index of the material passing the 425 m mesh sieve shall not exceed 5.0.

D. Elongated Particles. Not more than 30 percent, by weight, of the particles retained on a 12.5 mm sieve shall consist of flat or elongated particles. A flat or elongated particle is defined herein as one which has its greatest dimension more than 3 times its least dimension. Acceptance for this requirement will normally be based on a visual inspection by the Engineer. When the State elects to test for this requirement, material with a percentage greater than 30 will be rejected.

All material shall meet the specified gradation prior to placement on the grade. All processing shall be completed at the source.

304-2.03 Stockpiling. All material shall be stockpiled. Material furnished under Type 3 will not be required to be stockpiled if the total project quantity is more than 400 m^3, unless otherwise stated on the plans. Stockpile construction requirements, sampling, testing and acceptance/rejection procedures shall be as stipulated in the appropriate Departmental publication.

Material used as a subbase for the construction of temporary work may be approved by the Departmental Geotechnical Engineer by visual inspection in accordance with the procedure in the current Departmental publication. Material so approved shall not be incorporated into the final project without following the appropriate acceptance procedure for the item of intended use.

304-3 CONSTRUCTION DETAILS

304-3.01 Placing.

A. The upper course material shall be placed on the grade, in a manner to minimize segregation, using equipment and procedures approved by the Engineer. Uncontrolled spreading from piles dumped on the grade resulting in segregation will not be permitted. This course shall not be placed in excess of 150 m without being compacted.

B. The maximum layer thickness shall be 380 mm compacted, or as shown on the plans. The loose lift thickness shall be a minimum of 1.5 times the maximum particle size. In confined areas as defined by the Engineer the maximum compacted layer thickness shall be 150 mm.

C. Type 1 shall be placed with a minimum compacted layer thickness of 150 mm.

D. Type 3 material shall not be placed within 100 mm of the bottom of a pavement course, unless specifically shown on the plans.

E. Materials blended with Waste Glass shall not be placed in contact with synthetic liners, geogrids or geotextiles. Waste Glass incorporated into subbase shall meet the requirements of §203-202,F, and shall be thoroughly mixed so that Waste Glass constitutes no more than 30 percent by weight anywhere in the subbase.

304-3.02 Compaction. When the moisture content is within the limits for proper compaction, the material shall be compacted in accordance with the requirements of §203-3.12, Compaction. Density tests are not required for the acceptance of these courses.

When a subbase course has been placed, but subsequent paving operations have been delayed so that the subbase has been disturbed by frost action, the Contractor shall recompact the subbase where directed by the Engineer.

304-3.03 Traffic and Contamination. The movement of highway traffic over the final surface of the subbase may be permitted at locations designated by, and under such restrictions as ordered by the Engineer, provided such movements take place prior to the final finishing of this course to the specified tolerance. The movement of construction equipment on this course may be permitted, at locations designated by and under such restrictions, as ordered by the Engineer. At locations where permission is granted for such movement, the temporary surface of the course, upon which the construction traffic is running, shall be placed and maintained at least 50 mm above the final surface of the course. Just prior to paving and after all construction traffic, not required for the removal, has ceased, the 50 mm protective layer shall be removed, and the exposed surface of the course prepared and compacted to the specified tolerance. No payment will be made for furnishing, placing, maintaining, removing and disposing of the 50 mm thick protective layer; the cost thereof shall be included in the price bid for Subbase Course.

Should the subbase become mixed with the subgrade or any other material, through any cause whatsoever, the Contractor shall, at its own expense, remove such mixture and replace it with the appropriate subbase material.

304-3.04 Tolerance. After compaction, the top surface of the course of Types 1, 2 or 4 shall not extend more than 6 mm above nor more than 6 mm below true grade for the course at any location. The finished surface of the Type 3 course shall not extend above the true grade and surface for this course at any location.

304-3.05 Optional Type. At least fourteen (14) calendar days prior to performing the work, the Contractor shall notify the Engineer in writing which of the options are chosen. If the Contractor proposes to use more than one option, the Contractor shall describe fully in the notification to the Engineer where each option is being proposed. The State reserves the right to disapprove the use of more than one option on a project.

304-4 METHOD OF MEASUREMENT

304-4.01 Subbase Course. The quantity shall be the number of cubic meters of material, computed from payment lines shown on the plans or, where changes have been ordered, from payment lines established by the Engineer.

F-10

GWTP CONTROL SYSTEM SITE ACCEPTANCE TEST

PARSONS

TO: Joseph Bianchi – Amphenol Corporation 40 to 60 Delaware Avenue Sidney, New York	Letter of Transmittal Date: 8/31/07 | Job No.: 752477 Richardson Hill Road Landfill Site Sidney, New York Re: SAMCO Control System Site Acceptance Test

WE ARE SENDING YOU THE FOLLOWING ITEMS:

❑ Shop drawings	❑ Attached	❑Under separate cover via _____ the following items:		
❑ Copy of Letter	❑ Prints	❑ Plans	❑ Samples	❑ Specifications
☒ Reviewed Submittal		❑ _____		

No. Copies	Description
1	SAMCO Control System Site Acceptance Test (Report dated May 2003; Cover signed May 2007)

Comments:

1. Several tests not completed in May 2003, primarily due to equipment not having been installed at that time. See attached table for Update / Spot Checks completed in August 2007 by OMI / Parsons.

CONTRACTOR SUBMITTAL REVIEW

Reviewed – No Comments _____ ❑
Comments as Noted _____ ☒
Revise & Resubmit _____ ❑
Not Subject to Review _____ ❑

Action taken hereon does not supersede requirements of applicable design drawings, specifications, orders, codes or regulations, or relieve the Contractor or Supplier from responsibility for errors and omissions. This review does not relieve Contractor of any responsibility for the completeness or correctness of detail or accuracy of any drawings or specifications; nor does this review represent any liability therefore on the part of Amphenol.

By Jeff N. Schutt Date 8/31/07

Richardson Hill Road Landfill GWTS Site Acceptance Test 2007 Update / Spot Check

Section	Page #	Item	Desired Verification Action by OMI	Result
2	5	TIT-401	Verify display on PanelView/OIT	Verified through Supervisory Control and Data Automation (SCADA) system on 8/24/07 that signal is received and displayed on screen for TIT-401, PIT-301, PIT-221, FQI-721, and FQI-415.
	5	PIT-301		
	6	PIT-221		
	8	FQI-721		
	13	FQI-415		
	6	PIT-221	Confirm (from experience) or verify signal received from pressure transducer	Verified through SCADA on 8/24/07 that signals from the pressure transducers are received.
	7	PIT-231		
	20	2,8,12 P3 run	Determine if IIS still faults	Verified on 8/24/07 that HS no longer faults: Switching HS to HAND displays as an event but does not trigger an alarm.
	21	2,9,11 P1 run		
	22	2,11,10 generator	Normal state @ MMI OK? Trans state @ PLC OK? Trans. State @ MMI OK?	Verified on 8/24/07 that generator status display at automatic transfer switch (ATS). Confirmed from experience that when generator goes into operation, ATS displays power. Battery charging panel shows charging.
		2,11,11 generator		
		2,11,12 generator		
3	43	Generator	Confirm (from experience) or verify	
4	44	Generator low fuel	Confirm (from experience)	Confirmed from experience that low fuel emits audible alarm at ATS which can be heard inside building.
	45	High building sump level	Confirm (from experience) shuts down P-RW-1 etc and P-S-1 etc.	Confirmed from experience that high building sump level shuts down recovery well (P-RW-1, etc.) and sump (P-S-1) pumps. Plant goes into idle mode.
	45	High T-1 level	Confirm (from experience) shuts down P-RW-1 etc and P-S-1 etc.	Verification test on 8/29/07 – high high level shuts down recovery well and sump pumps.

Richardson Hill Road Landfill GWTS Site Acceptance Test 2007 Update / Spot Check

Section	Page #	Item	Desired Verification Action by OMI	Result
5	50-57	(Question)	Has code been added?	Unknown whether code was added. Is not critical to operation (see result for next item).
	51	CP1	Confirm (from experience) or verify 4th - 6th lines from top of page 51	Confirmation testing of CP-7 on 8/24/07: Changing switch does not show up as an event on the SCADA terminal. It appears code was not added. OMI operator does not deem this critical; OMI performs manual inspections daily to check levels, see what is running and in what mode, etc.
	51	FCV-412	Confirm (from experience) or verify 4th - 6th lines from bottom of page 51	Verified on 8/24/07 - displays on screen and triggers event. Note this had been tested during SAT and is therefore consistent with earlier test results.
6	58-59	Any of these items	Please confirm/verify data is logged to a historical file through the operator interface terminal or panelview for five of these items.	Many if not all items on pgs. 58-59 are logged to historical data files. This information is summoned for monthly reports. Seven categories of historical data files are logged/maintained: 1) T-1 tank data; 2) recovery well flows; 3) treatment pH; 4) system flow rate; 5) recovery well elevations; 6) sump levels; and 7) collection sump flow rates.
8	65	(Question)	Is remote monitoring set up?	Remote monitoring capability exists for operators on home PC's.

"Confirm": If known from operation/system experience, then so indicate.
"Verify": Perform check to verify if not known from operation/system experience.

Schoenberg, Ted

From: Robert.Lamb@CH2M.com
Sent: Friday, August 31, 2007 8:27 AM
To: Schoenberg, Ted
Subject: RE: Site Acceptance Test Verification List

Ted,
SAT list looks good. If there is anything else needed feel free to call on me.

RICHARDSON HILL ROAD LANDFILL
GROUNDWATER TREATMENT SYSTEM
CONTROL SYSTEM SITE ACCEPTANCE TEST

Prepared by:
SAMCO Technologies
160 Wales Avenue
Tonawanda, NY 14150
(716) 743-9000
May 2003

THE SYSTEM HAS BEEN TESTED IN ACCORDANCE WITH THE GUIDELINES IN THIS SITE ACCEPTANCE TEST AND MEETS ALL THE FUNCTIONAL REQUIREMENTS REQUIRED FOR SYSTEM OPERATION.

Parsons: _____

SAMCO: _____ MATTHEW BURGER - ENG MGR

TAC: _____

O'Loughlin, James

Subject: FW: RHRL - Final Closure Report - Site Acceptance Test
Attachments: 07-0522 Control Syst Accept Cover.pdf

From: Baker, Scott [mailto:bakers@samcotech.com]
Sent: Tuesday, May 22, 2007 4:01 PM
To: O'Loughlin, James
Subject: RE: RHRL - Final Closure Report - Site Acceptance Test

Jim,

Attached is the signed cover sheet for the Control System Acceptance by our engineering manager, Matt Burger. The Word version of O&M a bit more difficult but workable. We have each chapter as a separate document. I can either send multiple files or spend time compiling to one. Your choice.

Let me know.

Best regards,

SAMCO *Technologies, Inc.*
Scott Baker
Vice President-Operations
160 Wales Avenue, PO Box 906
Tonawanda, NY 14150

716-743-9000, ext 228 Fax: 716-743-1220
www.samcotech.com - Please visit our website.

"...to create better quality of life by purifying water"©. Purify • Conserve • Recycle©

CONFIDENTIALITY NOTICE: This communication, including any attachments, contains confidential and proprietary information which is intended solely for use by the individual or entity to which it is addressed. The disclosure, distribution, printing, copying or any use, other than the purpose for which it is intended, of all or any part of this information is strictly prohibited without the express written consent of SAMCO Technologies, Inc.. Personal views and opinions which may be contained in this communication are those of the originator and do not necessarily represent those of SAMCO Technologies, Inc., which is not liable for alleged damages caused by use of or reliance on the information contained herein. If you believe that you received this information in error, please notify the sender for appropriate disposition.

From: O'Loughlin, James [mailto:James.O'Loughlin@parsons.com]
Sent: Friday, May 18, 2007 12:25 PM
To: Baker, Scott
Cc: Bianchi Joseph M.; Galloway, Rich
Subject: RHRL - Final Closure Report - Site Acceptance Test

Scott,

<<F-10 GWTP Control Sys.pdf>>
We are addressing comments on the final closure report. EPA has requested that the cover of the site acceptance report be signed by SAMCO. Would you mind confirming that this is the final version, signing the cover, and sending back? A pdf is fine.

Thanks,

Jim

RICHARDSON HILL ROAD LANDFILL WWTS
SITE ACCEPTANCE TEST

Table of Contents

System Communications Testing....3
I/O Testing....5
PLC Functional Testing....25
System Alarm Testing....44
System Event Log Testing....50
System Trend Testing....58
System Security Testing....60
System Remote Monitoring Testing....65

1. System Communications Testing
    a. ControlNet Network Hardware
        i. Verify the node equipment for the server network is connected to channel A, ControlNet Interface (CNI) cards are powered and registering status OK.

Device	CNI location (Rack, slot)	Status	Verified by / Date
Server	N/A	ACTIVE	MJB 5/6/03
PLC	1, 0	ACTIVE	↓
Panelview	N/A	ACTIVE	↓

Notes:

        ii. Verify the node equipment for the I/O network is connected to channel A, ControlNet Interface (CNI) cards are powered and registering status OK.

Device	CNI location (Rack, slot)	Status	Verified by / Date
I/O Rack 1	1, 3	ACTIVE	MJB 5/6/03
I/O Rack 2	2, 0	ACTIVE	↓
I/O Rack 3	3, 0	ACTIVE	↓

Notes:

    b. System Communications
        i. Using the RSLinx communications driver, verify all control hardware is shown as connected and communicating with the network.

Device	Location (Rack, slot)	Status	Verified by / Date
Server CNI	1, 0	ACTIVE	MJB 5/6/03
PLC	1, 1&2	RUN	↓
Rack 1 CNI	1, 3	ACTIVE	↓
AI1	1, 4	OK	↓
AI2	1, 5	OK	↓
Rack 2 CNI	2, 0	ACTIVE	↓
AO1	2, 1	OK	↓
AO2	2, 2	OK	↓
DI1	2, 3	OK	↓
DI1	2, 4	OK	↓
DI1	2, 5	OK	↓
DI1	2, 6	OK	↓
DI1	2, 7	OK	↓
DI1	2, 8	OK	↓

Device	Location (Rack, slot)	Status	Verified by / Date
DI1	2, 9	OK	MJB 5/6/03
DI1	2, 10	OK	
DI1	2, 11	OK	
Rack 3 CNI	3, 0	ACTIVE	
DO1	3, 1	OK	
DO1	3, 2	OK	
DO1	3, 3	OK	
DO1	3, 4	OK	
DO1	3, 5	OK	
DO1	3, 6	OK	
DO1	3, 7	OK	
DO1	3, 8	OK	
Server	N/A	RUNNING NODE 24	
Panelview	N/A	IDENTIFIED NODE 13	

Notes:

2. I/O Testing
    a. Analog Input Testing
        i. Verify 4-20 mA signal for field devices is received at the correct PLC address, correlates with the display on the field device, is scaled/displayed to the correct engineering units, and registers on the Panelview. If a device is not installed, use a mA generator to simulate the signal.

I/O Point (Rack, slot, point)	1, 4, 0
Device	Eq Temperature T1T-401
Signal Received?	y
Correlate to field display?	y
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	y (SP: 0)
Adjustable 20 mA setpoint?	y (SP: 120)
Verified by / Date	MJB 5/6/03
Notes *	PV NOT ON LINE TO VERIFY (TYPICAL OF ALL READINGS)

I/O Point (Rack, slot, point)	1, 4, 1
Device	Sump 1 level P1T-301
Signal Received?	* *
Correlate to field display?	* *
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	y (SP: 0)
Adjustable 20 mA setpoint?	y (SP: 30)
Verified by / Date	MJB 5/6/03
Notes * PV NOT ON LINE TO VERIFY ** LT NOT INSTALLED, USED CURRENT GENERATOR TO VERIFY SIGNAL AT INPUT	

I/O Point (Rack, slot, point)	1, 4, 2
Device	Sump 2 level PIT-321
Signal Received?	* *
Correlate to field display?	* *
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	y (SP: 0)
Adjustable 20 mA setpoint?	y (SP: 30)
Verified by / Date	5/6/03
Notes	SEE 1, 4, 1

I/O Point (Rack, slot, point)	1, 4, 3
Device	Sump 3 level PIT-331
Signal Received?	* *
Correlate to field display?	* *
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	y (SP: 0)
Adjustable 20 mA setpoint?	y (SP: 30)
Verified by / Date	MJB 5/6/03
Notes	SEE 1, 4, 1

I/O Point (Rack, slot, point)	1, 4, 4
Device	Well 1 level PIT-201
Signal Received?	* * *
Correlate to field display?	* * *
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	y (SP = 0)
Adjustable 20 mA setpoint?	y (SP: 30)
Verified by / Date	MJB 5/6/03
Notes *** SEEMING PROBLEM WITH GENERATOR TO VERIFY	PRESSURE TRANSDUCER, USED CURRENT SIGNAL

I/O Point (Rack, slot, point)	1, 4, 5
Device	Well 2 level PIT-221
Signal Received?	* * *
Correlate to field display?	* * *
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	y (SP: 0)
Adjustable 20 mA setpoint?	y (SP=30)
Verified by / Date	MJB 5/6/03
Notes	SEE 1, 4, 4

I/O Point (Rack, slot, point)	1, 4, 6
Device	Well 3 level PIT-231
Signal Received?	* * *
Correlate to field display?	* * *
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	Y (SP = 0)
Adjustable 20 mA setpoint?	Y (SP = 30)
Verified by / Date	MJB 5/6/03
Notes	SEE 1, 4, Y

I/O Point (Rack, slot, point)	1, 4, 7
Device	Well 4 level PIT-241
Signal Received?	* * *
Correlate to field display?	* * *
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	Y (SP = 0)
Adjustable 20 mA setpoint?	Y (SP = 30)
Verified by / Date	MJB 5/6/03
Notes	SEE 1, 4, Y

I/O Point (Rack, slot, point)	1, 4, 8
Device	Effluent pH AIC-724
Signal Received?	Y
Correlate to field display?	Y
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	Y (SP = 0)
Adjustable 20 mA setpoint?	Y (SP = 14)
Verified by / Date	MJB 5/6/03
Notes	SEE 1, 4, 0

I/O Point (Rack, slot, point)	1, 4, 9 FQI
Device	Effluent Flowrate LIT-721
Signal Received?	y
Correlate to field display?	****
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	y (SP = 0)
Adjustable 20 mA setpoint?	y (SP = 120)
Verified by / Date	MJB 5/6/03
Notes **** EFFLUENT FLOW NOT RUNNING, ADJUST 4-20 mA RANGE TO MAKE CORRELATE WHEN RUNNING	

I/O Point (Rack, slot, point)	1, 4, 10
Device	MX-9 current draw
Signal Received?	y
Correlate to field display?	y
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	y (SP = 0)
Adjustable 20 mA setpoint?	y (SP = 4.9)
Verified by / Date	MJB 5/6/03
Notes	SEE 1,4,0

I/O Point (Rack, slot, point)	1, 4, 11
Device	Sludge Tank level LIT-640
Signal Received?	y
Correlate to field display?	y
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	y (SP = 0)
Adjustable 20 mA setpoint?	y (SP = 264)
Verified by / Date	MJB 5/6/03
Notes	SEE 1,4,0 20 mA SETPOINT WAS ADJUSTED TO CORRELATE TO FIELD DISPLAY

I/O Point (Rack, slot, point)	1, 4, 12
Device	Clearwell level LIT-601
Signal Received?	y
Correlate to field display?	y
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	y (SP: 0)
Adjustable 20 mA setpoint?	y (SP: 75)
Verified by / Date	MJB 5/6/03
Notes	SEE 1,7,0

I/O Point (Rack, slot, point)	1, 4, 13
Device	PAC tank level LIT-540
Signal Received?	y
Correlate to field display?	y
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	y (SP: 0)
Adjustable 20 mA setpoint?	y (SP: 108")
Verified by / Date	MJB 5/6/03
Notes	SEE 1,7,0

I/O Point (Rack, slot, point)	1, 4, 14
Device	Caustic Tank level LIT-470
Signal Received?	y
Correlate to field display?	y
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	y (SP: 0)
Adjustable 20 mA setpoint?	y (SP: 198)
Verified by / Date	MJB 5/6/03
Notes	SEE 1,7,0

I/O Point (Rack, slot, point)	1, 4, 15
Device	Sump line pH AI-404
Signal Received?	y
Correlate to field display?	y
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	y (SP=0)
Adjustable 20 mA setpoint?	y (SP=14)
Verified by / Date	MJB 5/6/03
Notes	SEE 1, 4, 0

I/O Point (Rack, slot, point)	1, 5, 0
Device	Well line pH AI-405
Signal Received?	y
Correlate to field display?	y
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	y (SP=0)
Adjustable 20 mA setpoint?	y (SP=14)
Verified by / Date	MJB 5/6/03
Notes	SEE 1, 4, 0

I/O Point (Rack, slot, point)	1, 5, 1
Device	EQ level LIT-402
Signal Received?	y
Correlate to field display?	y
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	y (SP=0)
Adjustable 20 mA setpoint?	y (SP=354)
Verified by / Date	MJB 5/6/03
Notes	SEE 1, 4, 0

I/O Point (Rack, slot, point)	1, 5, 2
Device	Sump 1 flowrate FQI-303
Signal Received?	**
Correlate to field display?	**
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	Y (SP=0)
Adjustable 20 mA setpoint?	Y (SP=100)
Verified by / Date	MJB 5/6/03)
Notes	SEE 1,4,1

I/O Point (Rack, slot, point)	1, 5, 3
Device	Sump 2 flowrate FQI-323
Signal Received?	**
Correlate to field display?	**
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	Y (SP=0)
Adjustable 20 mA setpoint?	Y (SP=100)
Verified by / Date	MJB 5/6/03
Notes	SEE 1,4,1

I/O Point (Rack, slot, point)	1, 5, 4
Device	Sump 3 flowrate
Signal Received?	**
Correlate to field display?	**
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	Y (SP=0)
Adjustable 20 mA setpoint?	Y (SP=100)
Verified by / Date	MJB 5/6/03
Notes	SEE 1,4,1

I/O Point (Rack, slot, point)	1, 5, 5
Device	Well 1 flowrate FQI-203
Signal Received?	y
Correlate to field display?	y
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	y (SP = 0)
Adjustable 20 mA setpoint?	y (SP = 10)
Verified by / Date	JB 5/21/03
Notes	SEE 1, 4, D

I/O Point (Rack, slot, point)	1, 5, 6
Device	Well 2 flowrate FQI-223
Signal Received?	y
Correlate to field display?	y
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	y (SP = 0)
Adjustable 20 mA setpoint?	y (SP = 10)
Verified by / Date	JB 5/21/03
Notes	SEE 1, 4, D

I/O Point (Rack, slot, point)	1, 5, 7
Device	Well 3 flowrate FQI-333
Signal Received?	y
Correlate to field display?	y
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	y (SP = 0)
Adjustable 20 mA setpoint?	y (SP = 10)
Verified by / Date	JB 5/21/03
Notes	SEE 1, 4, D

I/O Point (Rack, slot, point)	1, 5, 8
Device	Well 4 flowrate FQI-243
Signal Received?	y
Correlate to field display?	y
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	y (SP: 0)
Adjustable 20 mA setpoint?	y (SP: 10)
Verified by / Date	JB 5/21/03
Notes	SEE 1, 4, D

I/O Point (Rack, slot, point)	1, 5, 9
Device	PAC tank pH AIC-503
Signal Received?	y
Correlate to field display?	y
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	y (SP: 0)
Adjustable 20 mA setpoint?	y (SP: 14)
Verified by / Date	MJB 5/6/03
Notes	SEE 1, 4, D

I/O Point (Rack, slot, point)	1, 5, 10
Device	Feed flowrate F1QT-415
Signal Received?	y
Correlate to field display?	y
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	y (SP: 0)
Adjustable 20 mA setpoint?	y (SP: 120)
Verified by / Date	MJB 5/6/03
Notes	SEE 1, 4, D

I/O Point (Rack, slot, point)	1, 5, 11
Device	OWS Acid cracking chamber pH AIC-420
Signal Received?	Y
Correlate to field display?	Y
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	Y (SP= 0)
Adjustable 20 mA setpoint?	Y (SP= 14)
Verified by / Date	MJB 5/6/03
Notes	SEE 1,4,1

I/O Point (Rack, slot, point)	1, 5, 12
Device	OWS pH Adjust chamber pH AIC-423
Signal Received?	Y
Correlate to field display?	Y
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	Y (SP: 0)
Adjustable 20 mA setpoint?	Y (SP: 14)
Verified by / Date	MJB 5/6/03
Notes	SEE 1,4,1

I/O Point (Rack, slot, point)	1, 5, 13
Device	Acid tote level LIT-460
Signal Received?	Y
Correlate to field display?	Y
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	Y (SP=0)
Adjustable 20 mA setpoint?	Y (SP =34)
Verified by / Date	MJB 5/6/03
Notes	SEE 1,4,1

I/O Point (Rack, slot, point)	1, 5, 14
Device	Polymer totc level LIT-550
Signal Received?	Y
Correlate to field display?	Y
Displayed correctly on Panelview?	*
Adjustable 4 mA setpoint?	Y (SP: 0)
Adjustable 20 mA setpoint?	Y (SP: 39)
Verified by / Date	MJB 5/6/03
Notes	SEE 1,4,1

b. Analog Output Testing

i. Stroke analog output devices from the PLC and verify output device position or speed correlates with PLC output.

I/O Point (Rack, slot, point)	2, 1, 0
Device	CP-3 pace
Signal Received at device?	Y
Device position/speed correlate to output?	Y
Displayed correctly on Server?	Y
Maximum output set	No
Minimum output set	No
Verified by / Date	MJB 5/7/03
Notes	

I/O Point (Rack, slot, point)	2, 1, 1
Device	Feed control valve FCV-412 position
Signal Received at device?	Y
Device position/speed correlate to output?	Y
Displayed correctly on Server?	Y
Maximum output set	ADJUSTABLE ON SERVER
Minimum output set	11
Verified by / Date	MJB 5/7/03
Notes	

I/O Point (Rack, slot, point)	2, 1, 2
Device	Filter control valve FCV-605 position
Signal Received at device?	Y
Device position/speed correlate to output?	Y
Displayed correctly on Server?	Y
Maximum output set	ADJUSTABLE ON SERVER
Minimum output set	"
Verified by / Date	MJB 5/7/03
Notes	

I/O Point (Rack, slot, point)	2, 1, 3
Device	Polyblend PB-1 pace
Signal Received at device?	Y
Device position/speed correlate to output?	Y
Displayed correctly on Server?	Y
Maximum output set	NO
Minimum output set	NO
Verified by / Date	MJB 5/7/03
Notes	

I/O Point (Rack, slot, point)	2, 1, 4
Device	Polyblend PB-2 pace
Signal Received at device?	Y
Device position/speed correlate to output?	Y
Displayed correctly on Server?	Y
Maximum output set	NO
Minimum output set	NO
Verified by / Date	MJB 5/7/03
Notes	

c. Digital Input Testing
   i. Verify normal state of input at PLC and that the display shows correctly on the Plantscape MMI display. Transition input and verify transition at PLC and MMI display.

Point (Rack, slot, point)	Device	Normal state @ PLC OK?	Normal state @ MMI OK?	Trans. State @ PLC OK?	Trans. State @ MMI OK?	Verified by / Date
2,3,0	LCP-RW Estop	NO	✓	✓	✓	MJB 5/7/03
2,3,1	P-RW1 in auto	NO	✓	✓	✓	
2,3,2	P-RW1 in hand	NO	✓	✓	✓	
2,3,3	P-RW2 in auto	NO	✓	✓	✓	
2,3,4	P-RW2 in hand	NO	✓	✓	✓	
2,3,5	P-RW3 in auto	NO	✓	✓	✓	
2,3,6	P-RW3 in hand	NO	✓	✓	✓	
2,3,7	P-RW4 in auto	NO	✓	✓	✓	
2,3,8	P-RW4 in hand	NO	✓	✓	✓	
2,3,9	P-RW1 running	NO	✓	✓	✓	
2,3,10	P-RW2 running	NO	✓	✓	✓	
2,3,11	P-RW3 running	NO	✓	✓	✓	
2,3,12	P-RW4 running	NO	✓	✓	✓	
2,3,13	P-RW1 overload	NO	✓	✓	✓	
2,3,14	P-RW2 overload	NO	✓	✓	✓	
2,3,15	P-RW3 overload	NO	✓	✓	✓	
2,4,0	P-RW4 overload	NO	✓	✓	✓	
2,4,1	FS-502	NO	✓	✓	✓	
2,4,2	CPS-1 running	NO	✓	✓	✓	
2,4,3	CPS-2 running	NO	✓	✓	✓	
2,4,4	CPS-3 running	NO	✓	✓	✓	
2,4,5	LSL-340	NO	✓	✓	✓	

Point (Rack, slot, point)	Device	Normal state @ PLC OK?	Normal state @ MMI OK?	Trans. State @ PLC OK?	Trans. State @ MMI OK?	Verified by / Date
2,4,6	OWS Estop	NO	✓	✓	✓	MJB 5/7/03
2,4,7	MX2 in ON	NO	✓	✓	✓	
2,4,8	MX3 in ON	NO	✓	✓	✓	
2,4,9	CP-1 in auto	NO	✓	✓	✓	
2,4,10	CP-1 in hand	NO	✓	✓	✓	
2,4,11	CP-2 in auto	NO	✓	✓	✓	
2,4,12	CP-2 in hand	NO	✓	✓	✓	
2,4,13	KV426 in auto	NO	✓	✓	✓	
2,4,14	KV426 in hand	NO	✓	✓	✓	
2,4,15	FCV412 in auto	NO	✓	✓	✓	
2,5,0	FCV412 in hand	NO	✓	✓	✓	
2,5,1	OWS fault	NO	✓	✓	✓	
2,5,2	MX2 run	NO	✓	✓	✓	
2,5,3	MX3 run	NO	✓	✓	✓	
2,5,4	LSH425	NC	✓	✓	✓	
2,5,5	FF Estop	NO	✓	✓	✓	
2,5,6	KV532 in auto	NO	✓	✓	✓	
2,5,7	KV532 in hand	NO	✓	✓	✓	
2,5,8	P7 in auto	NO	✓	✓	✓	
2,5,9	P7 in hand	NO	✓	✓	✓	
2,5,10	CP4 in auto	NO	✓	✓	✓	
2,5,11	CP4 in hand	NO	✓	✓	✓	
2,5,12	CP6 in auto	NO	✓	✓	✓	

Point (Rack, slot, point)	Device	Normal state @ PLC OK?	Normal state @ MMI OK?	Trans. State @ PLC OK?	Trans. State @ MMI OK?	Verified by / Date
2,5,13	CP6 in hand	NO	✓	✓	✓	MJB 5/7/13
2,5,14	MX5 fault	NO	✓	✓	✓	
2,5,15	MX5 run	NO	✓	✓	✓	
2,6,0	MX6 fault	NO	✓	✓	✓	
2,6,1	MX6 run	NO	✓	✓	✓	
2,6,2	FCV605 in auto	NO	✓	✓	✓	
2,6,3	FCV605 in hand	NO	✓	✓	✓	
2,6,4	PDSHH 610	NO	✓	✓	✓	MJB 5/19/13
2,6,5	PDSH 610	NO	✓	✓	✓	
2,6,6	PDSHH 701	NO	✓	✓	✓	
2,6,7	PDSH 701	NO	✓	✓	✓	
2,6,8	FP Estop	NO	✓	✓	✓	MJB 5/7/13
2,6,9	PS621	NO	✓	✓	✓	
2,6,10	PS622	NO	✓	✓	✓	
2,6,11	LAH 620	NO	✓	✓	✓	
2,6,12	AS trouble	NO	✓	✓	✓	
2,6,13	B1 run	NO	✓	✓	✓	
2,6,14	B1 overload	NO	✓	✓	✓	
2,6,15	P8 run	NO	✓	✓	✓	
2,7,0	P9 run	NO	✓	✓	✓	
2,7,1	LSL656	NO	✓	✓	✓	
2,7,2	FP1 closed	NO	✓	✓	✓	
2,7,3	MX10 run	NO	✓	✓	✓	
2,7,4	FP Cycle ready	NO	✓	✓	✓	
2,7,5	FP cycle running	NO	✓	✓	✓	
2,7,6	FP cycle pause	NO	✓	✓	✓	

Point (Rack, slot, point)	Device	Normal state @ PLC OK?	Normal state @ MMI OK?	Trans. State @ PLC OK?	Trans. State @ MMI OK?	Verified by / Date
2,7,7	B1 in auto	NO	✓	✓	✓	MJB 5/7/03
2,7,8	B1 in hand	NO	✓	✓	✓	
2,7,9	P5 in auto	NO	✓	✓	✓	
2,7,10	P5 in hand	NO	✓	✓	✓	
2,7,11	P6 in auto	NO	✓	✓	✓	
2,7,12	P6 in hand	NO	✓	✓	✓	
2,8,1	MX1 in auto	NO	✓	✓	✓	
2,8,2	MX1 in hand	NO	✓	✓	✓	
2,8,3	MX1 run	NO	✓	✓	✓	
2,8,4	MX5 in auto	NO	✓	✓	✓	
2,8,5	MX5 in hand	NO	✓	✓	✓	
2,8,6	MX5 run	NO	✓	✓	✓	
2,8,7	P10 in auto	NO	✓	✓	✓	
2,8,8	P10 in hand	NO	✓	✓	✓	
2,8,9	P10 run	NO	✓	✓	✓	
2,8,10	P3 in auto	NO	✓	✓	✓	
2,8,11	P3 in hand	NO	✓	✓	✓	
2,8,12	P3 run	NO	✓	✓	✓	
2,8,13	P4 in auto	NO	✓	✓	✓	
2,8,14	P4 in hand	NO	✓	✓	✓	
2,8,15	P4 run	NO	✓	✓	✓	
2,9,0	MX4 in auto	NO	✓	✓	✓	
2,9,1	MX4 in hand	NO	✓	✓	✓	
2,9,2	MX4 run	NO	✓	✓	✓	

Point (Rack, slot, point)	Device	Normal state @ PLC OK?	Normal state @ MMI OK?	Trans. State @ PLC OK?	Trans. State @ MMI OK?	Verified by / Date
2,9,3	P19 in auto	NO	✓	✓	✓	MJB 5/7/03
2,9,4	P19 in hand	NO	✓	✓	✓	
2,9,5 *	P19 run	NO	✓	✓	✓	
2,9,6	P14 in auto	NO	✓	✓	✓	
2,9,7	P14 in hand	NO	✓	✓	✓	
2,9,8 *	P14 run	NO	✓	✓	✓	
2,9,9	P1 in auto	NO	✓	✓	✓	
2,9,10	P1 in hand	NO	✓	✓	✓	
2,9,11 *	P1 run	NO	✓	✓	✓	
2,9,12	P2 in auto	NO	✓	✓	✓	
2,9,13	P2 in hand	NO	✓	✓	✓	
2,9,14 *	P2 run	NO	✓	✓	✓	
2,9,15	PS1 in auto	NO	✓	✓	✓	
2,10,0	PS1 in hand	NO	✓	✓	✓	
2,10,1 *	PS1 run	NO	✓	✓	✓	
2,10,2	PS2 in auto	NO	✓	✓	✓	
2,10,3	PS2 in hand	NO	✓	✓	✓	
2,10,4 *	PS2 run	NO	✓	✓	✓	
2,10,5	PS3 in auto	NO	✓	✓	✓	
2,10,6	PS3 in hand	NO	✓	✓	✓	
2,10,7 *	PS3 run	NO	✓	✓	✓	
2,10,8 ***	LSH350	NC	✓	✓	✓	
2,10,9	LSH406	~~NC~~ NO	✓	✓	✓	
2,10,10	LSL480	NO	✓	✓	✓	
2,10,11	HS450	NC	✓	✓	✓	
2,10,12	LSH560	NO	✓	✓	✓	
2,10,13	LSHL 560	NO	✓	✓	✓	

Point (Rack, slot, point)	Device	Normal state @ PLC OK?	Normal state @ MMI OK?	Trans. State @ PLC OK?	Trans. State @ MMI OK?	Verified by / Date
2,10,14	TSL561	NO	✓	✓	✓	MJB 5/7/03
2,10,15	FS581	NO	✓	✓	✓	↓
2,11,0	P5 run	NO	✓	✓	✓	↓
2,11,1	P5 overload	NO	✓	✓	✓	↓
2,11,2	P6 run	NO	✓	✓	✓	↓
2,11,3	P6 overload	NO	✓	✓	✓	↓
2,11,4	MX9 run	NO	✓	✓	✓	↓
2,11,5	MX9 fault	NO	✓	✓	✓	↓
2,11,6	AC trouble	NO	✓	✓	✓	↓
~~2,11,7~~	~~AC run~~	~~NO~~				
2,11,8	LSH723	NC	✓	✓	✓	MJB 5/7/03
2,11,9	LSL722	NO	✓	✓	✓	↓
2,11,10 **	Generator trouble	NO				
2,11,11 **	Generator run	NO				
2,11,12 **	Generator low fuel	NO				
2,11,13	FP attn required	NO	✓	✓	✓	MJB 5/7/03
2,11,14	Alarm silence	NO	✓	✓	✓	↓
2,11,15	MCP Estop	NO	✓	✓	✓	↓

Notes:

2,7,13 KU 532 TO T6 NO ✓ ✓ ✓ MJB 5/7/03

* WITH HS IN AUTO AND DEVICE RUNNING, THE HAND SWITCH FAULTS. NEED TO REQUIRE HAND INPUT TO CORRECT

** GENERATOR NOT COMMISSIONED AT TIME OF SAT

*** SWITCH NOT INSTALLED, JUMPERED TO CHECK.

d. Digital Output Testing

i. Use the PLC to force the outputs. With the device hand switches in the AUTO position verify output by observing the output device run (if practical). Verify output status display at MMI.

Point (Rack, slot, point)	Device	Device run?	MMI display OK?	Verified by / Date
3,1,0	Alarm Horn	✓	N/A	MJB 5/6/03
3,1,1	Autodialer Tier 1	✓	"	
3,1,2	Autodialer Tier 2	✓	"	
3,3,0	PRW1	✓	✓	
3,3,1	PRW2	✓	✓	
3,3,2	PRW3	✓	✓	
3,3,3	PRW4	✓	✓	
3,3,4	CPS1	✓	✓	
3,3,5	CPS2	✓	✓	
3,3,6	CPS3	✓	✓	
3,3,7	CP3	✓	✓	
3,3,8	CP5	✓	✓	
3,3,9	CP7	✓	✓	
3,3,10	FCV605	✓	✓	
3,3,11	MX1	✓	✓	
3,3,12	MX5	✓	✓	
3,3,13	P10	✓	✓	
3,3,14	P3	✓	✓	
3,3,15	P4	✓	✓	
3,4,0	MX4	✓	✓	
3,4,1	P19	✓	✓	
3,4,2	P14	✓	✓	
3,4,3	P1	✓	✓	
3,4,4	P2	✓	✓	
3,4,5	PS1	✓	✓	
3,4,6	PS2	✓	✓	
3,4,7	PS3	✓	✓	
3,4,8	AIR STRIPPER	✓	✓	
3,4,9	KV426	✓	✓	
3,4,10	CP1	✓	✓	
3,4,11	CP2	✓	✓	
3,4,12	FCV412	✓	✓	
3,4,13	FP1	✓	✓	
3,4,14	PB1	✓	✓	
3,4,15	PB2	✓	✓	
3,5,0	KV532	✓	✓	

Point (Rack, slot, point)	Device	Device run?	MMI display OK?	Verified by / Date
3,5,1	P7	✓	✓	MJB 5/8/03
3,5,2	CP4	✓	✓	↓
3,5,3	CP6	✓	✓	↓

Notes:

3. PLC Functional Testing
   Functional Testing will verify control sequences, interlocks, and control loops per the plant functional description.
   a. Well Pump P-RW1

Action	Expected Result	Verified by / Date
Pump handswitch in hand **SEE EVENT LOG SECTION**	Pump is green on MMI Pump runs HS HAND @ MMI	MJB 5/9/03
Pump handswitch in off **SEE EVENT LOG SECTION**	Pump is red on MMI Pump stops HS OFF @ MMI	
Pump handswitch in Auto. Set Pump start and stop level above current well level **SEE EVENT LOG SECTION**	Pump does not run Pump is red on MMI HS AUTO @ MMI	
Pump handswitch in Auto. Set Pump stop level below current well level	Pump does not run Pump is red on MMI	
Pump handswitch in Auto. Set Pump start and stop level below current well level **SEE EVENT LOG SECTION**	Pump runs Pump is green on MMI	
Pump handswitch in Auto. Set Pump start level above current well level	Pump runs Pump is green on MMI	
Pump handswitch in Auto. Set Pump start and stop level above current well level **SEE EVENT LOG SECTION**	Pump stops Pump is red on MMI	

Notes: WELL LEVEL IS DISPLAYED ON GRAPHIC SCREEN

   b. Well Pump P-RW2

Action	Expected Result	Verified by / Date
Pump handswitch in hand **SEE EVENT LOG SECTION**	Pump is green on MMI Pump runs HS HAND @ MMI	MJB 5/9/03
Pump handswitch in off **SEE EVENT LOG SECTION**	Pump is red on MMI Pump stops HS OFF @ MMI	

Pump handswitch in Auto. Set Pump start and stop level above current well level **SEE EVENT LOG SECTION**	Pump does not run Pump is red on MMI HS Auto @ MMI	MJB 5/9/03
Pump handswitch in Auto. Set Pump stop level below current well level	Pump does not run Pump is red on MMI	
Pump handswitch in Auto. Set Pump start and stop level below current well level **SEE EVENT LOG SECTION**	Pump runs Pump is green on MMI	
Pump handswitch in Auto. Set Pump start level above current well level	Pump runs Pump is green on MMI	
Pump handswitch in Auto. Set Pump start and stop level above current well level **SEE EVENT LOG SECTION**	Pump stops Pump is red on MMI	

Notes: WELL LEVEL DISPLAYED ON GRAPHIC SCREEN
ON/OFF SET POINT ADJUSTABLE "

c. Well Pump P-RW3

Action	Expected Result	Verified by / Date
Pump handswitch in hand **SEE EVENT LOG SECTION**	Pump is green on MMI Pump runs HS HAND @ MMI	MJB 5/9/03
Pump handswitch in off **SEE EVENT LOG SECTION**	Pump is red on MMI Pump stops HS OFF @ MMI	
Pump handswitch in Auto. Set Pump start and stop level above current well level **SEE EVENT LOG SECTION**	Pump does not run Pump is red on MMI HS Auto @ MMI	
Pump handswitch in Auto. Set Pump stop level below current well level	Pump does not run Pump is red on MMI	

Pump handswitch in Auto. Set Pump start and stop level below current well level **SEE EVENT LOG SECTION**	Pump runs Pump is green on MMI	MJB 5/9/03
Pump handswitch in Auto. Set Pump start level above current well level	Pump runs Pump is green on MMI	
Pump handswitch in Auto. Set Pump start and stop level above current well level **SEE EVENT LOG SECTION**	Pump stops Pump is red on MMI	

Notes: WELL LEVEL DISPLAYED AT GRAPHIC SCREEN
ON/OFF SETPOINT ADJUSTABLE "

d. Well Pump P-RW4

Action	Expected Result	Verified by / Date
Pump handswitch in hand **SEE EVENT LOG SECTION**	Pump is green on MMI Pump runs HS HAND @ MMI	MJB 5/9/03
Pump handswitch in off **SEE EVENT LOG SECTION**	Pump is red on MMI Pump stops HS OFF @ MMI	
Pump handswitch in Auto. Set Pump start and stop level above current well level **SEE EVENT LOG SECTION**	Pump does not run Pump is red on MMI HS AUTO @ MMI	
Pump handswitch in Auto. Set Pump stop level below current well level	Pump does not run Pump is red on MMI	
Pump handswitch in Auto. Set Pump start and stop level below current well level **SEE EVENT LOG SECTION**	Pump runs Pump is green on MMI	
Pump handswitch in Auto. Set Pump start level above current well level	Pump runs Pump is green on MMI	

Pump handswitch in Auto. Set Pump start and stop level above current well level **SEE EVENT LOG SECTION**	Pump stops Pump is red on MMI	MJB 5/9/03

Notes: WELL LEVEL DISPLAYED ON GRAPHIC SCREEN
ON/OFF SETPOINT ADJUSTABLE "

e. Sump Pump P-S1 and Chemical Pump CP-S1

Action	Expected Result	Verified by / Date
CPS1 handswitch in hand **SEE EVENT LOG SECTION**	~~Pump is green on MMI~~ Pump runs NO INPUT TO PLC	MJB 5/9/03
CPS1 handswitch in off **SEE EVENT LOG SECTION**	Pump is red on MMI Pump stops	
PS1 handswitch in hand **SEE EVENT LOG SECTION**	Pump is green on MMI Pump runs CPS1 does not run	
PS1 handswitch in off **SEE EVENT LOG SECTION**	Pump is red on MMI Pump stops	
Pump handswitches in Auto. Set Pump start and stop level above current sump level **SEE EVENT LOG SECTION**	Pumps do not run ~~Pumps are~~ red on MMI PS1 is	
Pump handswitch in Auto. Set Pump stop level below current well level	Pumps do not run Pumps are red on MMI	
Pump handswitch in Auto. Set Pump start and stop level below current well level **SEE EVENT LOG SECTION**	Pumps run Pumps are green on MMI	
Pump handswitch in Auto. Set Pump start level above current well level	Pump runs Pump is green on MMI	
Pump handswitch in Auto. Set Pump start and stop level above current well level **SEE EVENT LOG SECTION**	Pump stops Pump is red on MMI	

Notes: LEVEL DISPLAYED ON GRAPHIC SCREEN
ON/OFF SETPOINTS ADJ. "

f. Sump Pump P-S2 and Chemical Pump CP-S2

Action	Expected Result	Verified by / Date
CPS2 handswitch in hand **SEE EVENT LOG SECTION**	~~Pump is green on MMI~~ Pump runs NO INPUT TO PLC	MJB 5/9/03
CPS2 handswitch in off **SEE EVENT LOG SECTION**	Pump is red on MMI Pump stops	
PS2 bandswitch in hand **SEE EVENT LOG SECTION**	Pump is green on MMI Pump runs CPS2 does not run	
PS2 handswitch in off **SEE EVENT LOG SECTION**	Pump is red on MMI Pump stops	
Pump handswitches in Auto. Set Pump start and stop level above current sump level **SEE EVENT LOG SECTION**	Pumps do not run Pumps are red on MMI	
Pump handswitch in Auto. Set Pump stop level below current well level	Pumps does not run Pumps are red on MMI	
Pump handswitch in Auto. Set Pump start and stop level below current well level **SEE EVENT LOG SECTION**	Pumps run Pumps are green on MMI	
Pump handswitch in Auto. Set Pump start level above current well level	Pumps run Pump are green on MMI	
Pump handswitch in Auto. Set Pump start and stop level above current well level **SEE EVENT LOG SECTION**	Pumps stop Pumps are red on MMI	

Notes: LEVEL IS DISPLAYED ON GRAPHIC SCREEN
ON/OFF SETPOINT ADJ. "

g. Sump Pump P-S3 and Chemical Pump CP-S3

Action	Expected Result	Verified by / Date
CPS3 handswitch in hand **SEE EVENT LOG SECTION**	~~Pump is green on MMI~~ Pump runs NO PLC INPUT	MJB 5/9/03
CPS3 handswitch in off **SEE EVENT LOG SECTION**	Pump is red on MMI Pump stops	
PS3 handswitch in hand **SEE EVENT LOG SECTION**	Pump is green on MMI Pump runs CPS3 does not run	
PS3 handswitch in off **SEE EVENT LOG SECTION**	Pump is red on MMI Pump stops	
Pump handswitches in Auto. Set Pump start and stop level above current sump level **SEE EVENT LOG SECTION**	Pumps do not run Pumps are red on MMI	
Pump handswitch in Auto. Set Pump stop level below current well level	Pumps does not run Pumps are red on MMI	
Pump handswitch in Auto. Set Pump start and stop level below current well level **SEE EVENT LOG SECTION**	Pumps run Pumps are green on MMI	
Pump handswitch in Auto. Set Pump start level above current well level	Pumps run Pump are green on MMI	
Pump handswitch in Auto. Set Pump start and stop level above current well level **SEE EVENT LOG SECTION**	Pumps stop Pumps are red on MMI	

Notes: LEVEL CHANGES ARE DISPLAYED ON GRAPHIC SCREEN
ON/OFF SP ADJUSTABLE "

h. Sump Oil Tank T-12

No PLC control function.

Notes: WHEN FULL (SWITCH TRIPPED) GRAPHIC SWITCHES FROM EMPTY TO DISPLAYING "FULL"

i. Dilute Acid Tank

Action	Expected Result	Verified by / Date
Put MX4 handswitch in hand **SEE EVENT LOG SECTION**	MX4 green at MMI MX4 runs	MJB 5/9/03
Put MX4 handswitch in OFF	MX4 red at MMI MX4 stops	
Put MX4 handswitch in AUTO **SEE EVENT LOG SECTION**	MX4 green at MMI MX4 runs	

Notes: MIXER TURNS OFF WHEN LEVEL IS BELOW LOW LEVEL SWITCH
MMI DISPLAY LOW SWITCH STATS AS "LOW ACID LEVEL"

j. Equalization Tank and Mixer MX-1

Action	Expected Result	Verified by / Date
MX1 handswitch in hand **SEE EVENT LOG SECTION**	Mixer is green on MMI Mixer runs	MJB 5/9/03
MX1 handswitch in off **SEE EVENT LOG SECTION**	Mixer is red on MMI Mixer stops	
MX1 handswitch in auto. Set all Eq level setpoints above current level in tank. **SEE EVENT LOG SECTION**	MX1 does not run MX1 red at MMI	
Set LSLL-402 to a level slightly greater than the deadband below the current water level. **SEE EVENT LOG SECTION**	MX1 starts MX1 Green at MMI	
Set LSLL-302 above the current tank level. **SEE EVENT LOG SECTION**	MX1 stops MX1 Red at MMI	

Notes: LEVEL IS DESPLAYED ON GRAPHIC SCREEN

k. Feed Pumps P-1 and P-2

Action	Expected Result	Verified by / Date
P1 and P2 handswitches in hand **SEE EVENT LOG SECTION**	Pumps are green on MMI Pumps run HS HAND @ MMI	MJB 5/12/03
P1 and P2 handswitches in off **SEE EVENT LOG SECTION**	Pumps are red on MMI Pumps stop HS OFF @ MMI	
FCV412 handswitch in hand **SEE EVENT LOG SECTION** *	Valve is green on MMI Valve pilot air is on HS HAND @ MMI	
FCV412 handswitch in off **SEE EVENT LOG SECTION**	Valve is red on MMI Valve pilot air is off HS OFF @ MMI	
Continue with Eq tank levels from previous section. Turn P1, P2, CP3 and FCV412 handswitches to auto. Set FCV412 minimum output to ~~10~~ 20% and maximum output to ~~30~~ 40%. Set eq tank level setpoint well below current tank level. **SEE EVENT LOG SECTION**	P1 does not run P1 red at MMI P2 does not run P2 red at MMI FCV412 air supply does not open FCV412 red at MMI FCV412 output 0%	
Set LSL-402 below the current water level.	P1 does not run P1 red at MMI P2 does not run P2 red at MMI FCV412 air supply does not open FCV412 red at MMI FCV412 output 0%	
Set LSH-402 below the current tank level. **SEE EVENT LOG SECTION**	P1 runs P1 green at MMI P2 does not run P2 red at MMI FCV412 air supply open FCV412 green at MMI FCV412 output 10%	
Set FCV412 setpoint slightly below current water level.	P1 runs P1 green at MMI P2 does not run P2 red at MMI FCV412 air supply open FCV412 green at MMI FCV412 output modulates between 10% and 30%	

Set FCV412 setpoint slightly above current water level.	P1 runs P1 green at MMI P2 does not run P2 red at MMI FCV412 air supply open FCV412 green at MMI FCV412 output modulates between 10% and 30%	MJB 5/12/03
Set FCV412 setpoint well above current water level.	P1 runs P1 green at MMI P2 does not run P2 red at MMI FCV412 air supply open FCV412 green at MMI FCV412 output at 30%	
Set FCV412 output at current water level. Set LSHH402 below current water level **SEE EVENT LOG SECTION**	P1 runs P1 green at MMI P2 runs P2 green at MMI FCV412 air supply open FCV412 green at MMI FCV412 output at10%-30%	
Turn CP3 handswitch OFF	P1 stops P1 red at MMI P2 stops P2 red at MMI FCV412 air supply closes FCV412 red at MMI FCV412 output at 0%	
Turn CP3 handswitch to AUTO to restart pumps. Turn FCV412 handswitch OFF.	P1 stops P1 red at MMI P2 stops P2 red at MMI FCV412 air supply closes FCV412 red at MMI FCV412 output at 0%	MJB 5/12/03
Turn FCV412 handswitch to AUTO to restart pumps. Set LSHH402 above current water level	P1 runs P1 green at MMI P2 runs P2 green at MMI FCV412 air supply open FCV412 green at MMI FCV412 output at10%-30%	

Set LSH402 above current water level **SEE EVENT LOG SECTION**	P1 runs P1 green at MMI P2 stops P2 red at MMI FCV412 air supply open FCV412 green at MMI FCV412 output at10%-30%	MJB 5/12/03
Set LSL402 above current water level **SEE EVENT LOG SECTION**	P1 stops P1 red at MMI P2 stops P2 red at MMI FCV412 air supply closes FCV412 red at MMI FCV412 output at 0%	

Notes: * VALVE IS RED IF MANUAL SETPOINT ON GRAPHIC SCREEN IS 0%
MANUAL FCV412 POSITION ADJUSTMENT ADDED TO MMI
** VALVE FCV412 MAY OPEN + CLOSED SP ADDED TO MMI

1. Oil/Water Separator

The Oil/Water Separator is a packaged unit with local control. The main PLC will provide permissive signals to devices in the system as well as monitor device states.

Action	Expected Result	Verified by / Date
Put MX2 and MX3 handswitches in OFF **SEE EVENT LOG SECTION**	MX2 red at MMI MX3 red at MMI	MJB 5/13/03
Put MX2 and MX3 handswitches in ON **SEE EVENT LOG SECTION**	MX2 green at MMI MX3 green at MMI	
Put CP1 and CP2 handswitches in hand **SEE EVENT LOG SECTION**	CP1 green at MMI CP1 starts pumping CP2 green at MMI CP2 starts pumping	
Put CP1 and CP2 handswitches in OFF **SEE EVENT LOG SECTION**	CP1 red at MMI CP1 stops pumping CP2 red at MMI CP2 stops pumping	
Put CP1 and CP2 handswitches in AUTO **SEE EVENT LOG SECTION**	CP1 red at MMI CP2 red at MMI	
Start P1 or P2 and turn MX2 ON	CP1 green at MMI CP1 starts pumping CP2 red at MMI	
Turn MX3 ON	CP1 green at MMI CP1 pumping CP2 green at MMI CP2 starts pumping	

Stop the feed pumps (P1 and/or P2)	CP1 red at MMI CP1 stops pumping CP2 red at MMI CP2 stops pumping	MJB 5/12/03
Put KV426 handswitch to HAND **SEE EVENT LOG SECTION**	KV426 green at MMI KV426 opens	
Put KV426 handswitch to OFF **SEE EVENT LOG SECTION**	KV426 red at MMI KV426 closes	
Put KV426 handswitch to AUTO with LAH425 not active **SEE EVENT LOG SECTION**	KV426 green at MMI KV426 opens based on cycle timer	

Notes: KV 426 IS HELD CLOSED IF LSH 425 IS TRIPPED

m. PAC Mix Tank T2 AND PAC Pump CP-3

Action	Expected Result	Verified by / Date
Put MX5 handswitch in OFF **SEE EVENT LOG SECTION**	MX5 red at MMI MX5 does not run	MJB 5/12/03
Put MX5 handswitch in HAND **SEE EVENT LOG SECTION**	MX5 green at MMI MX5 runs	
Put MX5 handswitch in AUTO **SEE EVENT LOG SECTION**	MX5 green at MMI MX5 runs	
~~Reset alarm.~~ Put CP3, CP4 and CP6 handswitches in hand **SEE EVENT LOG SECTION**	NO INPUT TO PLC ~~CP3 green at MMI~~ CP3 starts pumping CP4 green at MMI CP4 starts pumping CP6 green at MMI CP6 starts pumping	IN RESPONSE TO A1C 503
Put CP3, CP4 and CP6 handswitches in OFF **SEE EVENT LOG SECTION**	CP3 red at MMI CP3 stops pumping CP4 red at MMI CP4 stops pumping CP6 red at MMI CP6 stops pumping	
Put CP3, CP4 and CP6 handswitches in AUTO **SEE EVENT LOG SECTION**	CP3 red at MMI CP3 stops pumping CP4 red at MMI CP4 stops pumping CP6 red at MMI CP6 stops pumping	

Input CP3 stroke and dosage rate to MMI. Start P1 or P2 and turn MX5 ON	CP3 green at MMI CP4 green at MMI CP6 green at MMI CP3 pumps in proportion to FIQT415 measurement CP4 or CP6 pumps depending on pH	MJB 5/12/03
Modulate the flow measured by FIQT415	CP3 speed modulates in proportion to FIQT415 measurement	
Stop the feed pumps (P1 and/or P2)	CP3 red at MMI CP3 does not pump CP4 red at MMI CP4 does not pump CP6 red at MMI CP6 does not pump	
Restart pumps and turn MX5 OFF	CP4 red at MMI CP4 does not pump CP6 red at MMI CP6 does not pump	

Notes: PAC LEVEL SHOWN ON GRAPHIC SCREEN

n. Flash/Floc and IPC

The IPC is a packaged unit with local control. The main PLC will provide permissive signals to devices in the system as well as monitor device states.

Action	Expected Result	Verified by / Date
MX6 and MX7 OFF	MX6 red at MMI MX6 does not run MX7 red at MMI MX7 does not run	MJB 5/13/03
Start MX6 and MX7 **SEE EVENT LOG SECTION**	MX6 green at MMI MX6 runs MX7 green at MMI MX7 runs	
Input PB1 stroke, water flowrate and dosage rate to MMI. Start P1 or P2.	PB1 green at MMI PB1 runs PB1 modulates with FIQT415 measurement	
Modulate the flow measured by FIQT415	PB1 speed modulates in proportion to FIQT415 measurement	
Stop the feed pumps (P1 and/or P2)	PB1 red at MMI PB1 does not pump	

Restart pumps and turn MX6 OFF	PB1 red at MMI PB1 does not pump	MJB 5/13/03
Put KV532 handswitch to DRAIN **SEE EVENT LOG SECTION**	KV532 green at MMI KV532 directs flow to T6	
Put KV532 handswitch to RECYCLE **SEE EVENT LOG SECTION**	KV532 red at MMI KV532 directs flow to T3	
Put KV426 handswitch to AUTO **SEE EVENT LOG SECTION**	KV532 green at MMI KV532 opens based on cycle timer	
Put P7 handswitch to HAND **SEE EVENT LOG SECTION**	P7 green at MMI P7 runs	
Put P7 handswitch to OFF **SEE EVENT LOG SECTION**	P7 red at MMI P7 stops	
Put P7 handswitch to AUTO **SEE EVENT LOG SECTION**	P7 green at MMI unless LAH640 is active, red otherwise P7 runs unless LAH640 is active	

Notes:

o. Clearwell T5 and Pumps P-3 and P-4

Action	Expected Result	Verified by / Date
P3 and P4 handswitches in hand **SEE EVENT LOG SECTION**	Pumps are green on MMI Pumps run	MJB 5/13/03
P3 and P4 handswitches in off **SEE EVENT LOG SECTION**	Pumps are red on MMI Pumps stop	
FCV605 handswitch in hand **SEE EVENT LOG SECTION**	Valve is green on MMI Valve pilot air is on *	
FCV605 handswitch in off **SEE EVENT LOG SECTION**	Valve is red on MMI Valve pilot air is off	
Set clearwell tank level setpoints above current tank level. Turn P3, P4, and FCV605 handswitches to auto. Start the air stripper blower. Set FCV605 minimum output to 10% and maximum output to 30%. Set eq tank level setpoint well below current tank level. **SEE EVENT LOG SECTION**	P3 does not run P3 red at MMI P4 does not run P4 red at MMI FCV605 air supply does not open FCV605 red at MMI ~~FCV605 output 0%~~	

Set LSL-601 below the current water level. (WITH BLOWER RUNNING)	P3 does not run P3 red at MMI P4 does not run P4 red at MMI FCV605 air supply does not open FCV605 red at MMI ~~FCV605 output 0%~~	MJB 5/13/03
Set LSH-601 below the current tank level. **SEE EVENT LOG SECTION**	P3 runs P3 green at MMI P4 does not run P4 red at MMI FCV605 air supply open FCV605 green at MMI FCV605 output 10%	
Set FCV605 setpoint slightly below current water level.	P3 runs P3 green at MMI P4 does not run P4 red at MMI FCV605 air supply open FCV605 green at MMI FCV605 output modulates between 10% and 30%	
Set FCV605 setpoint slightly above current water level.	P3 runs P3 green at MMI P4 does not run P4 red at MMI FCV605 air supply open FCV605 green at MMI FCV605 output modulates between 10% and 30%	
Set FCV605 setpoint well above current water level.	P3 runs P3 green at MMI P4 does not run P4 red at MMI FCV605 air supply open FCV605 green at MMI FCV605 output at 30%	
Set FCV412 output at current water level. Set LSHH601 below current water level **SEE EVENT LOG SECTION**	P3 runs P3 green at MMI P4 runs P4 green at MMI FCV605 air supply open FCV605 green at MMI FCV605 output at10%-30%	

Turn blower OFF.	P3 stops P3 red at MMI P4 stops P4 red at MMI FCV605 air supply closes FCV605 red at MMI FCV605 output at 0%	MJB 5/13/03
Restart pumps by turning blower back on. Turn FCV605 handswitch OFF.	P3 stops P3 red at MMI P4 stops P4 red at MMI FCV605 air supply closes FCV605 red at MMI FCV605 output at 0%	
Turn FCV605 handswitch to AUTO to restart pumps. Set LSHH601 above current water level	P3 runs P3 green at MMI P4 runs P4 green at MMI FCV605 air supply open FCV605 green at MMI FCV605 output at10%-30%	
Set LSH601 above current water level **SEE EVENT LOG SECTION**	P3 runs P3 green at MMI P4 stops P4 red at MMI FCV605 air supply open FCV605 green at MMI FCV605 output at10%-30%	
Set LSL601 above current water level **SEE EVENT LOG SECTION**	P3 stops P3 red at MMI P4 stops P4 red at MMI FCV605 air supply closes FCV605 red at MMI FCV605 output at 0%	

Notes: * FCV 605 HAS SAME NOTES AS FCV 412
FCV 605 OUTPUT SHOWS AUTO OUTPUT FROM PID ALGORITHM (NOT ACTUAL VALVE POSITION)

p. Air Stripper

The Air Stripper is a packaged unit with local control. The main PLC will provide permissive signals to devices in the system as well as monitor device states.

Action	Expected Result	Verified by / Date
Put B1, P5, and P6 handswitches in OFF **SEE EVENT LOG SECTION**	B1 red at MMI B1 does not run P5 red at MMI P5 does not run P6 red at MMI P6 docs not run	MJB 5/14/03
Put B1, P5, and P6 handswitches in HAND **SEE EVENT LOG SECTION**	B1 green at MMI B1 runs P5 green at MMI P5 runs P6 green at MMI P6 runs	
Put B1, P5, and P6 handswitches in AUTO **SEE EVENT LOG SECTION**	B1 red at MMI B1 does not run P5 red at MMI P5 does not run P6 red at MMI P6 does not run	
Start P1 or P2	B1 green at MMI B1 runs	
Stop P1 and P2	B1 red at MMI B1 stops (after 5 mins)	
Start P3 or P4	B1 green at MMI B1 runs P5 and P6 green or red depending on run state P5 and P6 run if called by air stripper	
Stop P3 and P4	B1 red at MMI B1 stops (after 5 mins) P5 and P6 green or red depending on run state P5 and P6 run if called by air stripper	

Notes:

q. Carbon Filter

The Carbon Filter is manually controlled and manually backwashed.

Action	Expected Result	Verified by / Date
Put P19 handswitch in OFF **SEE EVENT LOG SECTION**	P19 red at MMI P19 does not run	MJB 5/14/03

Put P19 handswitch in HAND **SEE EVENT LOG SECTION**	P19 green at MMI P19 runs	MJB 5/14/03
Put P19 handswitch in AUTO **SEE EVENT LOG SECTION**	P19 green at MMI P19 runs	

Notes: DEAD BAND ADDED TO LSL 722 RESET TO PREVENT RAPID CYCLING OF P.14/P.19 IN A LOW LEVEL CONDITION (ADJUSTABLE @ MMI)

r. Effluent Tank T14 and Chemical Pumps CP5 and CP7

Action	Expected Result	Verified by / Date
Put P14, CP5, and CP7 handswitches in OFF **SEE EVENT LOG SECTION**	P14 red at MMI P14 does not run CP5 red at MMI CP5 does not run CP7 red at MMI CP7 does not run	MJB 5/14/03
Put P14, CP5, and CP7 handswitches in HAND **SEE EVENT LOG SECTION**	P14 green at MMI P14 runs CP5 green at MMI CP5 runs CP7 green at MMI CP7 runs	
Put P14, CP5, and CP7 handswitches in AUTO **SEE EVENT LOG SECTION**	P14 green at MMI P14 runs CP5 red at MMI CP5 does not run CP7 green at MMI CP7 does not run	
Artificially Set Effluent flow above 1 gpm	CP5 green at MMI CP5 runs depending on pH CP7 green at MMI CP7 runs depending on pH	
Turn P14 OFF.	P14 red at MMI P14 does not run CP5 red at MMI CP5 does not run CP7 red at MMI CP7 does not run	
Turn P14 back on. ~~Turn P19 on.~~	~~CP5 red at MMI~~ ~~CP5 does not run~~ ~~CP7 red at MMI~~ ~~CP7 does not run~~	

Notes:

s. Sludge Tank T6, Mixer MX9, and Polyblend PB2

Aetion	Expected Result	Verified by / Date
Turn MX9 OFF **SEE EVENT LOG SECTION**	MX9 red at MMI MX9 does not run	MJB 5/14/03
Turn MX9 ON **SEE EVENT LOG SECTION**	MX9 green at MMI MX9 runs	
Input water flowrate and polymer dose rate for PB2. Turn P7 on and KV532 toward T6	PB2 runs PB2 green at MMI	
Turn OFF P7	PB2 does not run PB2 red at MMI	
Restart P7. Turn KV532 toward T3	PB2 does not run PB2 red at MMI	

Notes: MX9 NOT RUNNING SHUTS DOWN PB2.

t. Filter Press FP1

The Filter Press is a packaged unit with local control. The main PLC will provide permissive signals to devices in the system as well as monitor device states.

Action	Expected Result	Verified by / Date
Turn filter press system ON at MMI	P8, P9, and MX10 allowed to run	MJB 5/14/03
Turn P8 OFF **SEE EVENT LOG SECTION**	P8 red at MMI (BASED ON PRESS CYCLE STATE)	
Turn P8 ON **SEE EVENT LOG SECTION**	P8 green at MMI (BASED ON PRESS CYCLE STATE)	
Turn P9 OFF **SEE EVENT LOG SECTION**	P9 red at MMI (BASED ON PRESS CYCLE STATE)	
Turn P9 ON **SEE EVENT LOG SECTION**	P9 green at MMI (BASED ON PRESS CYCLE STATE)	
Turn MX10 OFF **SEE EVENT LOG SECTION**	MX10 red at MMI	
Turn MX10 ON **SEE EVENT LOG SECTION**	MX10 green at MMI	
~~Turn filter press system OFF at MMI~~	P8, P9, and MX10 do not run	
Put FP in ready mode **SEE EVENT LOG SECTION**	Ready mode indicated at MMI Filter Press ~~Red~~ TEXT YELLOW at MMI	MJB 5/14/03

Put FP in run mode **SEE EVENT LOG SECTION**	Run mode indicated at MMI Filter Press Green at MMI TEXT	MJB 5/14/03
Put FP in pause mode **SEE EVENT LOG SECTION**	Pause mode indicated at MMI Filter Press Flashing Green at MMI TEXT	
Finish FP cycle **SEE EVENT LOG SECTION**	FP Attention Required indicated at MMI Filter Press Red at MMI TEXT	

Notes:

u. Building sump pump P10

Action	Expected Result	Verified by / Date
Turn P10 OFF **SEE EVENT LOG SECTION**	P10 red at MMI P10 does not run	MJB 5/14/03
Turn P10 to HAND **SEE EVENT LOG SECTION**	P10 green at MMI P10 runs	
Turn P10 to AUTO **SEE EVENT LOG SECTION**	P10 red at MMI P10 does not run	
~~Trip LSHL-560 in the building sump **SEE EVENT LOG SECTION**~~	~~P10 green at MMI P10 runs~~	

Notes:

v. Emergency Generator

Action	Expected Result	Verified by / Date
Start Emergency generator **SEE EVENT LOG SECTION**	Generator running indicated at MMI	

Notes: GENERATOR NOT COMMISSIONED AT TIME OF SAT

4. System Alarm Testing ALL ALARMS SENT TO EVENT LOG (EL)

a. Begin normal system operation. Trigger alarms below and verify response. When any alarm occurs, it is indicated on the Operator Interface and a horn sounds. If the alarm condition removed, the horn will silence, but a visual indication will remain until the alarm is cleared. The autodialer may or may not be activated depending on the alarm.

ALARM	EXPECTED RESULT	VERIFIED BY/DATE
Air compressor trouble	Horn MMI Indication Autodialer Tier 2 EL	MJB 5/15/03
Air stripper high sump level	Horn MMI Indication Autodialer Tier 2 Shut down P3 and P4 Close FCV605 EL BLOWER SHUT DOWN, MUST BE MANUALLY RESET	
Air stripper low air vacuum	Horn MMI Indication Autodialer Tier 1 Shut down P1, P2, P3, P4 Close FCV412 and FCV605 EL	
Air stripper high vacuum	Horn MMI Indication Autodialer Tier 2 Shut down P1, P2, P3, P4 Close FCV412 and FCV605 EL	
B-1 overload	Horn MMI Indication Autodialer Tier 2 Shut down P1, P2, P3, P4 Close FCV412 and FCV605 EL	
BF-1/2 high diff pressure	Horn MMI Indication EL	
BF-1/2 high high diff pressure	Horn MMI Indication Autodialer Tier 1 ~~Shut down P3, P4~~ EL	
BF-3/4 high diff pressure	Horn MMI Indication EL	
BF-3/4 high high diff pressure	Horn MMI Indication Autodialer Tier 1 ~~Shut down P3, P4, P5, P6~~ EL	
Generator low fuel	Horn MMI Indication Autodialer Tier 1	

ALARM	EXPECTED RESULT	VERIFIED BY/DATE
Generator trouble	Horn MMI Indication Autodialer Tier 1 EL	MJB 5/14/13
High building sump level NOT TESTABLE AT TIME OF SAT	Horn MMI Indication SHUT DOWN FILTER PRESS Autodialer Tier 2 Shut down P-RW1,-RW2,-RW3,-RW4 Shut down P-S1, P-S2, P-S3 Shut down P1, P2, P3, P4, Air stripper, P14 Close FCV412 and FCV605 EL	
High collection sump pH	Horn MMI Indication Autodialer Tier 1 EL	
High PAC Mix Tank pH	Horn MMI Indication Autodialer Tier ~~1~~ 2 Shut down P1, P2 EL	
High recovery well pH	Horn MMI Indication Autodialer Tier 1 EL	
High S1 Oil Sump Level	Horn MMI Indication EL	
High T-1 level NOT TESTABLE AT TIME OF SAT	Horn MMI Indication SHUT DOWN FILTER PRESS Autodialer Tier 2 Shut down P-RW1,-RW2,-RW3,-RW4 Shut down P-S1, P-S2, P-S3 Shut down P10, P19 EL	
~~IPC fault~~ MX 6 + MX 7 FAULT (INDIVIDUAL)	Horn MMI Indication Autodialer Tier 2 EL	
Low building temperature	Horn MMI Indication Autodialer Tier 1 EL	
Low collection sump pH	Horn MMI Indication Autodialer Tier 1 EL	
Low PAC flow	Horn MMI Indication Autodialer Tier 2 Shut down P1, P2 EL	

ALARM	EXPECTED RESULT	VERIFIED BY/DATE
Low PAC Mix Tank pH	Horn MMI Indication Autodialer Tier ~~1~~ 2 Shut down P1, P2 EL	MJB 5/14/03
Low polymer flow	Horn MMI Indication Autodialer Tier 2 Shut down P1, P2 EL	
Low recovery well pH	Horn MMI Indication Autodialer Tier 1 EL	
~~Low T-T level~~	~~Horn~~ ~~MMI Indication~~	
MX9 fault	Horn MMI Indication EL	MJB 5/14/03
OWS Chamber 1 high pH	Horn MMI Indication Autodialer Tier ~~1~~ 2 Shut down P1, P2 EL	
OWS Chamber 1 low pH	Horn MMI Indication Autodialer Tier ~~1~~ 2 Shut down P1, P2 EL	
OWS Chamber 3 high pH	Horn MMI Indication Autodialer Tier ~~1~~ 2 Shut down P1, P2 EL	
OWS Chamber 3 low pH	Horn MMI Indication Autodialer Tier ~~1~~ 2 Shut down P1, P2 EL	
OWS fault	Horn MMI Indication Autodialer Tier 1 EL	
P-5 overload	Horn MMI Indication Autodialer Tier 2 EL	
P-6 overload	Horn MMI Indication Autodialer Tier 2 EL	
Press attention required	Horn MMI Indication ~~Autodialer Tier 2~~ EL	

ALARM	EXPECTED RESULT	VERIFIED BY/DATE
P-RW1 Overload	Horn MMI Indication Autodialer Tier ~~2~~ 1 EL	MJB 5/16/03
P-RW2 Overload	Horn MMI Indication Autodialer Tier ~~2~~ 1 EL	
P-RW3 Overload	Horn MMI Indication Autodialer Tier ~~2~~ 1 EL	
P-RW4 Overload	Horn MMI Indication Autodialer Tier ~~2~~ 1 EL	
Safety shower activated	Horn MMI Indication Autodialer Tier 2 EL	
T-1 containment high level NOT TESTABLE AT TIME OF SAT	Horn SHUT DOWN P-18 P-19 MMI Indication Autodialer Tier 2 Shut down P-RW1,-RW2,-RW3,-RW4 Shut down P-S1, P-S2, P-S3 EL	
T-1 low temperature	Horn MMI Indication Autodialer Tier 1 EL	
T-10 high level	Horn MMI Indication Autodialer Tier 1 Lock out KV424 EL	
T-11 Low Level	Horn MMI Indication Shut Down CPS1, CPS2, CPS3 EL	
T-13 low level	Horn MMI Indication EL	
T-14 high level	Horn MMI Indication Autodialer Tier 1 Shut down P3, P4, ~~P5, P6~~ EL	
T-14 high pH	Horn MMI Indication Autodialer Tier 1 Shut down CP7 Shut down ~~P5, P6~~ EL	

ALARM	EXPECTED RESULT	VERIFIED BY/DATE
T-14 low level	Horn MMI Indication Autodialer Tier 1 Shut down CP5, CP7, P14, P19 EL	MJB 5/16/03
T-14 low pH	Horn MMI Indication Autodialer Tier 1 Shut down CP5 ~~Shut down P5, P6~~ EL	
T-15A empty	Horn MMI Indication Autodialer Tier 2 Shut down PB1, PB2 EL	
T-15A high level	Horn MMI Indication EL	
T-15A low level	Horn MMI Indication EL	
T-16 empty	Horn MMI Indication Autodialer Tier 2 Shut down CP3 EL	
T-16 high level	Horn MMI Indication EL	
T-16 low level	Horn MMI Indication EL	
T-5 high level NOT TESTABLE AT TIME OF SAT	Horn MMI Indication ~~Autodialer Tier 2~~ Shut down P-RW1,-RW2,-RW3,-RW4 ~~Shut down P-S1, P-S2, P-S3~~ Shut down P1, P2 Close FCV412 EL	MG 5/20/03
T-6 high level	Horn MMI Indication Autodialer Tier 2 Shutdown P7 Direct KV532 to T3 EL	
T-6 low level	Horn MMI Indication Pause filter press cycle EL	
T-8A empty	Horn MMI Indication Autodialer Tier 2 Shut down CP1, CP4, CP5 EL	

ALARM	EXPECTED RESULT	VERIFIED BY/DATE
T-8A high level	Horn MMI Indication	MG 5/20/03
T-8A low level	Horn MMI Indication	
T-9 empty	Horn MMI Indication Autodialer Tier 2 Shut down CP2, CP6, CP7	
T-9 high level	Horn MMI Indication	
T-9 low level	Horn MMI Indication	

Notes:

5. System Event Log Testing
    a. Trigger events and verify they are logged with correct time and date in the MMI. Some events may have been tested during the PLC functional testing.

Event	Logged?	Verified by / Date
AI-404 20mA SP change	✓ ONLY WHEN DOWNLOADING PROGRAM	
AI-404 4mA SP change	✓	
AI-405 20mA SP change	✓	
AI-405 4mA SP change	✓	
AIC-404 high pH alarm setpoint SP change	✓	MJB 5/19/03
AIC-404 low pH alarm SP change setpoint	✓	↓
AIC-405 high pH alarm setpoint SP change	✓	↓
AIC-405 low pH alarm setpoint SP change	✓	↓
AIC-420 20mA SP change	✓	
AIC-420 4mA SP change	✓	
AIC-420 high pH alarm setpoint SP change	✓	MJB 5/19/03
AIC-420 low pH alarm SP change setpoint	✓	"
AIC-423 20mA SP change	✓	
AIC-423 4mA SP change	✓	
AIC-423 high pH alarm setpoint SP change	✓	MJB 5/19/03
AIC-423 low pH alarm setpoint SP change	✓	"
AIC-503 20mA SP change	✓	
AIC-503 4mA SP change	✓	
AIC-503 high pH alarm setpoint SP change	✓	MJB 5/19/03
AIC-503 low pH alarm setpoint SP change	✓	"
AIC-724 20mA SP change	✓	
AIC-724 4mA SP change	✓	
AIC-724 high pH alarm setpoint SP change	✓	MJB 5/19/03
AIC-724 low pH alarm setpoint SP change	✓	"
~~Alarm reset SP change~~		
B1 HS to AUTO	✓ NEED TO ADD CODE	
B1 HS to HAND	✓	

Event	Logged?	Verified by / Date
B1 HS to OFF	✱ ✱	
B1 off in AUTO		
B1 on in AUTO		
CP1 HS to AUTO		
CP1 HS to HAND		
CP1 HS to OFF		
CP2 HS to AUTO		
CP2 HS to HAND		
CP2 HS to OFF		
CP3 dosage SP change	✓	MJB 5/19/03
CP3 HS to AUTO	✱ ✱	
CP3 HS to HAND		
CP3 HS to OFF		
CP3 stroke SP change	✓	MJB 5/19/03
CP4 HS to AUTO	✱ ✱	
CP4 HS to HAND		
CP4 HS to OFF		
CP5 HS to AUTO		
CP5 HS to HAND		
CP5 HS to OFF		
CP6 HS to AUTO		
CP6 HS to HAND		
CP6 HS to OFF		
CP7 HS to AUTO		
CP7 HS to HAND		
CP7 HS to OFF		
CP-S1 HS to AUTO		
CP-S1 HS to HAND		
CP-S1 HS to OFF		
CP-S2 HS to AUTO		
CP-S2 HS to HAND		
CP-S2 HS to OFF		
CP-S3 HS to AUTO		
CP-S3 HS to HAND		
CP-S3 HS to OFF		
FCV-412 HS to AUTO		
FCV-412 HS to HAND		
FCV-412 HS to OFF		
FCV412 level setpoint SP change	✓	MJB 5/19/03
FCV-412 maximum open SP change	✓	
FCV-412 minimum open SP change	✓	

Event	Logged?	Verified by / Date
FCV412 output (manual mode) SP change	✓	MJB 5/19/03
FCV412 PID loop auto/manual mode SP change		
FCV-412 proportional gain SP change	✓	MJB 5/19/03
FCV-412 rate (differential) SP change	✓	
FCV-412 reset (integral) SP change	✓	
FCV-412 turned off in AUTO	✓	
FCV-412 turned on in AUTO	✓	
FCV605 HS to AUTO	✓	
FCV605 HS to HAND	↓	
FCV605 HS to OFF	↓	
FCV605 level setpoint SP change		
FCV-605 maximum open SP change		
FCV-605 minimum open SP change		
FCV605 off in AUTO	✓	
FCV605 on in AUTO	↓	
FCV605 output (manual mode) SP change		
FCV605 PID loop auto/manual mode SP change		
FCV-605 proportional gain SP change		
FCV-605 rate (differential) SP change		
FCV-605 reset (integral) SP change		
Filter press attention required		
Filter Press closed		
Filter press opened		
Filter press paused		
Filter press set to run		
FQI-203 20mA SP change	✗	

Event	Logged?	Verified by / Date
FQI-203 4mA SP change		
FQI-223 20mA SP change		
FQI-223 4mA SP change		
FQI-233 20mA SP change		
FQI-233 4mA SP change		
FQI-243 20mA SP change		
FQI-243 4mA SP change		
FQI-303 20mA SP change		
FQI-303 4mA SP change		
FQI-323 20mA SP change		
FQI-323 4mA SP change		
FQI-333 20mA SP change		
FQI-333 4mA SP change		
FQI-415 20mA SP change		
FQI-415 4mA SP change		
FQI-721 20mA SP change		
FQI-7214mA SP change		
KV-424 HS to AUTO		
KV-424 HS to HAND		
KV-424 HS to OFF		
KV-532 HS to AUTO		
KV-532 HS to Drain		
KV-532 HS to Recycle		
LAH-402 SP change		
LAH-460 SP change		
LAH-470 SP change		
LAH-540 SP change		
LAH-550 SP change		
LAH601 SP change		
LAH640 SP change		
LAL-402 SP change		
LAL-460 SP change		
LAL-470 SP change		
LAL-540 SP change		
LAL-550 SP change		
LIT-402 20mA SP change		
LIT-402 4mA SP change		
LIT-460 20mA SP change		
LIT-460 4mA SP change		
LIT-470 20mA SP change		
LIT-470 4mA SP change		
LIT-540 20mA SP change		
LIT-540 4mA SP change		
LIT-550 20mA SP change		

Event	Logged?	Verified by / Date
LIT-550 4mA SP change		
LIT-601 20mA SP change		
LIT-601 4mA SP change		
LIT-640 20mA SP change		
LIT-640 4mA SP change		
LSH-402 SP change		
LSH-460 SP change		
LSH-470 SP change		
LSH-540 SP change		
LSH-550 SP change		
LSH601 SP change		
LSH640 SP change		
LSHH-402 SP change		
LSHH601 SP change		
LSL-402 SP change		
LSL601 SP change		
LSL640 SP change		
LSLL-402 SP change		
MX-1 HS to AUTO		
MX-1 HS to HAND		
MX-1 HS to OFF		
MX-1 turned off in AUTO		
MX-1 turned on in AUTO		
MX2 to OFF		
MX2 to ON		
MX3 to OFF		
MX3 to ON		
MX-4 HS to AUTO		
MX-4 HS to HAND		
MX-4 HS to OFF		
MX9 current 20mA SP change		
MX9 current 4mA SP change		
P-1 HS to AUTO		
P-1 HS to HAND		
P-1 HS to OFF		
P-1 turned off in AUTO		
P-1 turned on in AUTO		
P10 HS to AUTO		
P10 HS to HAND		
P10 HS to OFF		
P10 off in AUTO		
P10 on in AUTO		

Event	Logged?	Verified by / Date
P14 HS to AUTO		
P14 HS to HAND		
P14 HS to OFF		
P14 off in AUTO		
P14 on in AUTO		
P19 HS to AUTO		
P19 HS to HAND		
P19 HS to OFF		
P19 off in AUTO		
P19 on in AUTO		
P-2 HS to AUTO		
P-2 HS to HAND		
P-2 HS to OFF		
P-2 turned off in AUTO		
P-2 turned on in AUTO		
P5 HS to AUTO		
P5 HS to HAND		
P5 HS to OFF		
P5 off in AUTO		
P5 on in AUTO		
P6 HS to AUTO		
P6 HS to HAND		
P6 HS to OFF		
P6 off in AUTO		
P6 on in AUTO		
P7 HS to AUTO		
P7 HS to HAND		
P7 HS to OFF		
PB1 dosage SP change		
PB1 stroke SP change		
PB1 water flowrate SP change		
PB2 dosage SP change		
PB2 stroke SP change		
PB2 water flowrate SP change		
PIT-201 20 mA SP change		
PIT-201 4mA SP change		
PIT-221 20 mA SP change		
PIT-221 4mA SP change		
PIT-231 20 mA SP change		
PIT-231 4mA SP change		
PIT-241 20 mA SP change		
PIT-241 4mA SP change		

Event	Logged?	Verified by / Date
PIT-301 20 mA SP change		
PIT-301 4mA SP change		
PIT-321 20 mA SP change		
PIT-321 4mA SP change		
PIT-331 20 mA SP change		
PIT-331 4mA SP change		
P-RW1 HS to AUTO		
P-RW1 HS to HAND		
P-RW1 HS to OFF		
P-RW1 start level SP change		
P-RW1 stop level SP change		
P-RW1 turned OFF in AUTO		
P-RW1 turned on in AUTO		
P-RW2 HS to AUTO		
P-RW2 HS to HAND		
P-RW2 HS to OFF		
P-RW2 start level SP change		
P-RW2 stop level SP change		
P-RW2 turned OFF in AUTO		
P-RW2 turned on in AUTO		
P-RW3 HS to AUTO		
P-RW3 HS to HAND		
P-RW3 HS to OFF		
P-RW3 start level SP change		
P-RW3 stop level SP change		
P-RW3 turned OFF in AUTO		
P-RW3 turned on in AUTO		
P-RW4 HS to AUTO		
P-RW4 HS to HAND		
P-RW4 HS to OFF		
P-RW4 start level SP change		
P-RW4 stop level SP change		

Event	Logged?	Verified by / Date
P-RW4 turned OFF in AUTO		
P-RW4 turned on in AUTO		
P-S1 HS to AUTO		
P-S1 HS to HAND		
P-S1 HS to OFF		
P-S1 start level SP change		
P-S1 stop level SP change		
P-S1 turned OFF in AUTO		
P-S1 turned on in AUTO		
P-S2 HS to AUTO		
P-S2 HS to HAND		
P-S2 HS to OFF		
P-S2 start level SP change		
P-S2 stop level SP change		
P-S2 turned OFF in AUTO		
P-S2 turned on in AUTO		
P-S3 HS to AUTO		
P-S3 HS to HAND		
P-S3 HS to OFF		
P-S3 start level SP change		
P-S3 stop level SP change		
P-S3 turned OFF in AUTO		
P-S3 turned on in AUTO		
TAL-401 SP change		
TIT-401 20mA SP change		
TIT-401 4mA SP change		

Notes:

6. System Trend Testing
    a. Verify all analog inputs and outputs have associated trends and data is logged to a historical data file. Verify data is accessible for review.

Measured Variable	Trend?	Historical Data File?	Verified by / Date
Acid tote level LIT-460			
Caustic Tank level LIT-470			
Clearwell level LIT-601			
CP3 speed			
Effluent flow LIT-721			
Effluent pH AIC-724			
EQ level LIT-402			
EQ Temperature TIT-401			
Feed flow FQIT-415			
Feed valve FCV412 position			
Filter valve FCV605 position			
MX9 current			
OWS Chamber 1 pH AIC-420			
OWS chamber 3 pH AIC-423			
PAC Mix Tank pH AIC-503			
PAC Tank level LIT-540			
Polyblend PB1 pace			
Polyblend PB2 pace			
Polymer tote level LIT-550			
Sludge tank level LIT-640			
Sump 1 flow FQI-303			
Sump 1 level PIT-301			

Measured Variable	Trend?	Historical Data File?	Verified by / Date
Sump 2 flow FQI-323			
Sump 2 level PIT-321			
Sump 3 flow FQI-333			
Sump 3 level PIT-331			
Sump line pH AI-404			
Well 1 flow FQI-203			
Well 1 level PIT-201			
Well 2 flow FQI-223			
Well 2 level PIT-221			
Well 3 flow FQI-233			
Well 3 level PIT-231			
Well 4 flow FQI-243			
Well 4 level PIT-241			
Well line pH AI-405			

Notes:

7. System Security Testing
    a. Verify clearance allow proper permissions for data entry and manipulation.

Item	Minimum Clearance	Verified by / Date
AI-404 20mA	Manager/Engineer	
AI-404 4mA	Manager/Engineer	
AI-405 20mA	Manager/Engineer	
AI-405 4mA	Manager/Engineer	
AIC-404 high pH alarm setpoint	Supervisor	
AIC-404 low pH alarm setpoint	Supervisor	
AIC-405 high pH alarm setpoint	Supervisor	
AIC-405 low pH alarm setpoint	Supervisor	
AIC-420 20mA	Manager/Engineer	
AIC-420 4mA	Manager/Engineer	
AIC-420 high pH alarm setpoint	Supervisor	
AIC-420 low pH alarm setpoint	Supervisor	
AIC-423 20mA	Manager/Engineer	
AIC-423 4mA	Manager/Engineer	
AIC-423 high pH alarm setpoint	Supervisor	
AIC-423 low pH alarm setpoint	Supervisor	
AIC-503 20mA	Manager/Engineer	
AIC-503 4mA	Manager/Engineer	
AIC-503 high pH alarm setpoint	Supervisor	
AIC-503 low pH alarm setpoint	Supervisor	
AIC-724 20mA	Manager/Engineer	
AIC-724 4mA	Manager/Engineer	
AIC-724 high pH alarm setpoint	Supervisor	
AIC-724 low pH alarm setpoint	Supervisor	
Alarm reset	Operator	
CP3 dosage	Operator	
CP3 stroke	Operator	
FCV412 level setpoint	Supervisor	
FCV-412 maximum open	Manager/Engineer	

Item	Minimum Clearance	Verified by / Date
FCV-412 minimum open	Manager/Engineer	
FCV412 output (manual mode)	Operator	
FCV412 PID loop auto/manual mode	Operator	
FCV-412 proportional gain	Supervisor	
FCV-412 rate (differential)	Supervisor	
FCV-412 reset (integral)	Supervisor	
FCV605 level setpoint	Supervisor	
FCV-605 maximum open	Manager/Engineer	
FCV-605 minimum open	Manager/Engineer	
FCV605 output (manual mode)	Operator	
FCV605 PID loop auto/manual mode	Operator	
FCV-605 proportional gain	Supervisor	
FCV-605 rate (differential)	Supervisor	
FCV-605 reset (integral)	Supervisor	
FQI-203 20mA	Manager/Engineer	
FQI-203 4mA	Manager/Engineer	
FQI-223 20mA	Manager/Engineer	
FQI-223 4mA	Manager/Engineer	
FQI-233 20mA	Manager/Engineer	
FQI-233 4mA	Manager/Engineer	
FQI-243 20mA	Manager/Engineer	
FQI-243 4mA	Manager/Engineer	
FQI-303 20mA	Manager/Engineer	
FQI-303 4mA	Manager/Engineer	
FQI-323 20mA	Manager/Engineer	
FQI-323 4mA	Manager/Engineer	
FQI-333 20mA	Manager/Engineer	
FQI-333 4mA	Manager/Engineer	
FQI-415 20mA	Manager/Engineer	
FQI-415 4mA	Manager/Engineer	
FQI-721 20mA	Manager/Engineer	
FQI-7214mA	Manager/Engineer	
LAH-402	Supervisor	
LAH-460	Supervisor	
LAH-470	Supervisor	
LAH-540	Supervisor	
LAH-550	Supervisor	
LAH601	Supervisor	
LAH640	Supervisor	
LAL-402	Supervisor	

Item	Minimum Clearance	Verified by / Date
LAL-460	Supervisor	
LAL-470	Supervisor	
LAL-540	Supervisor	
LAL-550	Supervisor	
LIT-402 20mA	Manager/Engineer	
LIT-402 4mA	Manager/Engineer	
LIT-460 20mA	Manager/Engineer	
LIT-460 4mA	Manager/Engineer	
LIT-470 20mA	Manager/Engineer	
LIT-470 4mA	Manager/Engineer	
LIT-540 20mA	Manager/Engineer	
LIT-540 4mA	Manager/Engineer	
LIT-550 20mA	Manager/Engineer	
LIT-550 4mA	Manager/Engineer	
LIT-601 20mA	Manager/Engineer	
LIT-601 4mA	Manager/Engineer	
LIT-640 20mA	Manager/Engineer	
LIT-640 4mA	Manager/Engineer	
LSH-402	Supervisor	
LSH-460	Supervisor	
LSH-470	Supervisor	
LSH-540	Supervisor	
LSH-550	Supervisor	
LSH601	Supervisor	
LSH640	Supervisor	
LSHH-402	Supervisor	
LSHH601	Supervisor	
LSL-402	Supervisor	
LSL601	Supervisor	
LSL640	Supervisor	
LSLL-402	Supervisor	
MX9 current 20mA	Manager/Engineer	
MX9 current 4mA	Manager/Engineer	
PB1 dosage	Operator	
PB1 stroke	Operator	
PB1 water flowrate	Operator	
PB2 dosage	Operator	
PB2 stroke	Operator	
PB2 water flowrate	Operator	
PIT-201 20 mA	Manager/Engineer	
PIT-201 4mA	Manager/Engineer	
PIT-221 20 mA	Manager/Engineer	
PIT-221 4mA	Manager/Engineer	
PIT-231 20 mA	Manager/Engineer	

Item	Minimum Clearance	Verified by / Date
PIT-231 4mA	Manager/Engineer	
PIT-241 20 mA	Manager/Engineer	
PIT-241 4mA	Manager/Engineer	
PIT-301 20 mA	Manager/Engineer	
PIT-301 4mA	Manager/Engineer	
PIT-321 20 mA	Manager/Engineer	
PIT-321 4mA	Manager/Engineer	
PIT-331 20 mA	Manager/Engineer	
PIT-331 4mA	Manager/Engineer	
P-RW1 start level	Supervisor	
P-RW1 stop level	Supervisor	
P-RW2 start level	Supervisor	
P-RW2 stop level	Supervisor	
P-RW3 start level	Supervisor	
P-RW3 stop level	Supervisor	
P-RW4 start level	Supervisor	
P-RW4 stop level	Supervisor	
P-S1 start level	Supervisor	
P-S1 stop level	Supervisor	
P-S2 start level	Supervisor	
P-S2 stop level	Supervisor	
P-S3 start level	Supervisor	
P-S3 stop level	Supervisor	
TAL-401	Supervisor	
TIT-401 20mA	Manager/Engineer	
TIT-401 4mA	Manager/Engineer	

Notes:

b. Verify usernames and passwords access the right areas.

Username	Password	Correct Access	Verified by / Date

Notes:

8. System Remote Monitoring Testing
    a. Verify the SAMCO remote terminal and Amphenol remote terminal are correctly configured and allow appropriate manipulation of the Plantscape system.

Remote Terminal	Capability	Checks Out	Verified by / Date
Amphenol	Remote Monitoring Only		
SAMCO	Remote Monitoring PLC and MMI code editing		

Notes:

F-11

GWTP CERTIFICATE OF OCCUPANCY

COUPON NO. 3 — Final Inspection

(To be mailed or delivered to Town Enforcement Officer when building is ready for Final Inspection. This Coupon will be returned to you as a Certicate of Occupancy Notice)

Name Richardson Hill Rd DWTP

Address 2211 Richardson Hill Rd - Town of Masonville

Building Permit No. 245

Applicant Not to Write Below This Line

CERTIFICATE OF OCCUPANCY Date 5-29-03

A Certificate of Occupancy for the Structure or Structures described in the above numbered Building Permit is hereby GRANTED (X) DENIED ( )

Reason for Denial

Suggested Action

Harry Raymond Town Enforcement Officer

BUILDING PERMIT

TOWN OF MASONVILLE, N. Y.

This is to certify that a Building Permit has been issued to

Carbade Construction Corp

to erect, alter or repair a building on the premises at

No. 245 **Owned by** Amphenol

Dated 9/25/02 **Expires** 9/25/03

Signed Pamela A. Wu

This permit must be posted at the place where the work is in progress.

F-12

WORK PLATFORM MATERIAL TEST RESULTS

AMPHENOL CORPORATION

Richardson Hill Road Landfill
Construction of Earthwork Activities
Contract No.

Shaw Environmental
Project # 843536

LETTER OF TRANSMITTAL

Transmittal No.: 66

Date Submitted: June 9, 2003

Section No.: 02223

Resubmittal: No

Description:

1.02 A – Unclassified Fill or backfill for working platform construction

Name and owner of borrow source and testing

Name and owner: Clarke Companies (Ploutz Pit)

Tests - Included

Deviations:

_____

_____

_____

_____

Jeff Goolsby 6/9/03
Submitted by/date

Status: (circle one) 1. Approved as Submittal 2. Approved as Noted
3. Returned for Corrections 4. Resubmit (not Approved)

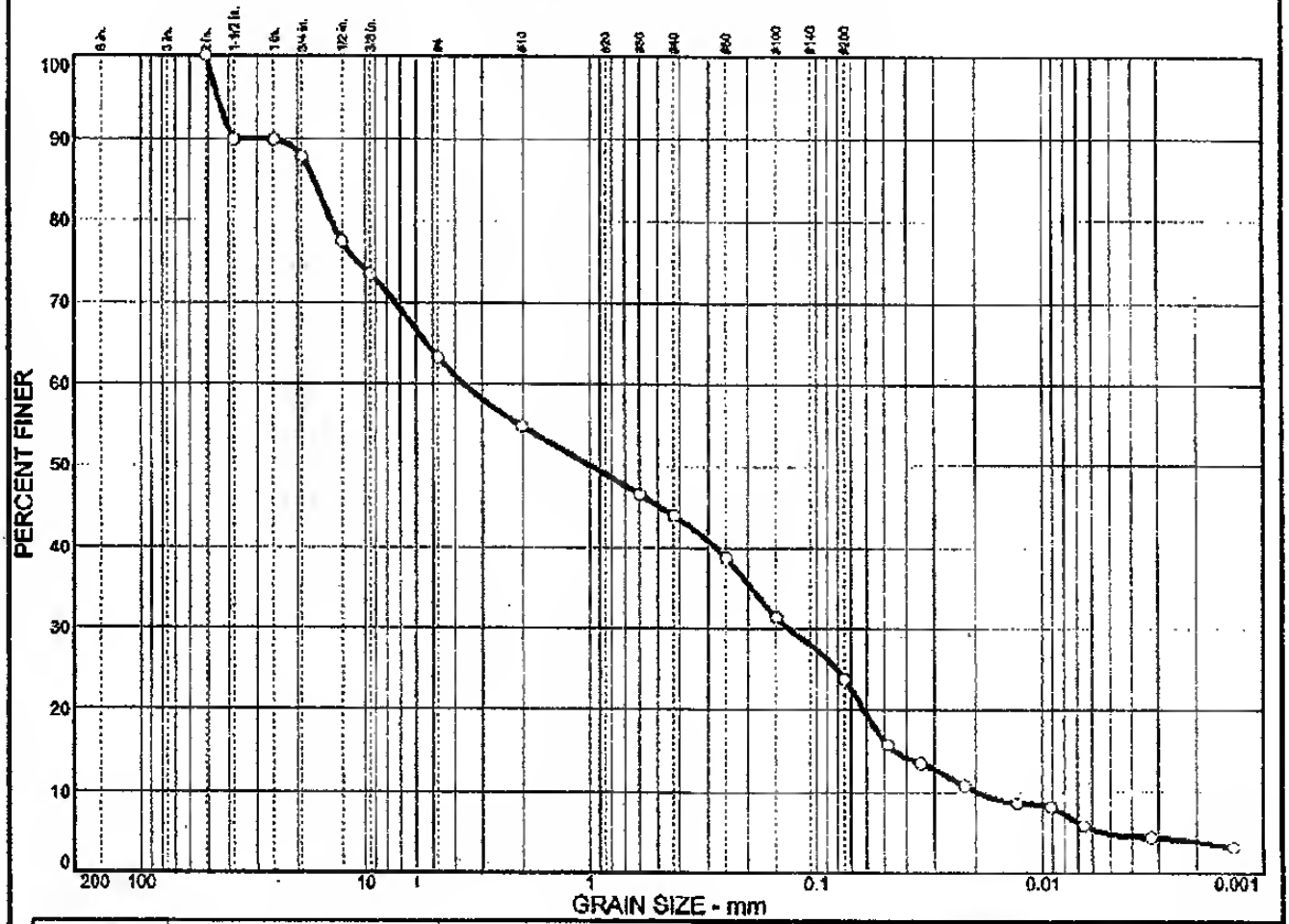
Comments:

_____

_____

_____

Particle Size Distribution Report



	% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
○	0.0	36.7	39.5	19.0	4.8

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_C	C_U
○			16.8	3.63	0.996	0.132	0.0446	0.0194	0.25	187.31

MATERIAL DESCRIPTION	USCS	AASHTO
○ Dark Brown		

Project No. 843536 **Client:** SHAW E & I, INC.

Project: RICHARDSON HILL RD. LANDFILL

○ **Source:** **Sample No.:** BARRIER PROTECTION 1A

Remarks:

○ Moisture Content = 9.5%

Tested by: M.S.

Entered by: K.H.

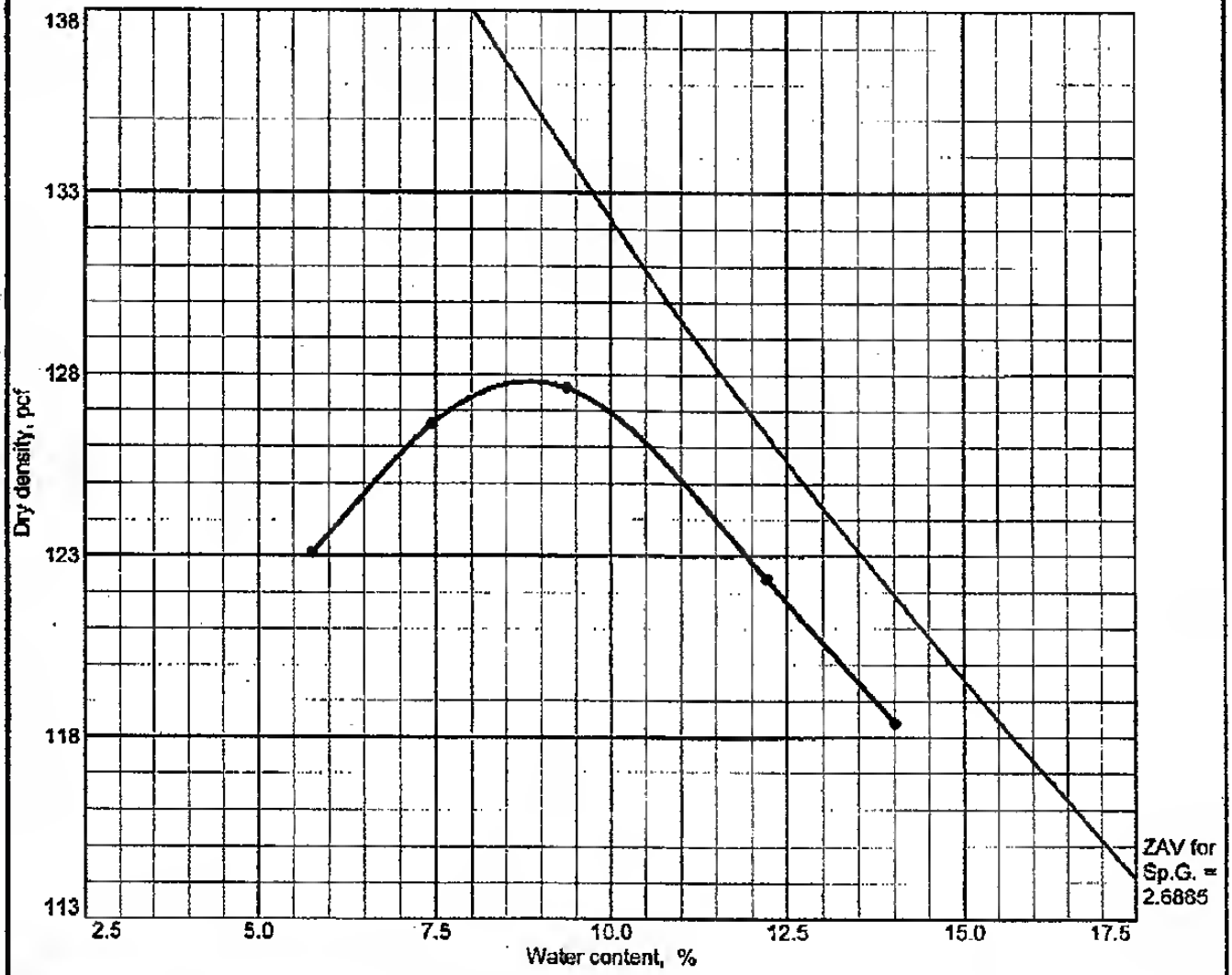
Checked by: R.S.A.

Particle Size Distribution Report

EMCON/OWT, Inc.

Date: 6-4-03

COMPACTION TEST REPORT



Test specification: ASTM D 698-91 Procedure A Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > No.4	% < No.200
	USCS	AASHTO						
				2.6885				

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 127.8 pcf Optimum moisture = 8.8 %	

Project No. 843536 **Client:** SHAW E & I, INC.
Project: RICHARDSON HILL RD. LANDFILL
Source: **Sample No.:** BARRIER PROTECTION

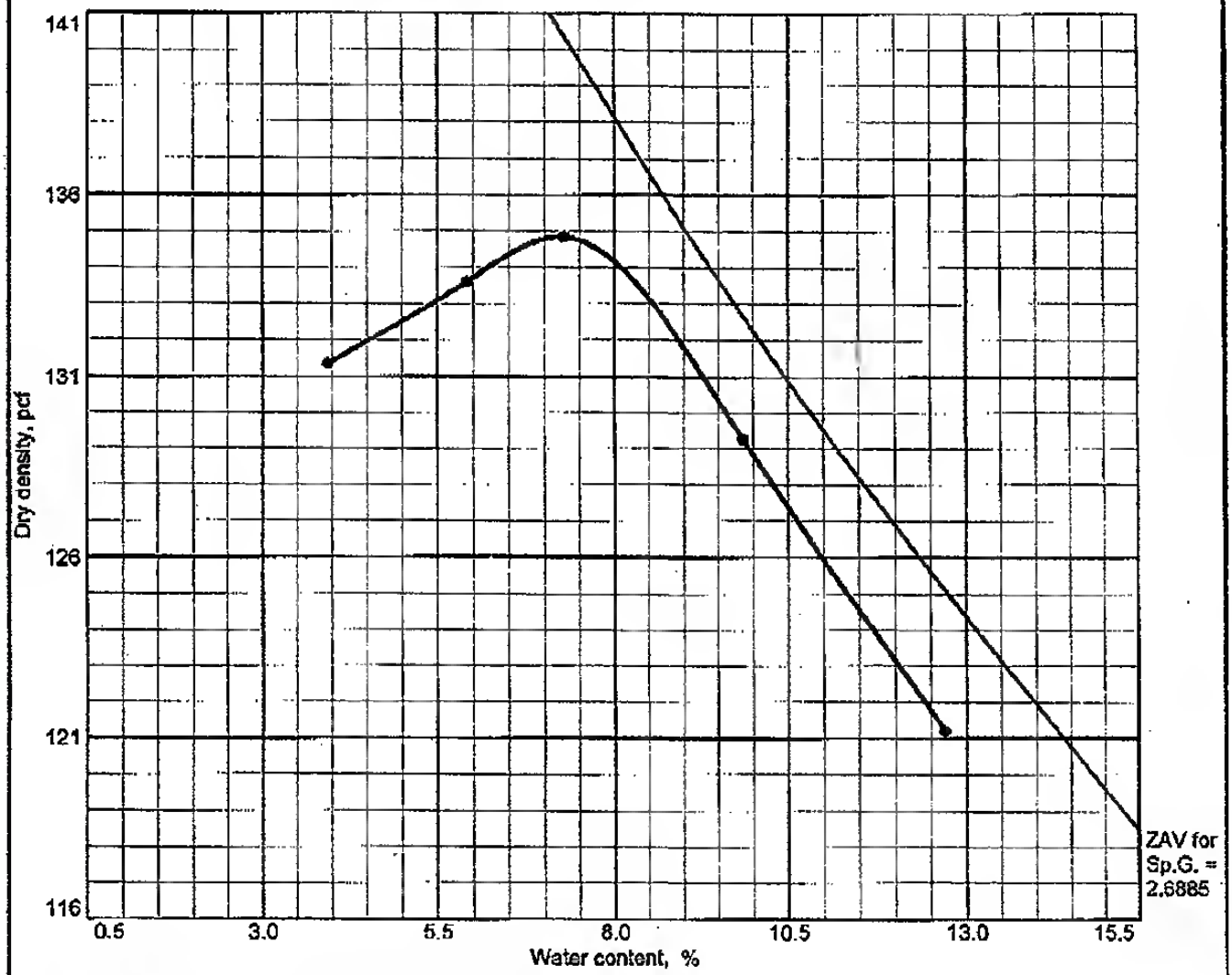
Remarks:
Tested by: K.P.
Entered by: K.H.
Checked by: R.S.A.

COMPACTION TEST REPORT

EMCON/OWT, Inc.

Date: 6-3-03

COMPACTION TEST REPORT



Test specification: ASTM D 1557-91 Procedure A Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > No.4	% < No.200
	USCS	AASHTO						
				2.6885				

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 134.9 pcf Optimum moisture = 7.2 %	

Project No. 843536 **Client:** SHAW E & I, INC.
Project: RICHARDSON HILL RD. LANDFILL

• **Source:** **Sample No.:** BARRIER PROTECTION

Remarks:
Tested by: K.P.
Entered by: K.H.
Checked by: R.S.A.

COMPACTION TEST REPORT

EMCON/OWT, Inc.

Date: 6-3-03

FLI
FRIEND LABORATORY INC

32 ITHACA STREET WAVERLY, NY 14892-1532
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date:02-JUN-2003

Lab Sample ID: L105274-3

Shaw Environmental & Infrastructure
Geoff Goolden
2211 Richardson Hill Road
Sidney Center, NY 13839

Sample Source: RICHARDSON HILL RD LF
Origin: BARRIER PROT. T.PLOUTZ
Description: CORE, 8435.36
Sampled On: 29-MAY-03 00:00 by CLIENT
Date Received: 30-MAY-03 13:30
P.O. No: 215020

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
Total Solids	90.9	%		30-MAY-03 17:14	CLP 3.0	02-123-91
EPA 8082						
PCB 1016	U	ug/kg	110	02-JUN-03 11:00	EPA 8082	03-043-6082
PCB 1221	U	ug/kg	220	02-JUN-03 11:00	EPA 8082	03-043-6082
PCB 1232	U	ug/kg	110	02-JUN-03 11:00	EPA 8082	03-043-6082
PCB 1242	U	ug/kg	110	02-JUN-03 11:00	EPA 8082	03-043-6082
PCB 1248	U	ug/kg	110	02-JUN-03 11:00	EPA 8082	03-043-6082
PCB 1254	U	ug/kg	110	02-JUN-03 11:00	EPA 8082	03-043-6082
PCB 1260	U	ug/kg	110	02-JUN-03 11:00	EPA 8082	03-043-6082
Extraction Information:				30-MAY-03 00:00	EPA 3550	03-029-44
Surrogate Recovery:						
Tetrachloro-m-xylene	82	%				03-043-6082
Decachlorobiphenyl	57	%				03-043-6082

Results calculated on a dry weight basis.

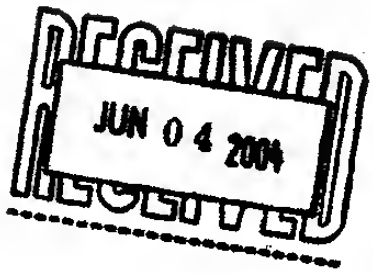
Approved by: Daniel J. Dano, Lab Director

NY 10252 NJ 73168 PA 68180 EPA NY 00033

KEY: ND or U = None Detected < = less than ug/L = micrograms per liter (equivalent to parts per billion)
mg/L = milligram per liter (equivalent to parts per million) mg/kg = milligrams per kilogram (equivalent to parts per million)
B = analyte was detected in the method or trip blank J = result estimated below the quantitation limit

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost for these services. Your samples will be discarded after 14 days unless we are advised otherwise.

AMPHENOL CORPORATION



Richardson Hill Road Landfill
Construction of Earthwork Activities
Contract No.

Shaw Environmental
Project # 843536

LETTER OF TRANSMITTAL

Transmittal No.: 115 Date Submitted: 6/4/04

Section No.: 02223 3.03 Table-1 Resubmittal: No

Description: – Initial Slurry Trench Work Platform Material sample test results for:

- sieve analysis
- modified Proctor test
- PCB analysis
- Natural moisture content

Material supplied by Clark

Deviations: _____

_____

Alex Listh 6/4/04
Submitted by/date

PARSONS

Review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Contractor is responsible for compliance with the contract documents, confirming and correlating all quantities and dimensions, selecting fabrication methods and techniques of construction, coordinating his work with other trades, and performance of his work in a safe and satisfactory manner.

Subject To The Above This Submittal is:

Approved ☐
Approved As Noted ☐
To Be Revised And Resubmitted ☐
Disapproved ☐

By _____

Date 6/4/04

Project # _____

Status: (circle one) 1. Approved as Submitted 2. Approved as Noted
3. Returned for Corrections 4. Resubmit (not Approved)

Comments: _____

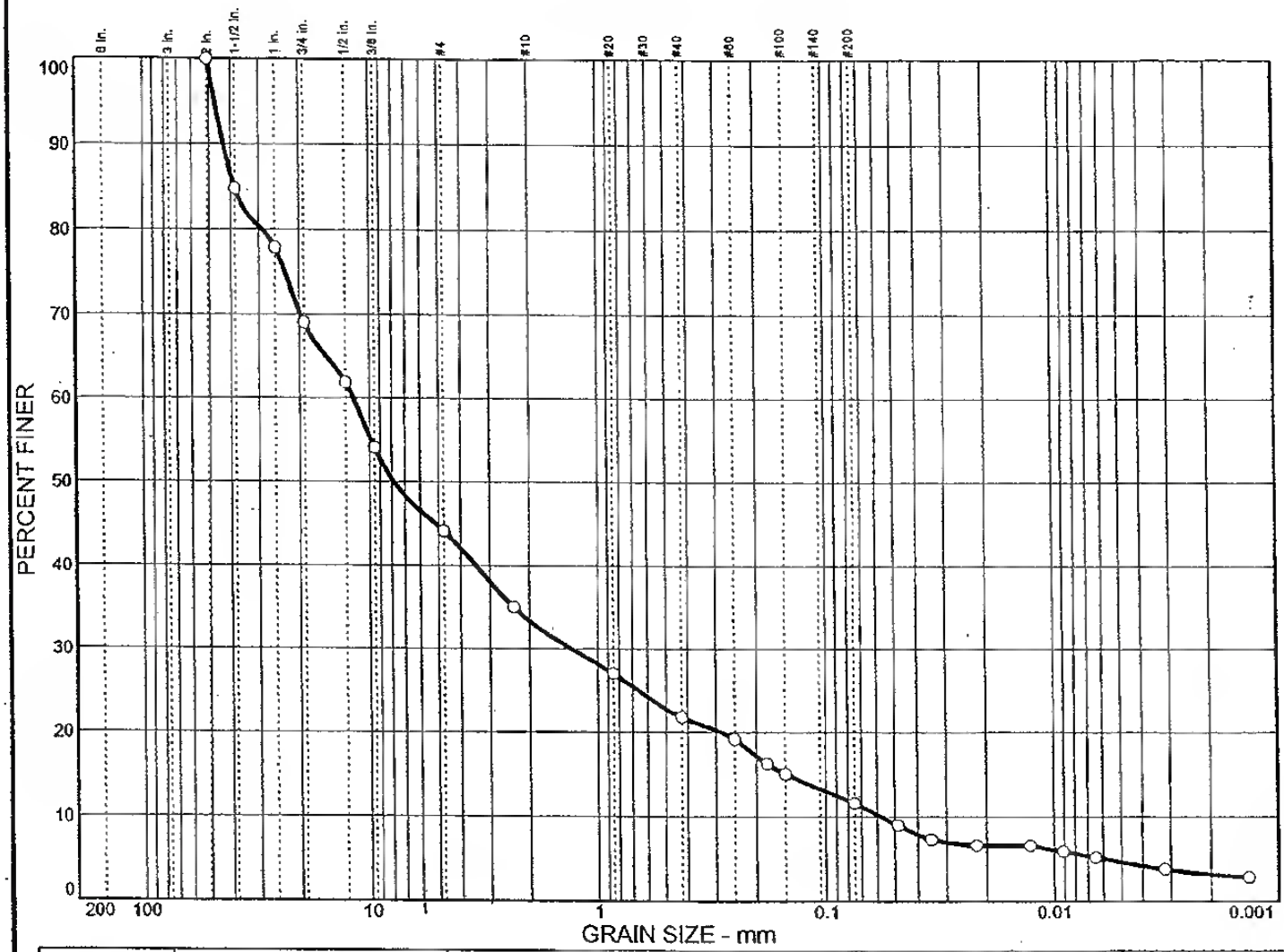
_____

_____

_____

_____
Signed by/date

Particle Size Distribution Report



	% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
○	0.0	55.9	32.5	7.0	4.6

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			38.3	11.7	7.83	1.32	0.147	0.0572	2.58	205.46

	MATERIAL DESCRIPTION	USCS	AASHTO
○			

Project No. 843536 **Client:** EMCON/OWT

Project: RICHARDSON HILL RD

○ **Source:** **Sample No.:** WP051904-1

Remarks:

○ Moisture Content = 5.5%

Tested by MS

Entered by KH

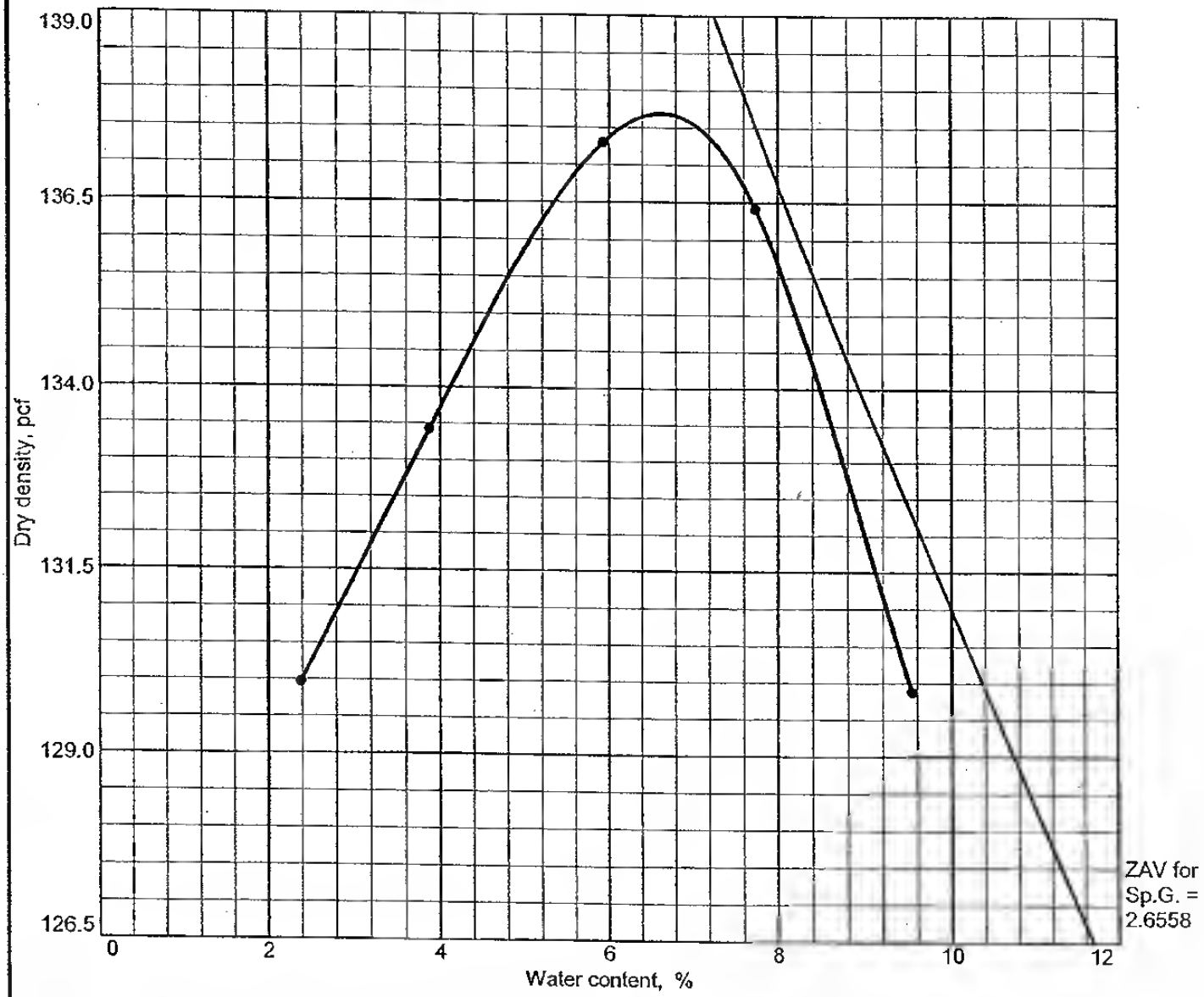
Checked by RSA

Particle Size Distribution Report

EMCON/OWT, Inc.

Date: 5-25-04

COMPACTION TEST REPORT



Test specification: ASTM D 1557-91 Procedure C Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
				2.6558				

TEST RESULTS

Maximum dry density = 137.7 pcf

Optimum moisture = 6.6 %

MATERIAL DESCRIPTION

Project No. 843536 **Client:** EMCON/OWT

Project: RICHARDSON HILL RD

• **Source:** **Sample No.:** WP051904-1

Remarks:

Tested by KP
Entered by KH
Checked by RSA

COMPACTION TEST REPORT

EMCON/OWT, Inc.

Date: 5-21-04

EMCON/OWT, INC.	MOISTURE CONTENTS TEST METHOD ASTM D-2216

CLIENT:	SHAW E & I	DATE:	21-May-04
PROJECT:	RICHARDSON HILL RD LF	PROJECT #	843536

HOLE #/ SAMPLE #	WP05-19-04-1	WP05-19-04-2	WP05-19-04	BUCKET-1	
DEPTH			COOLER	BAG	
WET WGT. + TARE (gms.)	491.0	570.0	238.0	199.4	
DRY WGT. + TARE (gms.)	457.2	536.5	229.7	185.5	
WGT. WATER (gms.)	33.8	33.5	8.3	13.9	0.0
TARE (gms.)	8.2	8.3	7.9	8.3	
DRY WGT. (gms.)	449.0	528.2	221.8	177.2	0.0
MOISTURE CONTENT	7.5%	6.3%	3.7%	7.8%	

o.k. NATURAL MOISTURE CONTENT

HOLE #/ SAMPLE #					
DEPTH					
WET WGT. + TARE (gms.)					
DRY WGT. + TARE (gms.)					
WGT. WATER (gms.)	0.00	0.00	0.00	0.00	0.00
TARE (gms.)					
DRY WGT. (gms.)	0.00	0.00	0.00	0.00	0.00
MOISTURE CONTENT					

Performed by: M.S. Entered by: K.H. Checked by: R.S.A.

FORM 1
PCB ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
WP052404

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C0474

Matrix: (soil/water) SOIL Lab Sample ID: C0474-01A

Sample wt/vol: 30.1 (g/mL) G Lab File ID: E1E6554F

% Moisture: 7 decanted: (Y/N) N Date Received: 05/25/04

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/25/04

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/26/04

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	35	U
11104-28-2	Aroclor-1221	35	U
11141-16-5	Aroclor-1232	35	U
53469-21-9	Aroclor-1242	35	U
12672-29-6	Aroclor-1248	35	U
11097-69-1	Aroclor-1254	35	U
11096-82-5	Aroclor-1260	35	U

HOLD
Dam.

AMPHENOL CORPORATION

Richardson Hill Road Landfill
Construction of Earthwork Activities
Contract No.

Shaw Environmental
Project # 843536

RECEIVED
JUN 25 2004

LETTER OF TRANSMITTAL

Transmittal No.: 125 Date Submitted: 6/25/04

Section No.: 02223 3.03 Table-1, and 02260 2.02 2, 3, and 4.

Resubmittal:

Description: – Extraction trench work platform and barrier protection material sample test results for:

- sieve analysis
- modified Proctor test
- PCB analysis
- natural moisture content
- permeability

Material supplied by Clark for second 5000 yards of work platform construction.

Deviations: _____

_____

6/25/04
Submitted by/date

Status: (circle one) 1. Approved as Submittal 2. Approved as Noted
3. Returned for Corrections 4. Resubmit (not Approved)

Comments:

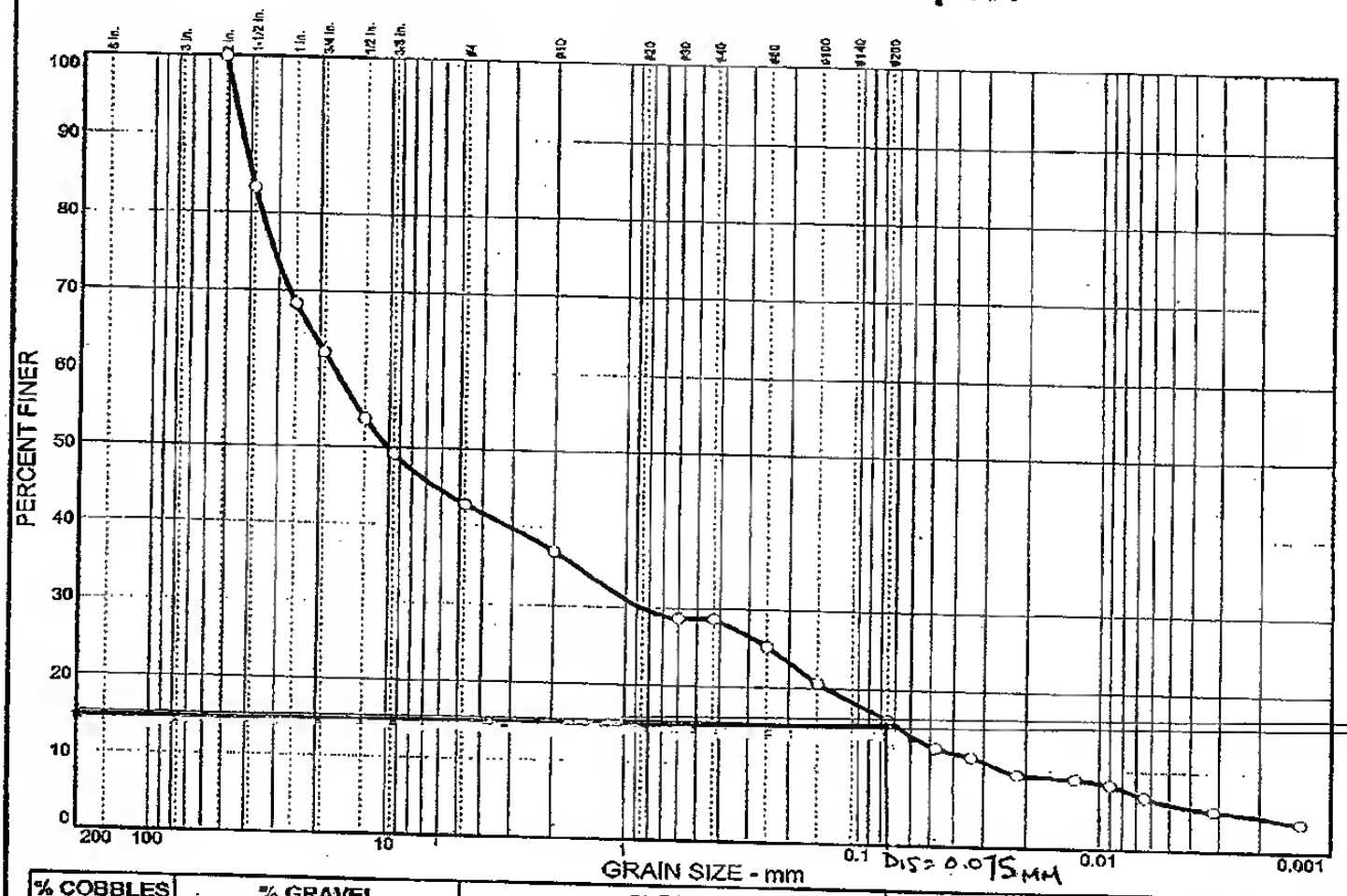
_____

_____

_____

Signed by/date

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	57.2	26.7	10.1	6.0

LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
		39.4	17.2	10.1	0.875	0.0655	0.0250	1.79	687.99

MATERIAL DESCRIPTION	USCS	AASHTO

Project No. 843536 **Client:** EMCON/OWT

Project: RICHARDSON HILL RD

○ **Source:**

Sample No.: CKWPBP-061504 (CLARK'S BARRIER PROTECTION MATERIAL)

Particle Size Distribution Report

EMCON/OWT, Inc.

Remarks:

○ Moisture Content = 6.3%

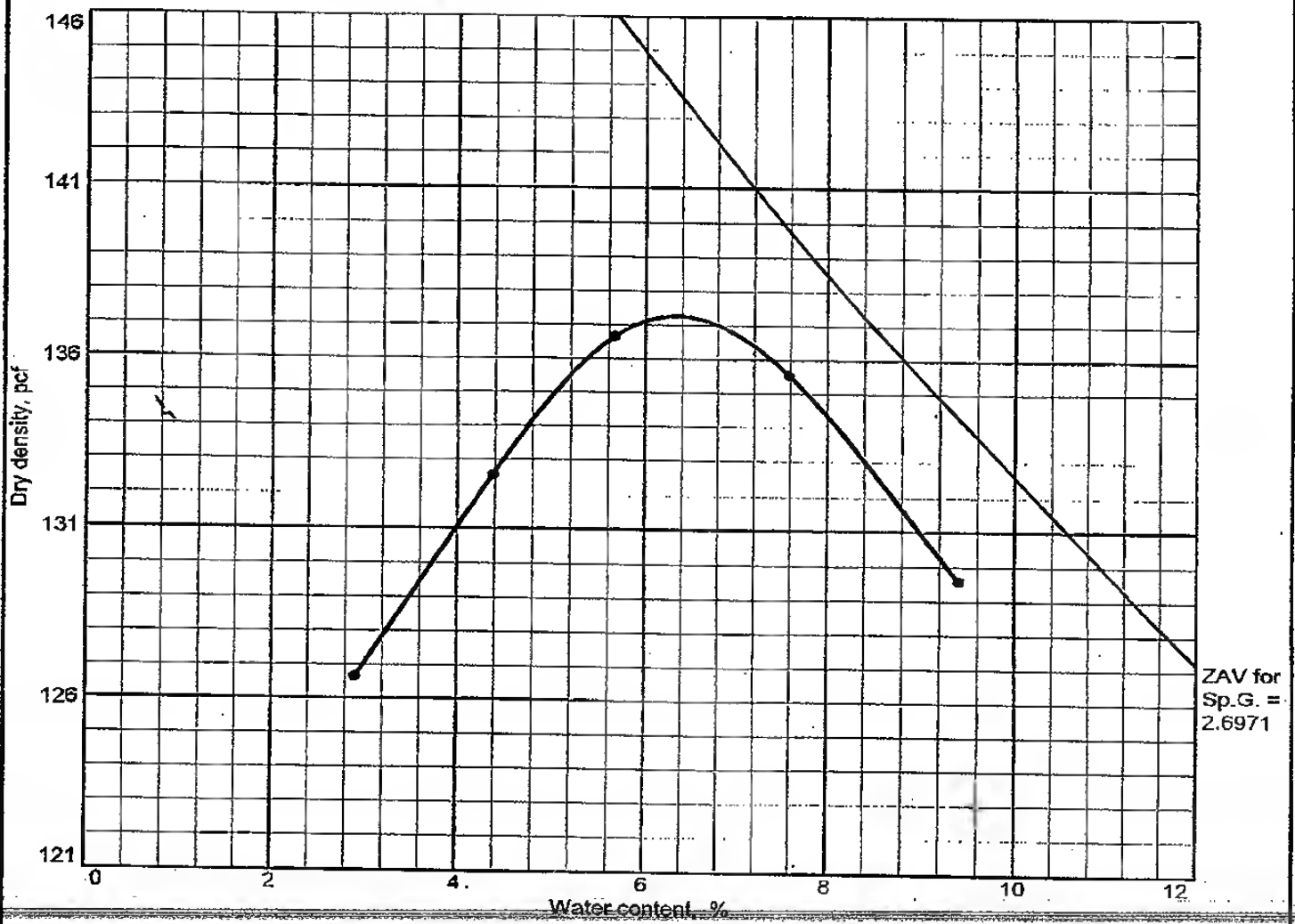
Tested by MS

Entered by KH

Checked by RSA

Date: 6-22-04

COMPACTION TEST REPORT



Test specification: ASTM D 1557-91 Procedure C Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
				2.6971				

TEST RESULTS

Maximum dry density = 137.3 pcf

Optimum moisture = 6.3 %

MATERIAL DESCRIPTION

Project No. 843536 **Client:** EMCON/OWT

Project: RICHARDSON HILL RD

Source: **Sample No.:** CKWPBP-061504

Remarks:
Tested by KP
Entered by KH
Checked by RSA

COMPACTION TEST REPORT

EMCON/OWT, Inc.

Date: 6-22-04

EMCON/OWT INC.

PERMEABILITY TEST BY TRIAXIAL CELL WITH BACK PRESSURE

Constant Head Method (ASTM D5084)

Project: RICHARDSON HILL RD LANDFILL Proj. No. 843536

Sample: CKWPBP-061504 Date: 6-24-04

Remarks: -3/8" Material recompacted in a split mold

Tested by: K.H.
Entered by: K.H.
Checked by: R.S.A.

Cell 3
Panel 4

Dimensions of Specimen:

	Length (Inches)		Diameter (Inches)
1.	4.110	1.	2.857
2.	4.110	2.	2.862
3.	4.110	3.	2.860
4.	4.110	4.	2.840
5.	4.114	5.	2.844

Weight of Specimen:

Initial Weight 908.3 Grams
2.001 Lbs.

Final Weight 970.0 Grams
2.137 Lbs.

Dry Weight 857.4 Grams
1.889 Lbs.

Avg. 4.111 In Ave. 2.853 In
10.441 CM 7.246 CM

Area 6.391 In² 41.232 CM²

Volume 26.272288 Cu. In. 0.0152039 Cft.

Moisture Content:
Initial 5.94 %
Final 13.13 %

Density, Wet Initial 131.70 pcf

Density, Dry 124.32 pcf

Density, Wet Final: 140.65 pcf

Back Pressure: 90 psi

Eff. Confining Pressure 0.5 tsf

Specific Gravity 2.6971

Saturation: 100.1 %

$$K_{20} = \frac{Q \times L \times R_t}{h \times A \times t}$$

	Trial 1	Trial 2	Trial 3	Trial 4
Q cc	0.31	0.26	0.26	0.20
L cms	10.441	10.441	10.441	10.441
Rt (Temp)	1.000	1.000	1.000	1.000
h cms	66.40	66.40	66.40	66.40
A Sq. cms	41.232	41.232	41.232	41.232
t Sec.	208	186	189	151
K 20 cm/sec	5.684E-06	5.331E-06	5.246E-06	5.051E-06

K 20 Avg. cm/sec 5.328E-06

EM\NY-GL\PERMTEST\rchrd-061504

FORM 1
PCB ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
CKWPBP
~~(CKW)~~
061504

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C0568

Matrix: (soil/water) SOIL Lab Sample ID: C0568-01A

Sample wt/vol: 30.0 (g/mL) G Lab File ID: E1E6929F

% Moisture: 8 decanted: (Y/N) N Date Received: 06/16/04

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 06/16/04

Concentrated Extract Volume: 10000(uL) Date Analyzed: 06/16/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	36	U
11104-28-2	Aroclor-1221	36	U
11141-16-5	Aroclor-1232	36	U
53469-21-9	Aroclor-1242	36	U
12672-29-6	Aroclor-1248	36	U
11097-69-1	Aroclor-1254	36	U
11096-82-5	Aroclor-1260	36	U

AMPHENOL CORPORATION

Richardson Hill Road Landfill
Construction of Earthwork Activities
Contract No.

Shaw Environmental
Project # 843536

RECEIVED
JUL 09 2004

LETTER OF TRANSMITTAL

Transmittal No.: 130

Date Submitted: 7/9/04

Section No.: 02223 3.03 Table-1, and 02260 2.02 2, 3, and 4.

Resubmittal:

Description: – Extraction trench work platform and barrier protection material sample test results for:

- sieve and hydrometer analysis
- modified Proctor test
- PCB analysis
- natural moisture content
- permeability

Material supplied by Clark for third 5000 yards of work platform construction.

Deviations:

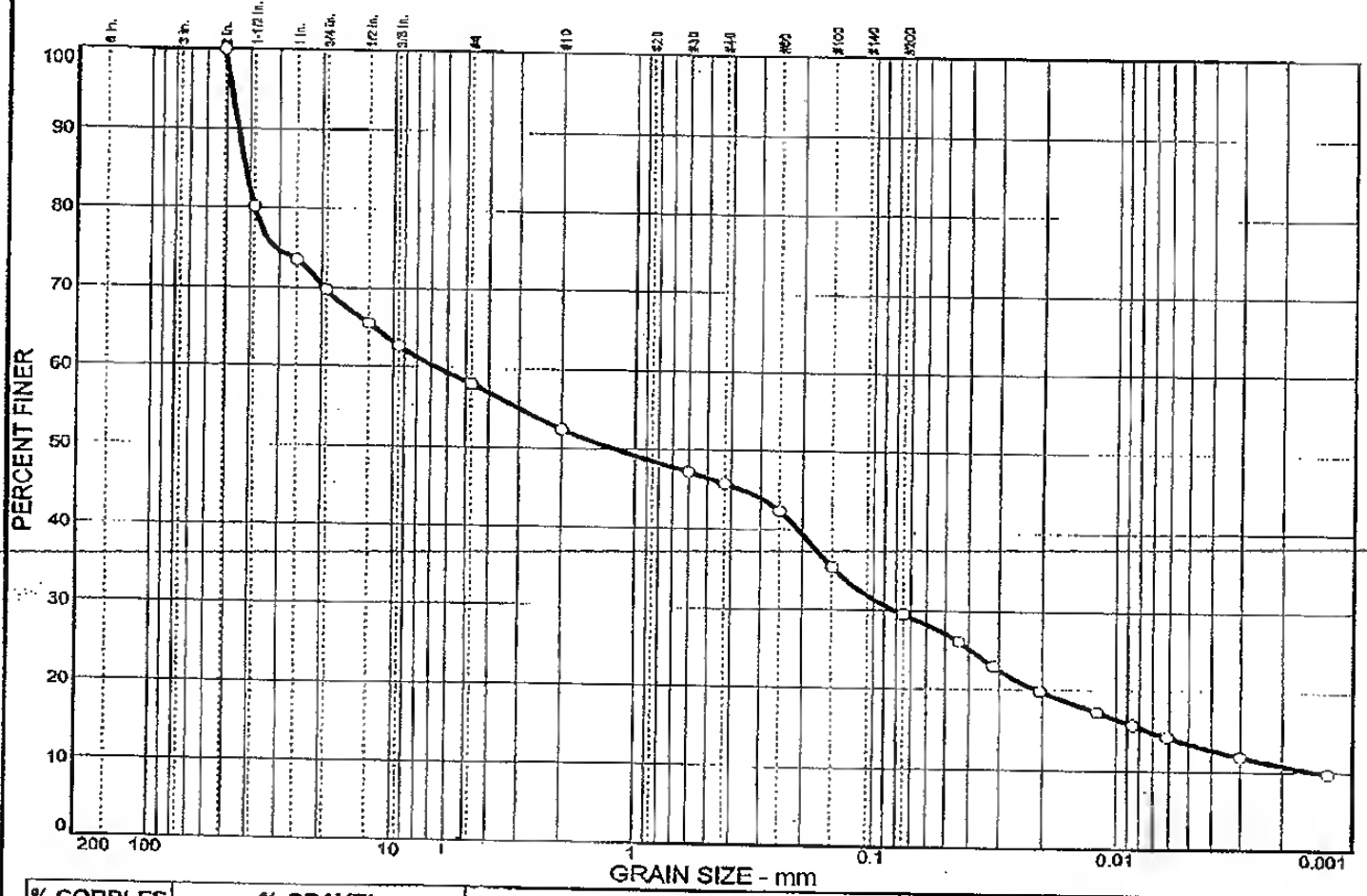
7/9/04
Submitted by/date

Status: (circle one) 1. Approved as Submittal 2. Approved as Noted
3. Returned for Corrections 4. Resubmit (not Approved)

Comments:

Signed by/date

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	42.0	28.5	16.1	13.4

LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_C	C_u
		41.6	6.62	1.23	0.0817	0.0074	0.0014	0.70	4567.49

MATERIAL DESCRIPTION	USCS	AASHTO
○ Weak Red		

Project No. 843536 **Client:** EMCON/OWT

Project: RICHARDSON HILL RD

○ **Source:** **Sample No.:** CKWPBP-062604

Remarks:
○ Moisture Content = 7.6%
Tested by MS
Entered by KH
Checked by RSA

Particle Size Distribution Report

EMCON/OWT, Inc.

Date: 7-6-04

EMCON/OWT INC.

PERMEABILITY TEST BY TRIAXIAL CELL WITH BACK PRESSURE

Constant Head Method (ASTM D5084)

Project: RICHARDSON HILL RD LANDFILL Proj. No. 843536 Tested by: K.H.
Entered by: K.H.
Sample: CKWPBP-062604 Date: 7-5-04 Checked by: R.S.A.

Remarks: -3/4" material recompacted in a split mold

Cell 15
Panel 3

Dimensions of Specimen:

	Length (Inches)		Diameter (Inches)
1.	4.110	1.	2.860
2.	4.107	2.	2.862
3.	4.110	3.	2.847
4.	4.105	4.	2.850
5.	4.105	5.	2.845

Weight of Specimen:

Initial Weight	898.8	Grams
	1.980	Lbs.
Final Weight	954.9	Grams
	2.103	Lbs.
Dry Weight	838.1	Grams
	1.846	Lbs.

Avg. 4.107 In Avg. 2.853 In
10.433 CM 7.246 CM

Area 6.392 In² 41.238 CM²

Volume 26.254239 Cu. In. 0.0151934 Cft.

Density, Wet Final: 138.56 pcf

Back Pressure: 90 psi

Specific Gravity 2.7243

Saturation: 95.4 %

Moisture Content:
Initial 7.24 %
Final 13.94 %

Density, Wet Initial 130.42 pcf

Density, Dry 121.61 pcf

Effft. Confining Pressure 0.5 tsf

$K_{20} = \frac{Q \times L \times Rt}{h \times A \times t}$

	Trial 1	Trial 2	Trial 3	Trial 4
Q cc	0.20	0.20	0.20	0.20
L cms	10.433	10.433	10.433	10.433
Rt (Temp)	1.000	1.000	1.000	1.000
h cms	52.33	52.33	52.33	52.33
A Sq. cms	41.238	41.238	41.238	41.238
t Sec.	64	66	67	69
K 20 cm/sec	1.511E-05	1.465E-05	1.443E-05	1.401E-05

K 20 Avg. cm/sec 1.455E-05

EM\NY-G1\PERMTEST\rchrd-062604

FORM 1
PCB ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
CKWPBP062604

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C0636

Matrix: (soil/water) SOIL Lab Sample ID: C0636-01A

Sample wt/vol: 30.0 (g/mL) G Lab File ID: E2D9838F

% Moisture: 9 decanted: (Y/N) N Date Received: 06/29/04

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:06/29/04

Concentrated Extract Volume: 10000(uL) Date Analyzed: 06/30/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	36	U
11104-28-2	Aroclor-1221	36	U
11141-16-5	Aroclor-1232	36	U
53469-21-9	Aroclor-1242	36	U
12672-29-6	Aroclor-1248	36	U
11097-69-1	Aroclor-1254	36	U
11096-82-5	Aroclor-1260	36	U

F-13

WORK PLATFORM COMPACTION TEST RESULTS

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607)898-9767
(607)898-9176 fax

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill **DATE:** July 2, 2004
CLIENT: Parsons **REPORT NO.:** 20013S-71-0704
TEST METHOD: Nuclear Density Gauge **REPRESENTATIVE:** T. Giamichael
MATERIAL TYPE/SOURCE: Brown cmf GRAVEL, some cmf SAND, little SILT/CLAY.
WEATHER: Sunny **TEMPERATURE:** °F

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Bill Bingham of Parsons was informed of today's test results.

RESULTS:

FG= Finish Grade

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Platform 11 + 54, center	FG	5.6	5.5	139.3	140.4	99.2	90.0
2	Platform 11 + 0, center	FG	5.5	5.5	139.6	140.4	99.4	90.0
3	Platform 10 + 50, center	FG	5.4	5.5	138.8	140.4	98.9	90.0
4	Platform 10 + 0, center	FG	5.8	5.5	138.3	140.4	98.5	90.0
5	Platform 9 + 50, center	FG	7.0	5.5	130.4	140.4	92.9	90.0
6	Platform 9 + 0, center	FG	6.7	5.5	128.9	140.4	91.8	90.0
7	Platform 8 + 50, center	FG	5.1	5.5	136.9	140.4	97.5	90.0
8	Platform 8 + 0, center	FG	5.5	5.5	136.1	140.4	96.9	90.0
9	Platform 7 + 50, center	FG	5.4	5.5	138.2	140.4	98.4	90.0
10	Platform 7 + 0, center	FG	5.9	5.5	135.4	140.4	96.4	90.0
11	Platform 6 + 50, center	FG	6.0	5.5	135.0	140.4	96.1	90.0
12	Platform 6 + 0, center	FG	5.9	5.5	138.0	140.4	98.3	90.0
13	Platform 5 + 50, center	FG	6.0	5.5	138.3	140.4	98.5	90.0
14	Platform 5 + 0, center	FG	6.9	5.5	138.4	140.4	98.6	90.0
15	Platform 4 + 50, center	FG	5.7	5.5	141.0	140.4	100+	90.0
16	Platform 4 + 0, center	FG	6.1	5.5	136.9	140.4	97.5	90.0
17	Platform 3 + 50, center	FG	6.1	5.5	133.9	140.4	95.4	90.0
18	Platform 3 + 0, center	FG	7.1	5.5	132.5	140.4	94.4	90.0
19	Platform 2 + 50, center	FG	8.0	5.5	132.5	140.4	94.4	90.0
20	Platform 2 + 0, center	FG	7.4	5.5	133.4	140.4	95.0	90.0
21	Platform 1 + 50, center	FG	6.5	5.5	129.6	140.4	92.3	90.0
22	Platform 1 + 0, center	FG	6.6	5.5	129.5	140.4	92.2	90.0
23	Platform 0 + 50, center	FG	5.9	5.5	129.7	140.4	92.4	90.0
24	Platform 0 + 0, center	FG	7.2	5.5	130.0	140.4	92.6	90.0

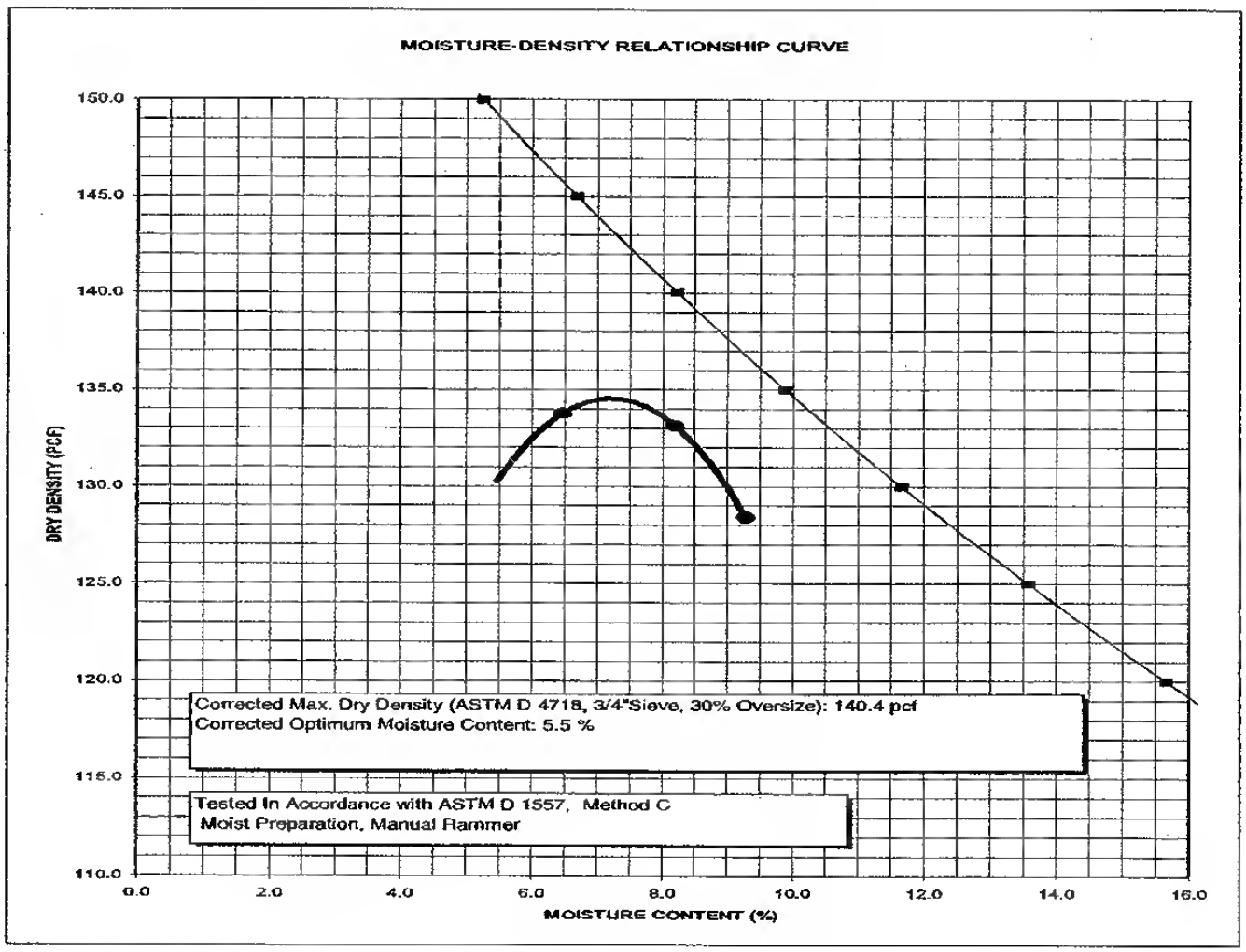
CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

LABORATORY TEST REPORT

CLIENT: Parsons
PROJECT: Richardson Hill Landfill
REPORT NO.: 20013S-72-0704
SAMPLE NO.: EL-514
SAMPLE LOCATION: Working Platform
DATE PICKED UP: June 25, 2004
SOIL CLASSIFICATION: Brown cmf GRAVEL, some cmf SAND, little SILT/CLAY



CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607)898-9767
(607)898-9176 fax

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill **DATE:** July 1, 2004
CLIENT: Parsons **REPORT NO.:** 20013S-70-0704
TEST METHOD: Nuclear Density Gauge **REPRESENTATIVE:** T. Giamichael
MATERIAL TYPE/SOURCE: Brown cmf GRAVEL, some SILT/CLAY, some cmf SAND.
WEATHER: Sunny **TEMPERATURE:** °F

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Bill Bingham of Parsons was informed of today's test results.

RESULTS:

FG= Finish Grade

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Platform 4 + 0, center	1759	9.0	5.9	128.5	134.1	95.8	90.0
2	Platform 3 + 50, center	1759	8.5	5.9	129.9	134.1	96.9	90.0
3	Platform 3 + 0, 5' east	1759	8.7	5.9	129.4	134.1	96.5	90.0
4	Platform 2 + 50, center	1759	8.4	5.9	129.7	134.1	96.7	90.0
5	Platform 2 + 0, center	1759	8.9	5.9	125.9	134.1	93.9	90.0
6	Platform 1 + 50, 10' east	1758.5	8.6	5.9	127.3	134.1	94.9	90.0
7	Platform 1 + 0, 5' east	1758.5	8.0	5.9	130.5	134.1	97.3	90.0
8	Platform 4 + 0, center	FG	9.0	5.9	127.7	134.1	95.3	90.0
9	Platform 3 + 50	FG	8.7	5.9	128.5	134.1	95.8	90.0
10	Platform 3 + 0, center	FG	8.9	5.9	127.8	134.1	95.3	90.0
11	Platform 2 + 50, center	FG	8.5	5.9	131.6	134.1	98.1	90.0
12	Platform 2 + 0, center	FG	7.6	5.9	134.0	134.1	99.9	90.0
13	Platform 1 + 5 0, center	1759.5	7.8	6.9	132.8	135.2	98.2	90.0
14	Platform 1 + 0, center	1759	9.8	6.9	130.1	135.2	96.3	90.0
15	Platform 1 + 5 0, center	1759	8.8	6.9	132.1	135.2	97.7	90.0
16	Platform 0 + 0, center	1759	8.6	6.9	130.5	135.2	96.5	90.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607)898-9767
(607)898-9176 fax

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill **DATE:** June 30, 2004
CLIENT: Parsons **REPORT NO.:** 20013S-69-0604
TEST METHOD: Nuclear Density Gauge **REPRESENTATIVE:** T. Giamichael
MATERIAL TYPE/SOURCE: Brown cmf GRAVEL, some SILT/CLAY, some cmf SAND.
WEATHER: Partly sunny **TEMPERATURE:** °F

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Bill Bingham of Parsons was informed of today's test results.

RESULTS:

FG= Finish Grade

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Platform 2 + 0, center	1758	8.6	5.9	134.6	134.1	100+	90.0
2	Platform 1 + 50, center	1758	10.5	5.9	129.6	134.1	96.7	90.0
3	Platform 1 + 0, center	1758	9.7	5.9	131.4	134.1	98.0	90.0
4	Platform 0 + 50, center	1758	9.1	5.9	133.1	134.1	99.3	90.0
5	Platform 4 + 0, center	1758.5	6.0	5.9	130.0	134.1	96.9	90.0
6	Platform 3 + 50, center	1758.5	7.9	5.9	126.2	134.1	94.1	90.0
7	Platform 3 + 0, center	1758	7.2	5.9	130.7	134.1	97.5	90.0
8	Platform 2 + 50, 5' east	1758.5	7.8	5.9	130.4	134.1	97.3	90.0
9	Platform 2 + 0, 5' east	1758	7.7	5.9	129.7	134.1	96.7	90.0
10	Platform 1 + 50, 10' east	1758.5	6.2	5.9	135.1	134.1	100+	90.0
11	Platform 1 + 0, 10' east	1758.5	8.4	5.9	130.3	134.1	97.1	90.0
12	Platform 0 + 50, 5' east	1758.5	7.4	5.9	130.7	134.1	97.4	90.0
13	Platform 0 + 0	1758.5	8.3	5.9	131.7	134.1	98.2	90.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607)898-9767
(607)898-9176 fax

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill **DATE:** June 29, 2004
CLIENT: Parsons **REPORT NO.:** 20013S-68-0604
TEST METHOD: Nuclear Density Gauge **REPRESENTATIVE:** T. Giamichael
MATERIAL TYPE/SOURCE: Brown cmf GRAVEL, some SILT/CLAY, some cmf SAND.
WEATHER: Overcast **TEMPERATURE:** °F

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Bill Bingham of Parsons was informed of today's test results.

RESULTS:

FG= Finish Grade

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Platform 2 + 50, center	1758.5	7.7	5.9	132.0	134.1	98.4	90.0
2	Platform 2 + 0, center	1758.5	7.8	5.9	134.0	134.1	100.0	90.0
3	Platform 1 + 50, 10' east	1758.5	9.8	5.9	128.9	134.1	96.1	90.0
4	Platform 1 + 0, 10' east	1758.5	8.5	5.9	132.0	134.1	98.4	90.0
5	Platform 0 + 50, 10' east	1758.5	9.6	5.9	131.5	134.1	98.1	90.0
6	Platform 4 + 0, 10' east	1759.0	7.8	5.9	135.1	134.1	100+	90.0
7	Platform 4 + 50, 10' east	FG	8.8	5.9	133.4	134.1	99.5	90.0
8	Platform 5 + 0, 25' east	FG	9.6	5.9	130.0	134.1	97.0	90.0
9	Platform 5 + 50, 10' east	FG	8.6	5.9	131.7	134.1	98.2	90.0
10	Platform 4 + 50, center	FG	7.8	5.9	129.2	134.1	96.3	90.0
11	Platform 4 + 0, center	FG	8.7	5.9	130.8	134.1	97.6	90.0
12	Platform 3 + 50, center	1759.0	8.4	5.9	129.2	134.1	96.4	90.0
13	Platform 3 + 0, center	1759.0	7.2	5.9	128.8	134.1	96.0	90.0
14	Platform 2 + 50, center	1759.0	8.0	5.9	131.5	134.1	98.0	90.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607)898-9767
(607)898-9176 fax

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill **DATE:** June 28, 2004
CLIENT: Parsons **REPORT NO.:** 20013S-67-0604
TEST METHOD: Nuclear Density Gauge **REPRESENTATIVE:** T. Giamichael
MATERIAL TYPE/SOURCE: Brown cmf GRAVEL, some SILT/CLAY, some cmf SAND.
WEATHER: Overcast **TEMPERATURE:** °F

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Bill Bingham of Parsons was informed of today's test results.

RESULTS:

FG= Finish Grade

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Platform 4 + 0, center	1758.5	5.6	5.9	132.8	134.1	99.0	90.0
2	Platform 3 + 50, center	1758.5	8.3	5.9	130.2	134.1	97.0	90.0
3	Platform 3 + 0, center	1758.5	7.2	5.9	137.0	134.1	100+	90.0
4	Platform 11 + 54, 25' east	FG	8.2	5.9	131.2	134.1	97.9	90.0
5	Platform 11 + 0, 25' east	FG	8.1	5.9	132.4	134.1	98.7	90.0
6	Platform 10 + 50, 25' east	FG	8.9	5.9	128.0	134.1	95.4	90.0
7	Platform 10 + 0, 25' east	FG	8.7	5.9	127.9	134.1	95.4	90.0
8	Platform 9 + 50, 25' east	FG	7.7	5.9	131.7	134.1	98.2	90.0
9	Platform 9 + 0, 25' east	FG	8.0	5.9	132.3	134.1	98.6	90.0
10	Platform 8 + 50, center	FG	7.9	5.9	129.0	134.1	96.2	90.0
11	Platform 8 + 0, center	1758.5	8.2	5.9	130.2	134.1	97.1	90.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607)898-9767
(607)898-9176 fax

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill **DATE:** June 26, 2004
CLIENT: Parsons **REPORT NO.:** 20013S-66-0604
TEST METHOD: Nuclear Density Gauge **REPRESENTATIVE:** T. Giamichael
MATERIAL TYPE/SOURCE: Brown cmf GRAVEL, some SILT/CLAY, somecmf SAND.
WEATHER: Overcast **TEMPERATURE:** °F

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Bill Bingham of Parsons was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Platform 11 + 54, center	1758.5	7.9	6.3	131.1	137.3	95.5	90.0
2	Platform 11 + 0, center	1758.5	8.6	6.3	132.1	137.3	96.2	90.0
3	Platform 10 + 50, center	1758.5	8.3	6.3	132.7	137.3	96.6	90.0
4	Platform 10 + 0, center	1758.5	8.8	6.3	132.1	137.3	96.2	90.0
5	Platform 9 + 50, center	1758.5	8.8	6.3	132.1	137.3	96.2	90.0
6	Platform 9 + 0, center	FG	8.6	6.3	131.3	137.3	95.6	90.0
7	Platform 11 + 54, center	FG	9.4	6.3	130.0	137.3	94.7	90.0
8	Platform 11 + 0, center	FG	7.1	6.3	132.7	137.3	96.6	90.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607)898-9767
(607)898-9176 fax

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill **DATE:** June 25, 2004
CLIENT: Parsons **REPORT NO.:** 20013S-65-0604
TEST METHOD: Nuclear Density Gauge **REPRESENTATIVE:** T. Giamichael
MATERIAL TYPE/SOURCE: Brown cmf GRAVEL, some SILT/CLAY, some cmf SAND.
WEATHER: Overcast **TEMPERATURE:** °F

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Bill Bingham of Parsons was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Platform 11 + 54, center	1757.5	7.5	6.3	133.0	137.3	96.9	90.0
2	Platform 11 + 0, center	1757.5	7.2	6.3	134.0	137.3	97.6	90.0
3	Platform 10 + 50, 5' east	1757.5	8.6	6.3	133.8	137.3	97.5	90.0
4	Platform 10 + 0, 5' east	1757.5	7.5	6.3	137.2	137.3	99.9	90.0
5	Platform 9 + 50, center	1757.5	8.0	6.3	132.5	137.3	96.5	90.0
6	Platform 11 + 54, center	1758	8.4	6.3	133.8	137.3	97.4	90.0
7	Platform 11 + 0, center	1758	7.9	6.3	132.3	137.3	96.4	90.0
8	Platform 9 + 0, center	1757.5	8.1	6.3	133.5	137.3	97.3	90.0

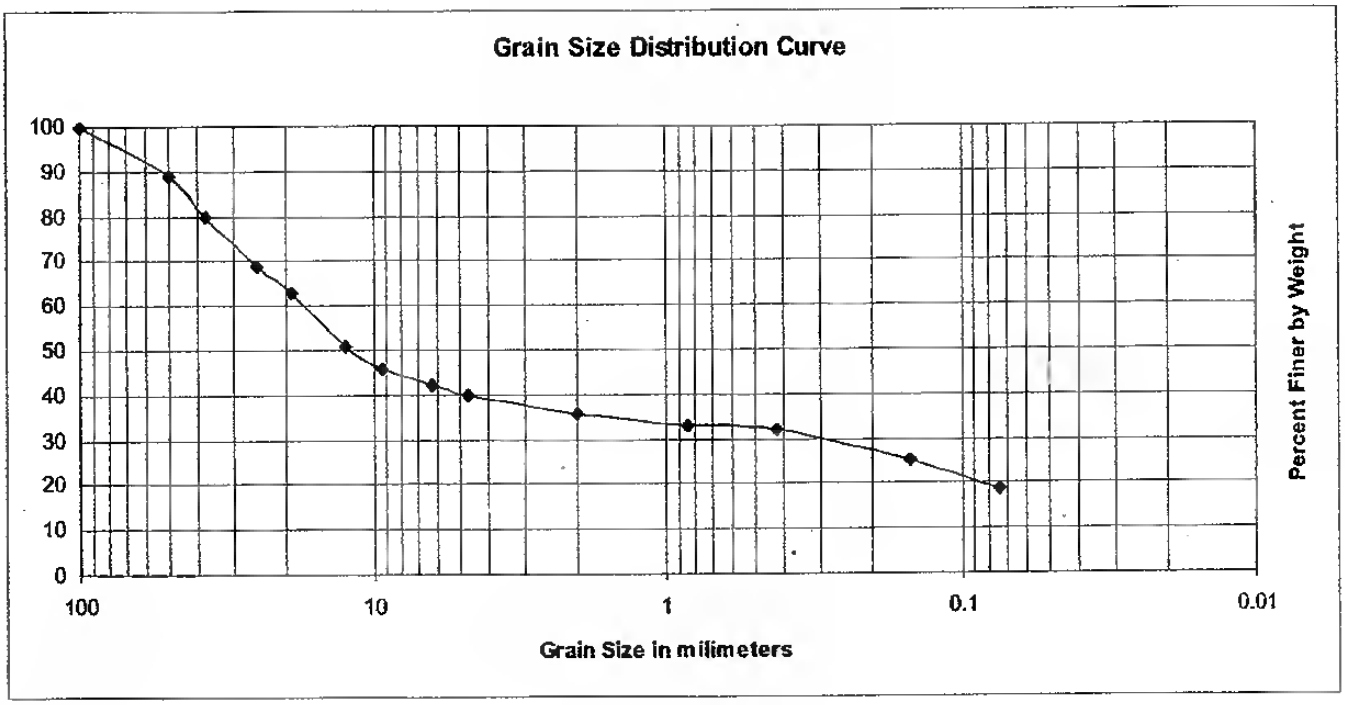
CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

LABORATORY TEST REPORT

CLIENT: Parsons
PROJECT: Richardson Hill Landfill
REPORT NO.: 20013S-72-0704
SAMPLE NO.: EL-514
SAMPLE LOCATION: Working Platform
DATE PICKED UP: June 25, 2004
SOIL CLASSIFICATION: Brown cmf GRAVEL, some cmf SAND, little SILT/CLAY



Sieve Size	Sample		Sieve Size	Sample
4"	100		#4	39.9
2"	88.8		#10	35.8
¾"	62.8		#40	31.7
½"	51.4		#100	24.9
¼"	41.7		#200	19.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607)898-9767
(607)898-9176 fax

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill **DATE:** June 24, 2004
CLIENT: Parsons **REPORT NO.:** 20013S-64-0604
TEST METHOD: Nuclear Density Gauge **REPRESENTATIVE:** T. Giamichael
MATERIAL TYPE/SOURCE: Brown cmf GRAVEL, some SILT/CLAY, some cmf SAND.
WEATHER: sunny **TEMPERATURE:** °F

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Bill Bingham of Parsons was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Platform 1 + 0, center	1757	7.3	6.3	132.3	137.3	96.4	90.0
2	Platform 1 + 50, center	1757	8.3	6.3	128.9	137.3	93.9	90.0
3	Platform 2 + 0, center	1757	6.9	6.3	137.7	137.3	100+	90.0
4	Platform 2 + 50, center	1757	7.8	6.3	133.9	137.3	97.5	90.0
5	Platform 3 + 0, center	1757.5	8.1	6.3	133.1	137.3	96.9	90.0
6	Platform 0 + 50, center	1757	6.8	6.3	136.4	137.3	99.3	90.0
7	Platform 0 + 0, center	1757	8.1	6.3	133.0	137.3	96.9	90.0
8	Platform 4 + 0, center	1757.5	8.3	6.3	132.8	137.3	96.7	90.0
9	Platform 4 +50, center	1757.5	7.2	6.3	133.8	137.3	97.4	90.0
10	Platform 3 + 50, center	1757.5	8.5	6.3	132.9	137.3	96.8	90.0
11	Platform 3 + 0, center	1757.5	8.6	6.3	130.2	137.3	94.8	90.0
12	Platform 2 + 50, center	1757.5	8.1	6.3	131.3	137.3	95.6	90.0
13	Platform 2 + 0, center	1757.5	6.2	6.3	137.0	137.3	99.8	90.0
14	Platform 1 +5 0, center	1757.5	8.1	6.3	132.9	137.3	96.8	90.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607)898-9767
(607)898-9176 fax

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill **DATE:** June 23, 2004
CLIENT: Parsons **REPORT NO.:** 20013S-63-0604
TEST METHOD: Nuclear Density Gauge **REPRESENTATIVE:** T. Giamichael
MATERIAL TYPE/SOURCE: Brown cmf GRAVEL, some SILT/CLAY, some cmf SAND.
WEATHER: sunny **TEMPERATURE:** °F

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Bill Bingham of Parsons was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Platform 9 + 50, 5' east	1757	7.5	6.3	140.9	137.3	100+	90.0
2	Platform 8 + 50, 5' east	1757	6.7	6.3	136.8	137.3	99.6	90.0
3	Platform 8 + 0, center	1757	7.1	6.3	137.7	137.3	100+	90.0
4	Platform 7 + 50, center	1757	6.4	6.3	135.7	137.3	98.8	90.0
5	Platform 4 + 0, 15' east	1757	5.8	6.3	133.8	137.3	97.4	90.0
6	Platform 3 + 50, 15' east	1757	6.4	6.3	136.4	137.3	99.3	90.0
7	Platform 3 + 0, 15' east	1757	6.2	6.3	134.7	137.3	98.1	90.0
8	Platform 2 + 50, center	1756.5	6.0	6.3	137.8	137.3	100+	90.0
9	Platform 2 + 0, center	1756.5	6.2	6.3	137.2	137.3	99.9	90.0
10	Platform 1 + 50, center	1756.5	6.5	6.3	129.6	137.3	94.4	90.0
11	Platform 1 + 0, 5' east	1756.5	8.2	6.3	137.0	137.3	99.8	90.0
12	Platform 0 + 50, 5' east	1756.5	6.1	6.3	137.5	137.3	100+	90.0
13	Platform 0 + 0, 5' east	1756.5	7.4	6.3	130.7	137.3	95.1	90.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607)898-9767
(607)898-9176 fax

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill **DATE:** June 22, 2004
CLIENT: Parsons **REPORT NO.:** 20013S-62-0604
TEST METHOD: Nuclear Density Gauge **REPRESENTATIVE:** T. Giamichael
MATERIAL TYPE/SOURCE: Brown cmf GRAVEL, some SILT/CLAY, and cmf SAND.
WEATHER: Overcast, light rain **TEMPERATURE:** °F

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

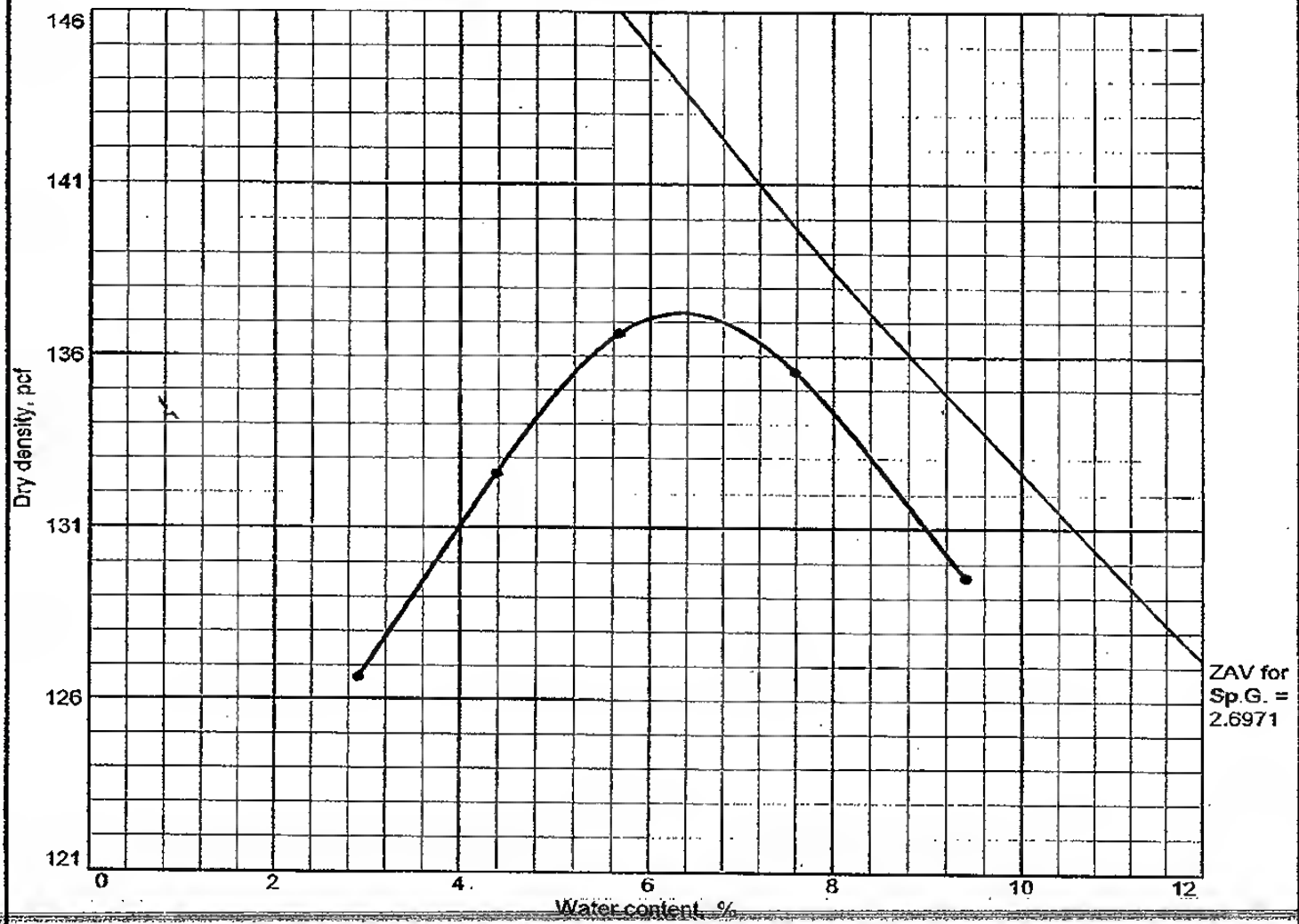
The test results show that the required percentage of compaction was achieved at the location and elevation of the test. Due to rain, further testing for this day was canceled.

Bill Bingham of Parsons was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Platform 9 + 50, 5' east	1756.5	6.0	5.9	137.7	134.1	100+	90.0
2	Platform 9 + 0, 5' east	1757	6.7	5.9	135.3	134.1	100+	90.0

COMPACTION TEST REPORT



Test specification: ASTM D 1557-91 Procedure C Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
				2.6971				

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 137.3 pcf Optimum moisture = 6.3 %	

Project No. 843536 **Client:** EMCON/OWT
Project: RICHARDSON HILL RD

• **Source:** **Sample No.:** CKWPBP-061504

Remarks:
Tested by KP
Entered by KH
Checked by RSA

COMPACTION TEST REPORT

EMCON/OWT, Inc.

Date: 6-22-04

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607)898-9767
(607)898-9176 fax

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill **DATE:** June 21, 2004
CLIENT: Parsons **REPORT NO.:** 20013S-61-0604
TEST METHOD: Nuclear Density Gauge **REPRESENTATIVE:** T. Giamichael
MATERIAL TYPE/SOURCE: Brown cmf GRAVEL, some SILT/CLAY, somecmf SAND.
WEATHER: Sunny **TEMPERATURE:** °F

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Bill Bingham of Parsons was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Deosity (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Platform 12 + 0, 10' east	1756	7.2	5.9	143.0	134.1	100+	90.0
2	Platform 11 + 54, 5' east	1756	7.9	5.9	133.6	134.1	99.6	90.0
3	Platform 11 + 54, 5' east	1756.5	7.7	5.9	134.6	134.1	100+	90.0
4	Platform 11 + 54	1756.5	6.8	5.9	132.2	134.1	98.6	90.0
5	Platform 12 + 0, 5' east	1756.5	7.4	5.9	129.6	134.1	96.7	90.0
6	Platform 10 + 50	1756.5	6.4	5.9	129.4	134.1	96.5	90.0
7	Platform 10 + 0, 20' east	1756.5	6.6	5.9	132.9	134.1	99.1	90.0
8	Platform 9 + 50, 15' east	1756.5	7.4	5.9	135.7	134.1	100+	90.0
9	Platform 11 + 54, 10' east	1757	7.0	5.9	132.0	134.1	98.4	90.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607)898-9767
(607)898-9176 fax

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill **DATE:** June 17, 2004
CLIENT: Parsons **REPORT NO.:** 20013S-60-0604
TEST METHOD: Nuclear Density Gauge **REPRESENTATIVE:** T. Giamichael
MATERIAL TYPE/SOURCE: Brown cmf SAND and GRAVEL, trace SILT.
WEATHER: Partly sunny **TEMPERATURE:** 80 °F

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Bill Bingham of Parsons was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Platform 4 + 0, 10' east	1758.5	8.0	6.6	133.1	137.7	96.1	90.0
2	Platform 3 + 0, 10' east	1755	6.3	6.6	133.2	137.7	96.7	90.0
3	Platform 2 + 0, 5' east	1754.5	8.1	6.6	130.1	137.7	94.5	90.0
4	Platform 2 + 50, 10' east	1755	8.1	6.6	128.0	137.7	93.0	90.0
5	Platform 1 + 50	1754	6.8	6.6	132.7	137.7	96.4	90.0
6	Platform 1 + 0	1754	7.2	6.6	125.3	137.7	91.0	90.0
7	Platform 0 + 50	1754	7.4	6.6	136.3	137.7	99.0	90.0
8	Platform 0 + 50, 20' east	1754	6.0	6.6	137.6	137.7	99.9	90.0
9	Platform 0 + 0, 10' east	1754	7.7	6.6	133.0	137.7	97.1	90.0

CME Associates, Inc.

209 Paru Road
Groton, New York 13073
(607)898-9767
(607)898-9176 fax

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill **DATE:** June 16, 2004
CLIENT: Parsons **REPORT NO.:** 20013S-59-0604
TEST METHOD: Nuclear Density Gauge **REPRESENTATIVE:** T. Giamichael
MATERIAL TYPE/SOURCE: Brown cmf SAND and GRAVEL, trace SILT.
WEATHER: **TEMPERATURE:** °F

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Bill Bingham of Parsons was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Platform 5 + 18, 5' E	1758.5	6.7	6.6	132.4	137.7	96.2	90.0
2	Platform 4 + 20, 10' E	1758.5	7.7	6.6	132.2	137.7	96.0	90.0
3	Platform 3 + 10, 10' E	1757	7.6	6.6	127.6	137.7	92.7	90.0
4	Platform 5 + 18	1759	8.3	6.6	128.0	137.7	92.9	90.0
5	Platform 6 + 0	1759	6.2	6.6	131.9	137.7	95.8	90.0
6	Platform 5 + 18	1759.5	8.7	6.6	133.6	137.7	97.0	90.0
7	Platform 4 + 50	1759	7.9	6.6	132.1	137.7	95.9	90.0
8	Platform 4 + 5, 15' E	1759	8.4	6.6	132.8	137.7	96.4	90.0
9	Platform 3 + 0, 10' E	1756.5	8.0	6.6	135.8	137.7	98.6	90.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607)898-9767
(607)898-9176 fax

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill **DATE:** June 15, 2004
CLIENT: Parsons **REPORT NO.:** 20013S-58-0604
TEST METHOD: Nuclear Density Gauge **REPRESENTATIVE:** T. Giamichael
MATERIAL TYPE/SOURCE: Brown cmf SAND and GRAVEL, trace SILT.
WEATHER: Sunny **TEMPERATURE:** 80 °F

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Bill Bingham of Parsons was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Platform 4 + 0, 10' E	1755	8.1	6.6	133.8	137.7	97.1	90.0
2	Platform 3 + 15, 10' E	1756	7.8	6.6	134.2	137.7	97.5	90.0
3	Platform 4 + 0, 10' E	1756	7.5	6.6	129.0	137.7	93.7	90.0
4	Platform 5 + 0, 15' E	1756	7.6	6.6	127.6	137.7	92.7	90.0
5	Platform 3 + 0, 15' E	1755	7.9	6.6	132.5	137.7	96.2	90.0
6	Platform 4 + 0, 15' E	1757		6.6	133.4	137.7	96.9	90.0
7	Platform 5+ 30, 15' E	1757		6.6	135.8	137.7	98.6	90.0
8	Platform 5 + 18, 10' E	1758		6.6	130.9	137.7	95.1	90.0
9	Platform 5 + 18, 10' E	1758.5		6.6	130.6	137.7	94.9	90.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607)898-9767
(607)898-9176 fax

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill **DATE:** June 14, 2004
CLIENT: Parsons **REPORT NO.:** 20013S-57-0604
TEST METHOD: Nuclear Density Gauge **REPRESENTATIVE:** T. Giamichael
MATERIAL TYPE/SOURCE: Brown cmf SAND and GRAVEL, trace SILT.
WEATHER: Sunny **TEMPERATURE:** °F

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Bill Bingham of Parsons was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Platform 4 + 0	1756	6.4	6.6	127.6	137.7	92.7	90.0
2	Platform ramp 4 + 0, 20' E	1751	6.5	6.6	131.1	137.7	95.2	90.0
3	Platform ramp 4 + 0, 20' E	1752	8.6	6.6	132.8	137.7	96.5	90.0
4	Platform ramp 5 + 0, 20' E	1752	6.4	6.6	126.8	137.7	92.1	90.0
5	Platform ramp 6 + 0	1756	6.3	6.6	129.8	137.7	94.2	90.0
6	Platform ramp 5 + 8, 15' E	1752	7.3	6.6	128.4	137.7	93.2	90.0
7	Platform ramp 4 + 0, 15' E	1753	7.6	6.6	127.1	137.7	92.3	90.0
8	Platform ramp 4 + 0	1754	8.0	6.6	133.7	137.7	97.1	90.0
9	Platform ramp 3 + 0	1754	5.9	6.6	128.1	137.7	93.0	90.0
10	Platform ramp 3 + 15	1755	7.3	6.6	135.1	137.7	98.1	90.0
11	Platform ramp 4 + 0, 15' E	1754.5	8.2	6.6	133.3	137.7	96.8	90.0
12	Platform ramp 4 + 40, 15'E	1754.5	8.5	6.6	130.0	137.7	94.4	90.0
13	Platform ramp 3 + 0, 15' E	1755	7.5	6.6	127.4	137.7	92.5	90.0
14	Platform ramp 4 + 10, 10'E	1755	7.6	6.6	131.7	137.7	95.6	90.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607)898-9767
(607)898-9176 fax

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill **DATE:** June 12, 2004
CLIENT: Parsons **REPORT NO.:** 20013S-56-0604
TEST METHOD: Nuclear Density Gauge **REPRESENTATIVE:** T. Giamichael
MATERIAL TYPE/SOURCE: Brown cmf SAND and GRAVEL, trace SILT.
WEATHER: Sunny **TEMPERATURE:** °F

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Bill Bingham of Parsons was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Work platform 11 + 54	1762	8.2	6.6	129.5	137.7	94.1	90.0
2	Work platform 11 + 0	1762	9.0	6.6	125.8	137.7	91.4	90.0
3	Work platform 10 + 0	1761	7.5	6.6	130.4	137.7	94.7	90.0
4	Work platform 10 + 50	1761	7.7	6.6	131.9	137.7	95.8	90.0
5	Work platform 12 + 0	1761	7.7	6.6	132.6	137.7	96.3	90.0
6	Work platform 5 + 18, 20' east	1754	8.4	6.6	129.6	137.7	94.1	90.0
7	Work platform 6 + 0, 20' east	1753	9.9	6.6	126.9	137.7	92.2	90.0
8	Work platform 5 + 18, 20' east	1753.5	9.3	6.6	127.6	137.7	92.7	90.0
9	Work platform 4 + 50, 20' east	1755	7.7	6.6	129.4	137.7	94.0	90.0
10	Work platform 5 + 0, 20'east	1755	9.9	6.6	127.7	137.7	92.7	90.0
11	Work platform 4 + 0, 20' east	1755	9.6	6.6	132.7	137.7	96.3	90.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607)898-9767
(607)898-9176 fax

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill **DATE:** June 11, 2004
CLIENT: Parsons **REPORT NO.:** 20013S-55-0604
TEST METHOD: Nuclear Density Gauge **REPRESENTATIVE:** T. Giamichael
MATERIAL TYPE/SOURCE: Brown cmf SAND and GRAVEL, trace SILT.
WEATHER: Sunny **TEMPERATURE:** 75 °F

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Bill Bingham of Parsons was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Work platform 8 + 0	1761	8.7	6.6	133.1	137.7	96.0	90.0
2	Work platform 8 + 8	1761	8.3	6.6	132.2	137.7	96.6	90.0
3	Work platform 9 + 0	1761	8.6	6.6	130.6	137.7	94.8	90.0
4	Work platform 9 + 25 10' east	1761	7.3	6.6	136.1	137.7	98.8	90.0
5	Work platform 10 +	1761	9.0	6.6	124.3	137.7	90.3	90.0
6	Work platform 10 + 50	1761	7.7	6.6	135.8	137.7	98.6	90.0
7	Work platform 11 + 0	1761	7.4	6.6	131.1	137.7	95.2	90.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607)898-9767
(607)898-9176 fax

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill **DATE:** June 10, 2004
CLIENT: Parsons **REPORT NO.:** 20013S-53-0604
TEST METHOD: Nuclear Density Gauge **REPRESENTATIVE:** T. Wheeler
MATERIAL TYPE/SOURCE: Brown cmf SAND and GRAVEL, trace SILT.
WEATHER: Cloudy, rain **TEMPERATURE:** 64 °F

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Bill Bingham of Parsons was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Work platform 8 + 0	1762	10.7	6.6	124.3	137.7	90.3	90.0
2	Work platform 9 + 0	1762	10.5	6.6	125.8	137.7	91.4	90.0
3	Work platform 10 + 0	1761	8.7	6.6	131.1	137.7	95.2	90.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607)898-9767
(607)898-9176 fax

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill **DATE:** June 9, 2004
CLIENT: Parsons **REPORT NO.:** 20013S-52-0604
TEST METHOD: Nuclear Density Gauge **REPRESENTATIVE:** T. Wheeler
MATERIAL TYPE/SOURCE: Brown cmf SAND and GRAVEL, trace SILT.
WEATHER: Partly cloudy **TEMPERATURE:** 73 °F

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Bill Bingham of Parsons was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Work platform 9 + 0	1760	10.9	6.6	126.4	137.7	91.8	90.0
2	Work platform 10 + 0	1758	9.2	6.6	125.4	137.7	91.1	90.0
3	Work platform 10 + 0	1759	11.0	6.6	124.4	137.7	90.3	90.0
4	Work platform 11 + 0	1759	9.3	6.6	128.4	137.7	93.2	90.0
5	Work platform 10 + 0	1760	9.7	6.6	128.2	137.7	93.1	90.0
6	Work platform 9 + 0	1761	9.5	6.6	128.7	137.7	93.4	90.0
7	Work platform 8 + 0	1761	10.7	6.6	126.3	137.7	91.7	90.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607)898-9767
(607)898-9176 fax

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill **DATE:** June 8, 2004
CLIENT: Parsons **REPORT NO.:** 20013S-51-0604
TEST METHOD: Nuclear Density Gauge **REPRESENTATIVE:** T. Wheeler
MATERIAL TYPE/SOURCE: Brown cmf SAND and GRAVEL, trace SILT.
WEATHER: clear **TEMPERATURE:** °F

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test. The Proctor Values of 137.7 at 6.6% were provided by Jeff Gauge, the Superintendent of Shaw.

Bill Bingham of Parsons was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Work platform 8 + 0	1756.28	5.4	5.5	137.4	143.0	96.1	90.0
2	Work platform 9 + 0	1756.28	6.0	5.5	134.5	143.0	94.1	90.0
3	Work platform 10 + 0	1754.00	8.0	5.5	129.0	143.0	90.2	90.0
4	Work platform 11 + 0	1754.00	7.8	5.5	131.0	143.0	91.6	90.0
5	Work platform 10 + 0	1755.00	9.1	5.5	129.4	143.0	90.5	90.0
6	Work platform 9 + 0	1757.28	9.7	5.5	128.6	143.0	90.0	90.0
7	Work platform 8 + 0	1757.28	9.3	5.5	130.6	143.0	91.3	90.0
8	Work platform 10 + 0	1756.00	10.2	6.6	127.1	137.7	92.3	90.0
9	Work platform 11 + 0	1756.00	10.5	6.6	127.6	137.7	92.6	90.0
10	Work platform 9 + 0	1758.00	11.2	6.6	125.1	137.7	90.8	90.0
10	Work platform 8 + 0	1758.00	11.3	6.6	126.0	137.7	91.5	90.0
12	Work platform 9 + 0	1759.00	10.1	6.6	128.8	137.7	93.5	90.0
13	Work platform 10 + 0	1757.00	11.5	6.6	124.3	137.7	90.3	90.0

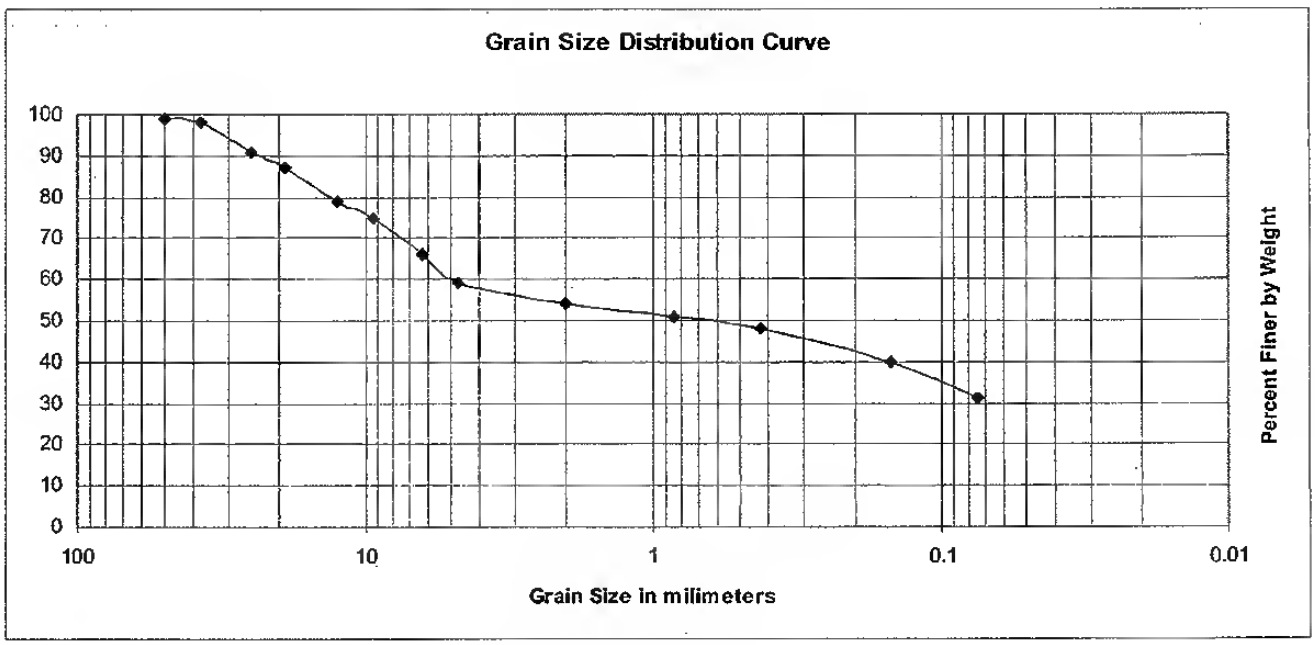
CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

LABORATORY TEST REPORT

CLIENT:	Parsons	**PROJECT:**	Richardson Hill Landfill
REPORT NO.:	20013S-54-0604	**SAMPLE NO.:**	IL-409
SAMPLE LOCATION:	Working Platform	**DATE PICKED UP:**	June 8, 2004
SOIL CLASSIFICATION:	Brown cmf GRAVEL, some SILT/CLAY, some cmf SAND		



Sieve Size	Sample	Sieve Size	Sample
2"	100	#4	59.2
1"	91.3	#10	54.0
3/4"	68.5	#40	48.2
1/2"	78.9	#100	39.8
1/4"	66.0	#200	31.4

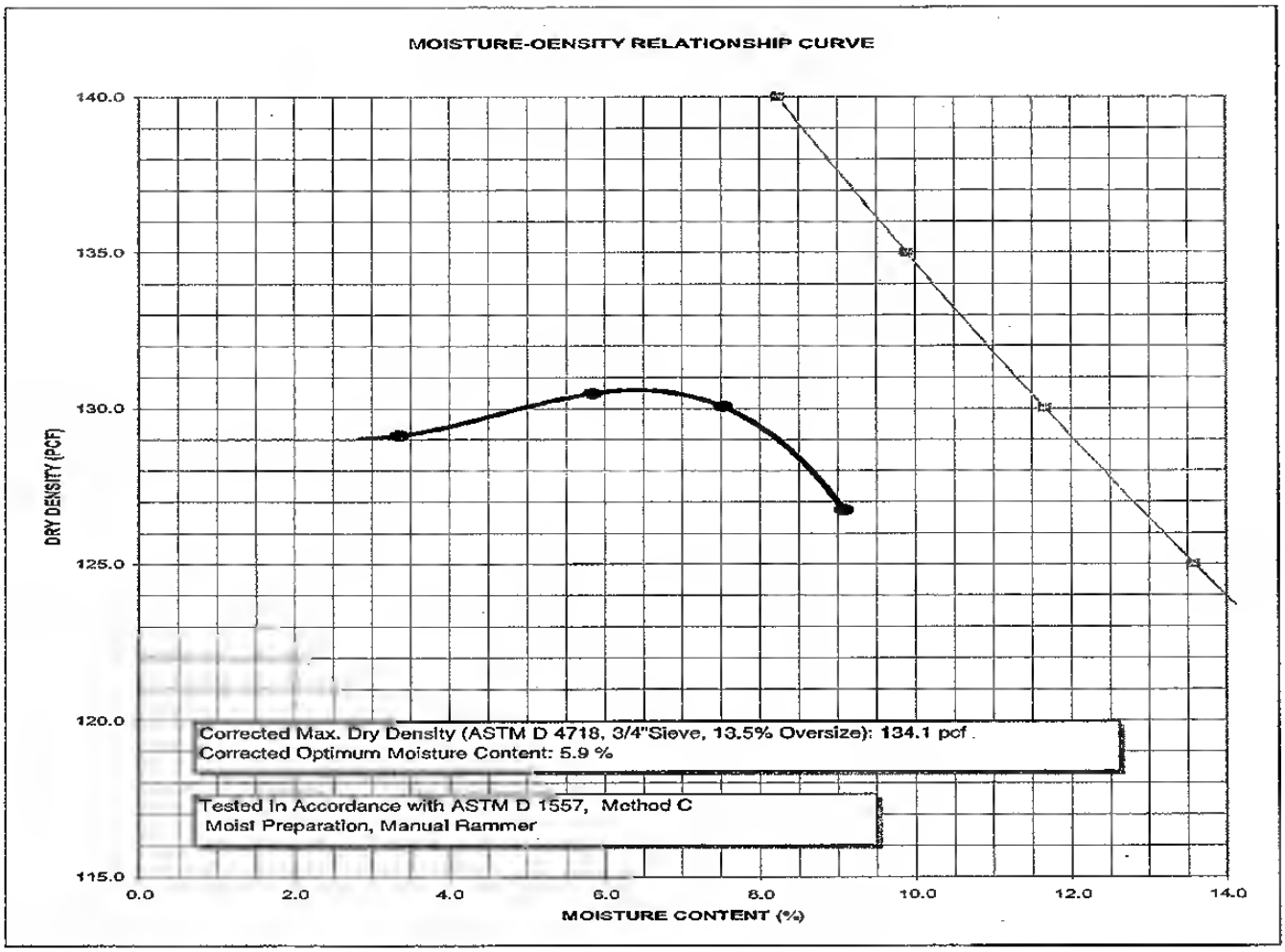
CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

LABORATORY TEST REPORT

CLIENT:	Parsons	**PROJECT:**	Richardson Hill Landfill
REPORT NO.:	20013S-54-0604	**SAMPLE NO.:**	IL-409
SAMPLE LOCATION:	Working Platform	**DATE PICKED UP:**	June 9, 2004
SOIL CLASSIFICATION:	Brown cmf GRAVEL, some SILT/CLAY, some cmf SAND		



COMPACTION TEST REPORT

Test specification: ASTM D 1557-91 Procedure C Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
				2.6558				

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 137.7 pcf Optimum moisture = 6.6 %	

Project No. 843536 **Client:** EMCON/OWT

Project: RICHARDSON HILL RD

• **Source:** **Sample No.:** WP051904-1

Remarks:

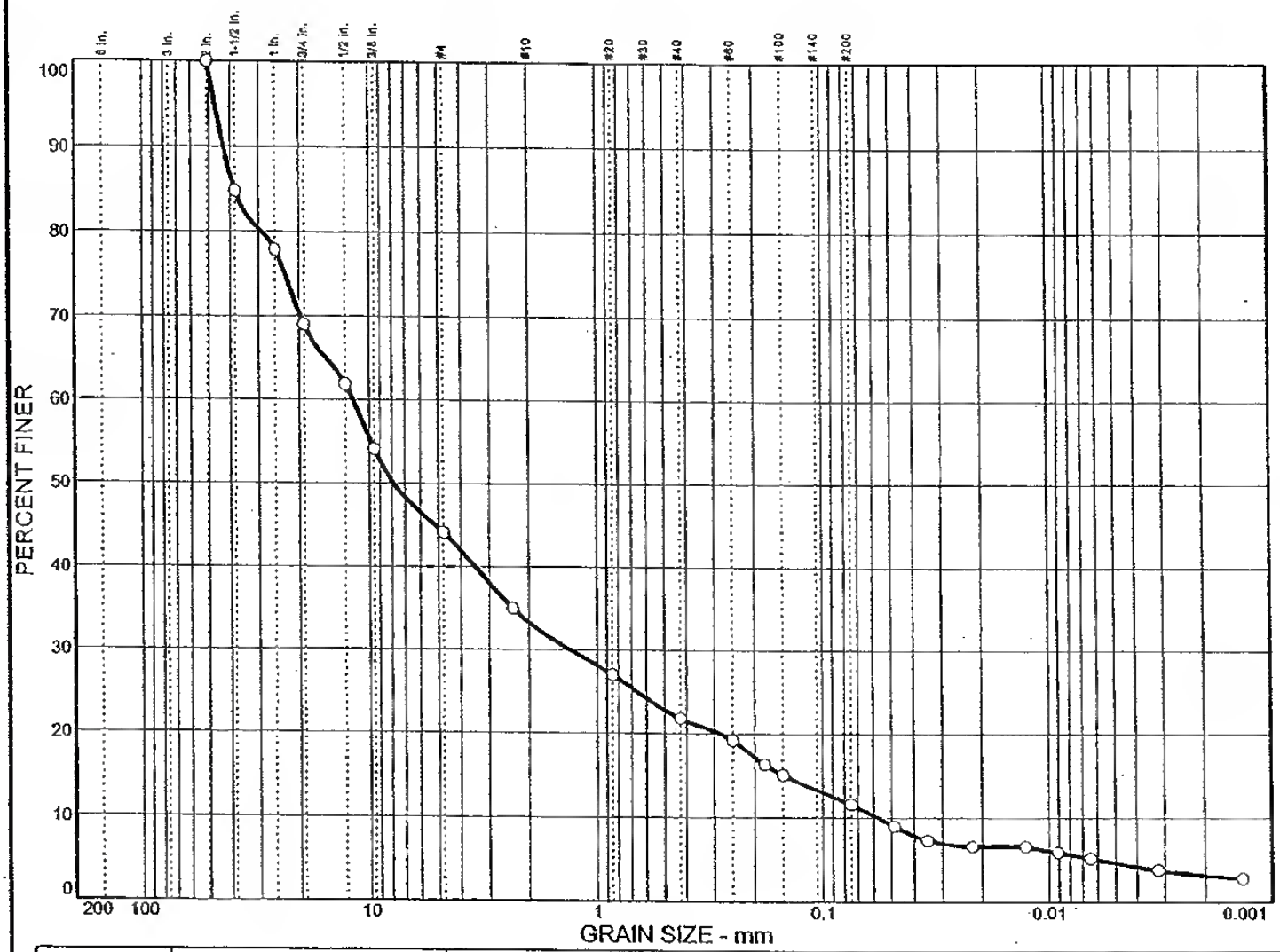
Tested by KP
Entered by KH
Checked by RSA

COMPACTION TEST REPORT

EMCON/OWT, Inc.

Date: 5-21-04

Particle Size Distribution Report



	% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
○	0.0	55.9	32.5	7.0	4.6

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			38.3	11.7	7.83	1.32	0.147	0.0572	2.58	205.46

	MATERIAL DESCRIPTION	USCS	AASHTO
○			

Project No. 843536 **Client:** EMCON/OWT

Project: RICHARDSON HILL RD

○ **Source:** **Sample No.:** WP051904-1

Particle Size Distribution Report

EMCON/OWT, Inc.

Remarks:

○ Moisture Content = 5.5%

Tested by MS

Entered by KH

Checked by RSA

Date: 5-25-04

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill
CLIENT: Parsons
TEST METHOD: Nuclear Density Gauge
MATERIAL TYPE/SOURCE: Brown cmf GRAVEL, cmf SAND, trace SILT/native.
WEATHER: Sunny

DATE: October 13, 2003
REPORT NO.: 20013S-49-1003
REPRESENTATIVE: C. Hand
TEMPERATURE: 50 °F
PAGE: 1 of 1

REMARKS:

This representative was on site to conduct in-place field density tests on material being placed and compacted as a work platform at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Matt Millis was informed of today's test results.

RESULTS:

Test #	Test Locatioo	Test Elevation	Moisturc Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	1100	1757.0	10.6	6.6	123.8	135.0	91.7	90.0
2	1050	1757.0	11.4	6.6	123.3	135.0	91.4	90.0
3	1000	1757.0	12.0	6.6	122.5	135.0	90.7	90.0
4	950	1757.0	8.3	6.6	123.9	135.0	91.8	90.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill
DATE: October 10, 2003
CLIENT: Parsons
REPORT NO.: 20013S-48-1003
TEST METHOD: Nuclear Density Gauge
REPRESENTATIVE: C. Hand
MATERIAL TYPE/SOURCE: Brown cmf GRAVEL, cmf SAND, some SILT/Walton Pit.
WEATHER: Sunny
TEMPERATURE: 70 °F
PAGE: 1 of 1

REMARKS:

This representative was on site to conduct in-place field density tests on material being placed and compacted as subbase for work platforms at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Matt Millis was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	750	1758.0	8.1	5.5	132.5	143.0	92.1	90.0
2	650	1758.0	7.9	5.5	131.2	143.0	91.7	90.0
3	850	1757.0	12.9	6.6	124.9	135.0	92.5	90.0
4	900	1757.0	10.3	6.6	121.5	135.0	90.0	90.0
5	950	1757.0	12.9	6.6	122.3	135.0	90.5	90.0
6	900	1757.5	9.1	5.5	129.9	143.0	90.9	90.0
7	850	1757.5	9.3	5.5	128.8	143.0	90.1	90.0
8	800	1757.5	7.9	5.5	133.1	143.0	93.0	90.0
9	800	1758.0	9.2	5.5	132.4	143.0	92.6	90.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill
CLIENT: Parsons
TEST METHOD: Nuclear Density Gauge
MATERIAL TYPE/SOURCE: Brown cmf SAND, cmf GRAVEL, trace SILT/Clark's Stone Products.
WEATHER: Sunny

DATE: October 8, 2003
REPORT NO.: 20013S-47-1003
REPRESENTATIVE: C. Hand
TEMPERATURE: 60 °F
PAGE: 1 of 1

REMARKS:

This representative was on site to conduct in-place field density tests on material being placed and compacted as subbase for roadway and work platforms at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Matt Millis was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Working platform 200	1757.5	8.8	5.5	136.2	143.0	95.3	90.0
2	Working platform 300	1758.0	9.8	5.5	133.6	143.0	93.4	90.0
3	Working platform 400	1758.5	9.0	5.5	133.8	143.0	93.6	90.0
4	Working platform 500	1758.0	8.0	5.5	132.6	143.0	92.7	90.0
5	Working platform 550	1759.5	8.7	5.5	129.3	143.0	90.4	90.0
6	Working platform 400	1759.0	5.3	5.3	135.4	138.5	97.7	95.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill
CLIENT: Parsons
TEST METHOD: Nuclear Density Gauge
MATERIAL TYPE/SOURCE: Brown cmf SAND and cmf GRAVEL, trace SILT/Sidney Pit/Type 4.
WEATHER: Sunny

DATE: October 7, 2003
REPORT NO.: 20013S-46-1003
REPRESENTATIVE: C. Hand
TEMPERATURE: 50 °F
PAGE: 1 of 1

REMARKS:

This representative was on site to conduct in-place field density tests on material being placed and compacted as subbase for roadway and work platforms at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Matt Millis was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Cootent (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	300	1758.0	6.3	5.3	137.2	138.5	99.0	95.0
2	400	1758.0	8.2	5.3	134.5	138.5	97.1	95.0
3	500	1758.5	5.7	5.3	134.4	138.5	97.0	95.0
4	550	1759.0	6.1	5.3	133.4	138.5	96.3	95.0
5	500	1759.0	5.6	5.3	137.0	138.5	98.9	95.0
6	Work platform 500	1759.0	8.8	5.5	130.6	143.0	91.3	90.0
7	Work platform 400	1758.0	7.5	5.5	133.0	143.0	93.0	90.0
8	Work platform 300	1758.0	9.3	5.5	132.8	143.0	92.8	90.0
9	Work platform 200	1757.0	10.3	5.5	128.8	143.0	90.0	90.0
10	550	1759.0	5.9	5.3	133.9	138.5	96.6	95.0
11	500	1759.0	7.0	5.3	134.2	138.5	96.8	95.0
12	450	1758.5	6.5	5.3	137.5	138.5	99.1	95.0
13	350	1758.5	6.5	5.3	134.9	138.5	97.3	95.0
14	250	1758.0	6.1	5.3	136.7	138.5	98.7	95.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill
CLIENT: Parsons
TEST METHOD: Nuclear Density Gauge
MATERIAL TYPE/SOURCE: Reddish brown cmf GRAVEL and SILT, little SAND.
WEATHER: Partly cloudy

DATE: October 1, 2003
REPORT NO.: 20013S-42-1003
REPRESENTATIVE: T. Wheeler
TEMPERATURE: °F
PAGE: 1 of 1

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Dave of Shaw Construction was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Station 3, 10'W Work pad	-1.0'	10.7	5.5	128.6	143.0	90.0	90.0
2	Station 4, 15'W Work pad	-2.0'	8.9	5.5	131.5	143.0	92.0	90.0
3	Station 4.5, 20'W Work pad	-3.0'	9.6	5.5	130.2	143.0	91.1	90.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill
DATE: September 26, 2003
CLIENT: Parsons
REPORT NO.: 20013S-39-0903
TEST METHOD: Nuclear Density Gauge
REPRESENTATIVE: T. Wheeler
MATERIAL TYPE/SOURCE: Brown cmf SAND and GRAVEL, trace SILT.
WEATHER: Sunny
TEMPERATURE: °F

REMARKS:

This representative was on site to conduct in-place field density tests on material being placed and compacted as subbase for the work platform at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Chris Kibler of Parsons requested this representative use the 138.2pcf at 6.3% moisture proctor for the road area. Test #3 is a re-test of the failed test from 9/25/2003.

RESULTS:

Test #	Test Locatioo	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	t00% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Station 3 – 12'W Work pad	-1.0'	8.06	5.1	132.0	143.3	92.1	90.0
2	Station 3.5 – 5'W Work pad	-2.0'	7.8	5.1	129.9	143.3	90.6	90.0
3	Station 5 – 4'W of S Lan Rd., N lane	-4.0'	9.9	6.3	131.6	138.2	95.2	95.0
4	Station 3.5 – 3W of S Lan Rd., N lane	-1.0'	8.6	6.3	132.3	138.2	95.7	95.0

CME Associates, Inc.

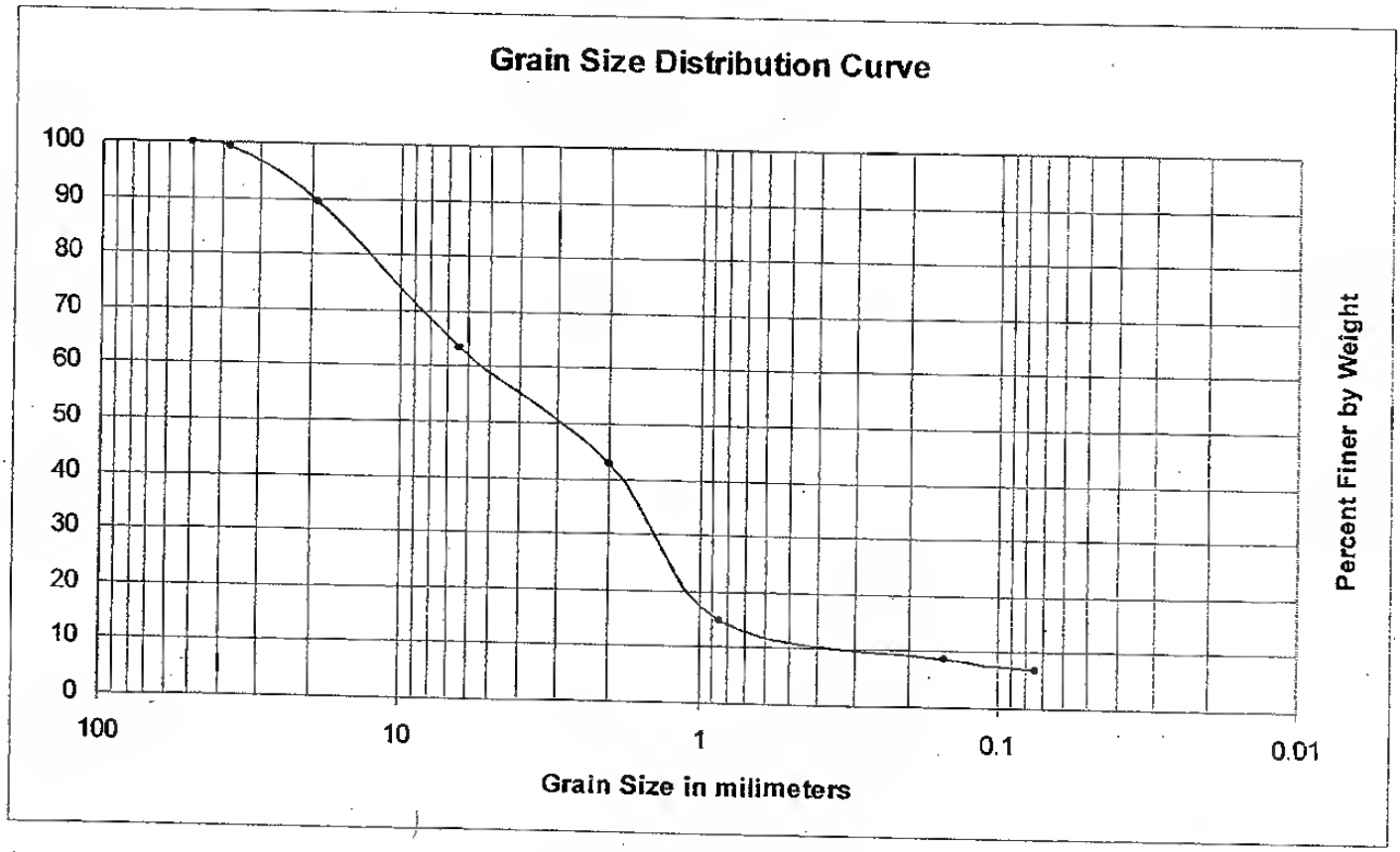
209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

LABORATORY TEST REPORT

CLIENT: Parsons
REPORT NO.: 20013S-40-0903
SAMPLE LOCATION: Sidney Gravel Pits
SOIL CLASSIFICATION: Brown cmf SAND and cmf GRAVEL, trace SILT.

PROJECT: Richardson Hill Road Landfill
SAMPLE NO.: Type 4
DATE PICKED UP: 9/26/2003



Sieve Size	Sample	Specification NYSDOT Type 4
2"	100	100
1 ½"	99.1	
¾"	89.5	
¼"	63.4	30 – 65
# 10	42.7	
# 40	15.0	5 – 40
#100	8.6	
#200	6.8	0 – 10

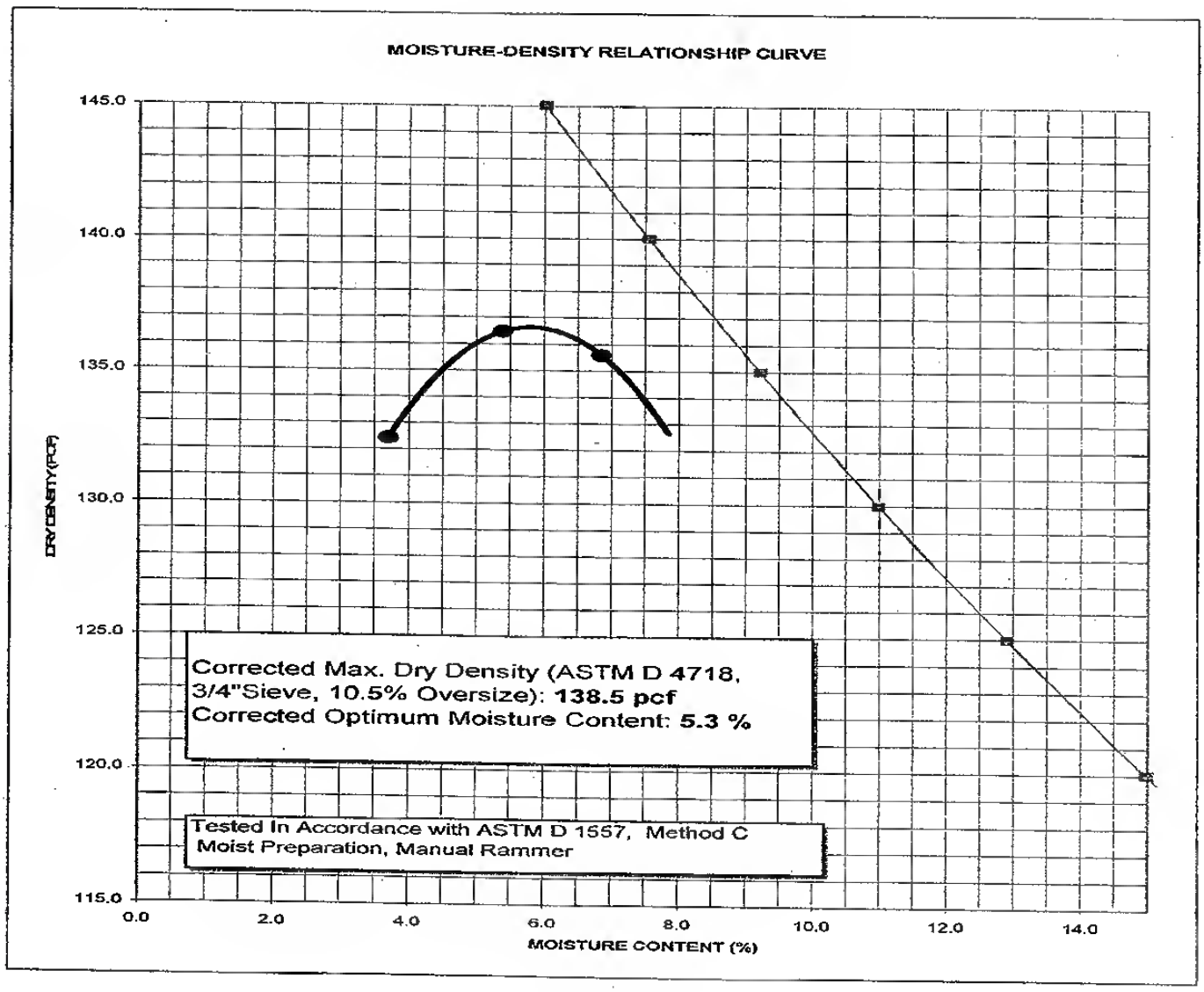
CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

LABORATORY TEST REPORT

CLIENT: Parsons
PROJECT: Richardson Hill Road Landfill
REPORT NO.: 20013S-40-0903
SAMPLE NO.: Type 4
SAMPLE LOCATION: Sidney Gravel Pits
DATE PICKED UP: 9/26/2003
SOIL CLASSIFICATION: Brown cmf SAND and cmf GRAVEL, trace SILT.



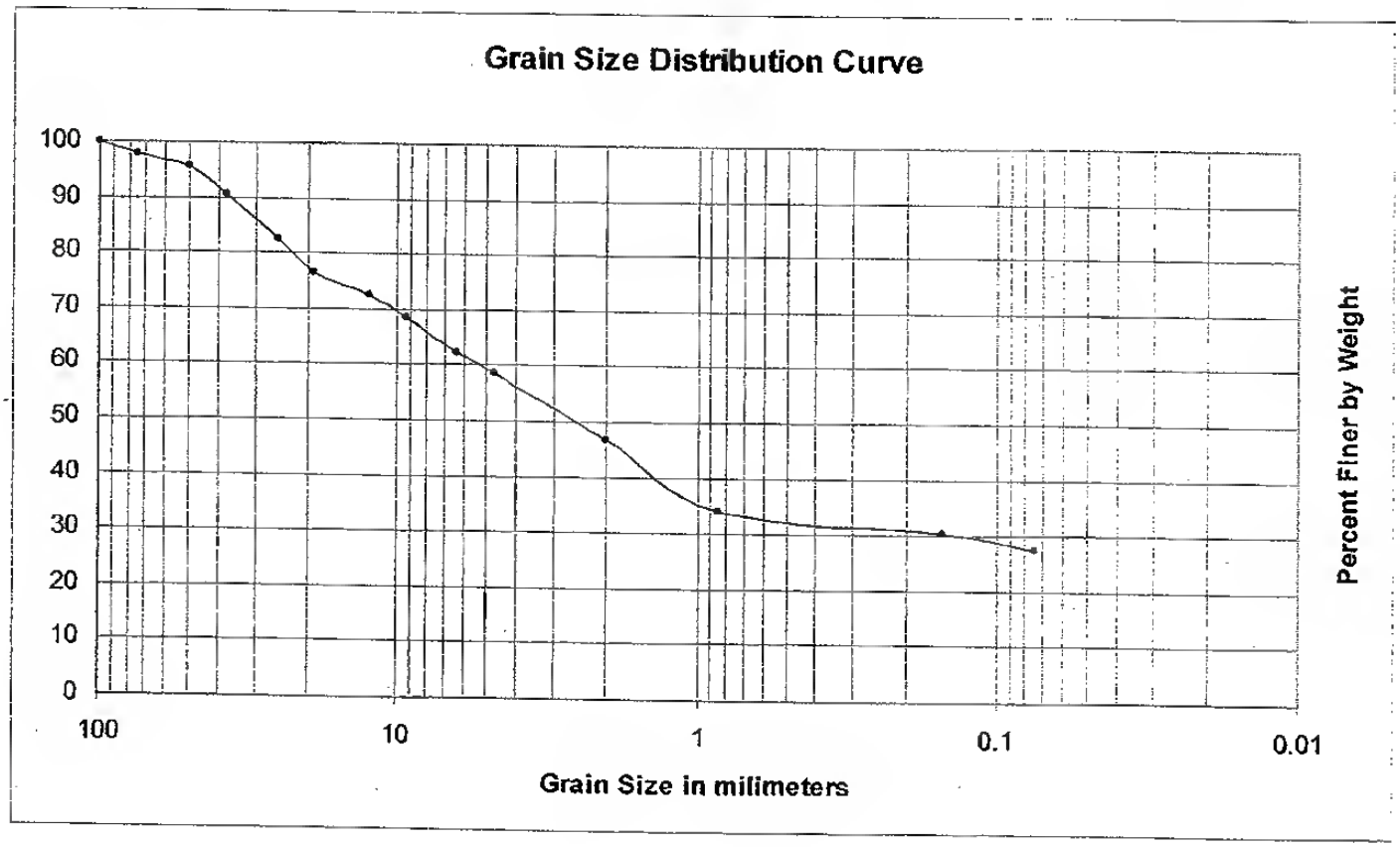
CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

LABORATORY TEST REPORT

CLIENT: Parsons
PROJECT: Richardson Hill Road Landfill
REPORT NO.: 20013S-41-1003
SAMPLE NO.: EL – 399
SAMPLE LOCATION: On-site material
DATE PICKED UP: 9/26/2003
SOIL CLASSIFICATION: Brown cmf GRAVEL, some cmf SAND, some SILT, trace COBBLES.



Sieve Size	Sample	Sieve Size	Sample
4"	100	# 4	58.6
2"	95.6	# 10	46.9
1"	82.5	# 40	34.1
1/2"	72.3	#100	30.3
1/4"	62.3	#200	27.7

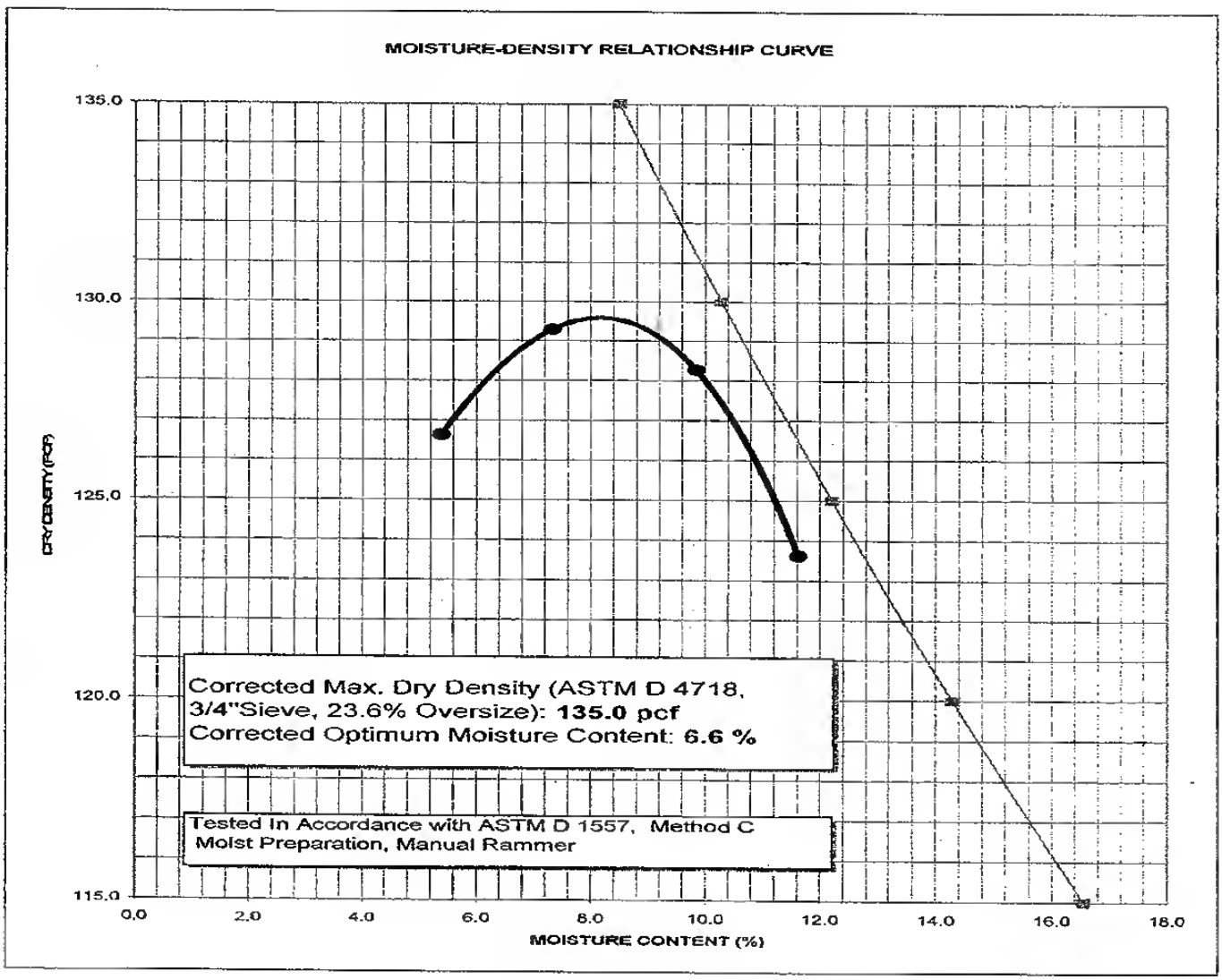
CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

LABORATORY TEST REPORT

CLIENT: Parsons
PROJECT: Richardson Hill Road Landfill
REPORT NO.: 20013S-41-1003
SAMPLE NO.: EL – 399
SAMPLE LOCATION: On-site material
DATE PICKED UP: 9/26/2003
SOIL CLASSIFICATION: Brown cmf GRAVEL, some cmf SAND, some SILT, trace COBBLES.



CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill
DATE: September 24, 2003
CLIENT: Parsons
REPORT NO.: 20013S-36-0903
TEST METHOD: Nuclear Density Gauge
REPRESENTATIVE: T. Wheeler
MATERIAL TYPE/SOURCE: Brown cmf SAND and GRAVEL, trace SILT.
WEATHER: Cloudy
TEMPERATURE: °F

REMARKS:

This representative was on site to conduct in-place field density tests on material being placed and compacted as subbase for the work platform at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Chris Kibler of Parsons was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Station 3 – 18'W	-3.0'	10.0	6.3	130.8	138.2	94.7	90.0
2	Station 3.5 – 18'W	-3.0'	9.4	6.3	130.9	138.2	94.7	90.0
3	Station 4 – 5'W	-3.0'	9.8	6.3	130.1	138.2	94.2	90.0
4	Station 4 – 5'E on S lane	-3.0'	9.3	6.3	132.2	138.2	95.6	95.0
5	Station 3 – 3'E of S lane	-2.0'	8.4	6.3	132.3	138.2	95.7	95.0
6	Station 3 – 12' W	-3.0'	10.7	6.3	128.1	138.2	92.7	90.0
7	Station 3.5 – 12'W	-2.0'	10.5	6.3	126.7	138.2	91.7	90.0
8	Station 4 – 12'W	-3.0'	12.1	6.3	126.2	138.2	91.3	90.0

Tests #1 – 3, 6 – 8: work pad.

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill
DATE: September 22, 2003
CLIENT: Parsons
REPORT NO.: 20013S-35-0903
TEST METHOD: Nuclear Density Gauge
REPRESENTATIVE: T. Wheeler
MATERIAL TYPE/SOURCE: Brown cmf SAND and GRAVEL, trace SILT.
WEATHER: Cloudy
TEMPERATURE: °F

REMARKS:

This representative was on site to conduct in-place field density tests on material being placed and compacted as subbase for the work platform at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Matt Millius of Parsons was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Mnisture Cntent (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Station 3.5-road N lane, 5'E of S lane	-3.0'	8.5	6.3	133.0	138.2	96.3	95.0
2	Station 4-road N lane, 3'E of S lane	-5.0'	8.6	6.3	131.7	138.2	95.3	95.0
3	Station 3.5-road N lane, 3'E of S lane	-2.0'	8.6	6.3	132.6	138.2	95.9	95.0
4	Station 4-road N lane, 2'E of S lane	-4.0'	7.8	6.3	131.5	138.2	95.1	90.0
5	Station 4.5-road N lane, 5'E of S lane	-6.0'	8.5	6.3	131.8	138.2	95.3	95.0
6	Station 4.5 – 12'W	-5.0'	8.9	6.3	132.2	138.2	95.6	90.0
7	Station 3 – 12'W	-4.0'	8.1	6.3	132.3	138.2	95.7	90.0
8	Station 3.5 – 12'W	-3.0'	8.9	6.3	127.5	138.2	92.2	90.0
9	Station 3 – 13'W	-2.0'	8.3	6.3	132.0	138.2	95.5	90.0

Tests #6 – 9: work pad.

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill
DATE: September 18, 2003
CLIENT: Parsons
REPORT NO.: 20013S-34-0903
TEST METHOD: Nuclear Density Gauge
REPRESENTATIVE: T. Wheeler
MATERIAL TYPE/SOURCE: Brown cmf SAND and GRAVEL, trace SILT.
WEATHER: Partly sunny
TEMPERATURE: °F

REMARKS:

This representative was on site to conduct in-place field density tests on material being placed and compacted as subbase for the work platform at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Matt Millins of Parsons was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Station 2 – 12'N	-3.0'	9.8	6.3	129.6	138.2	93.8	90.0
2	Station 1 – 14'N	-10"	8.3	6.3	131.7	138.2	95.3	90.0
3	Station 3 – 14' N	-4.0'	9.5	6.3	131.1	138.2	94.9	90.0
4	Station 4 – 14'N	-5.0'	10.6	6.3	127.4	138.2	92.2	90.0
5	Station 3.5 – 5'S of existing road in L lane	-5.0'	8.5	6.3	131.8	138.2	95.3	95.0
6	Station 3.5 – 5'S of existing road in L lane	-4.0'	9.8	6.3	131.7	138.2	95.3	95.0
7	Station 3 – 10'N	-3.0'	9.1	6.3	131.9	138.2	95.4	95.0

Tests #1 – 4, 7: work pad.

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill
DATE: September 17, 2003
CLIENT: Parsons
REPORT NO.: 20013S-33-0903
TEST METHOD: Nuclear Density Gauge
REPRESENTATIVE: T. Wheeler
MATERIAL TYPE/SOURCE: Brown cmf SAND and GRAVEL, trace SILT.
WEATHER: Partly sunny
TEMPERATURE: °F

REMARKS:

This representative was on site to conduct in-place field density tests on material being placed and compacted as subbase for the work platform at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Bill Bingham of Parsons was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Station 2.5 – 12' N	-3.0'	9.6	6.3	126.3	138.2	91.4	90.0
2	Station 3 – 12'N	-43"	10.8	6.3	126.7	138.2	91.7	90.0
3	Station 1 – 12'N	-1.0'	10.1	6.3	128.8	138.2	93.2	90.0
4	Station 2 – 12'N	-3.0'	9.6	6.3	130.6	138.2	94.5	90.0

Tests #1 – 4 work pad.

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill
DATE: September 16, 2003
CLIENT: Parsons
REPORT NO.: 20013S-32-0903
TEST METHOD: Nuclear Density Gauge
REPRESENTATIVE: T. Wheeler
MATERIAL TYPE/SOURCE: Brown cmf SAND and GRAVEL, trace SILT.
WEATHER: Partly sunny
TEMPERATURE: °F

REMARKS:

This representative was on site to conduct in-place field density tests on material being placed and compacted as subbase for the work platform at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Matt Millis of Parsons was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Station 1 – 8' N	-3.0'	7.9	6.3	136.8	138.2	99.0	90.0
2	Station 2 – 10' N	-4.0'	8.3	6.3	134.7	138.2	97.4	90.0
3	Station 2 – 10'N x 6'W	-3.0'	7.5	6.3	138.2	138.2	100.0	95.0
4	Station 1 – 12'N x 7'E	-2.0'	9.3	6.3	130.8	138.2	94.6	90.0
5	Station 2.5 – 20'N	-4.0'	8.2	6.3	134.3	138.2	97.2	95.0
6	Station 1.5 – 10'W	-3.0'	9.1	6.3	131.1	138.2	94.8	90.0
7	Station 2.5 – 12'N	-5.0'	10.1	6.3	130.1	138.2	94.2	90.0

Tests #1 – 4, 6 – 7 work pad; test #5 road.

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill
CLIENT: Parsons
TEST METHOD: Nuclear Density Gauge
MATERIAL TYPE/SOURCE: Unclassified material/Plouts Pit/Watson Pit.
WEATHER: Sunny

DATE: September 12, 2003
REPORT NO.: 20013S-31-0903
REPRESENTATIVE: C. Hand
TEMPERATURE: 70 °F

REMARKS:

This representative was on site to conduct in-place field density tests on material being placed and compacted as subbase for the work platform at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test. The 100% Dry Density and OMC value was provided by others.

Matt Millis of Parsons was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	1 + 50	1752.0	7.3	6.3	130.5	138.2	94.4	90.0
2	2 + 0	1752.0	8.8	6.3	131.7	138.2	95.3	90.0
3	3 + 0	1752.0	8.1	6.3	132.4	138.2	95.8	95.0
4	4 + 0	1752.5	6.9	6.3	129.8	138.2	93.9	90.0
5	5 + 0	1754.0	7.5	6.3	132.6	138.2	95.9	90.0
6	6 + 0	1756.0	9.4	6.3	127.5	138.2	92.2	90.0
7	0 + 50	1752.5	8.2	6.3	130.5	138.2	94.4	90.0
8	1 + 50	1752.5	8.9	6.3	126.9	138.2	91.8	90.0
9	2 + 50	1752.5	8.0	6.3	129.4	138.2	93.6	90.0
10	3 + 50	1752.5	7.4	6.3	133.8	138.2	96.8	95.0
11	4 + 0	1753.0	8.1	6.3	133.7	138.2	96.7	95.0
12	4 + 50	1753.5	8.8	6.3	133.0	138.2	96.2	95.0
13	5 + 0	1754.0	7.4	6.3	135.5	138.2	98.1	95.0
14	5 + 50	1755.0	6.7	6.3	129.5	138.2	93.7	90.0
15	3 + 0	1753.0	7.4	6.3	133.5	138.2	96.6	95.0
16	4 + 0	1753.5	6.3	6.3	136.7	138.2	98.9	95.0
17	4 + 50	1753.5	9.9	6.3	126.1	138.2	91.2	90.0
18	3 + 0	1753.5	6.1	6.3	129.1	138.2	93.4	90.0
19	3 + 50	1753.5	8.5	6.3	129.7	138.2	93.9	90.0
20	4 + 0	1753.5	7.7	6.3	130.3	138.2	94.3	90.0
21	4 + 50	1754.0	7.1	6.3	132.9	138.2	96.1	95.0
22	3 + 50	1753.5	8.1	6.3	132.1	138.2	95.6	95.0
23	5 + 0	1754.5	8.8	6.3	134.8	138.2	97.5	95.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill
CLIENT: Parsons
TEST METHOD: Nuclear Density Gauge
MATERIAL TYPE/SOURCE: Unclassified material/Plouts Pit-Watson Pit.
WEATHER: sunny

DATE: September 11, 2003
REPORT NO.: 20013S-30-0903
REPRESENTATIVE: R. Hall
TEMPERATURE: °F
PAGE: 1 of 1

REMARKS:

This representative was on site to conduct in-place field density tests on material being placed on the work platform to bring the areas to grade at the above referenced project.

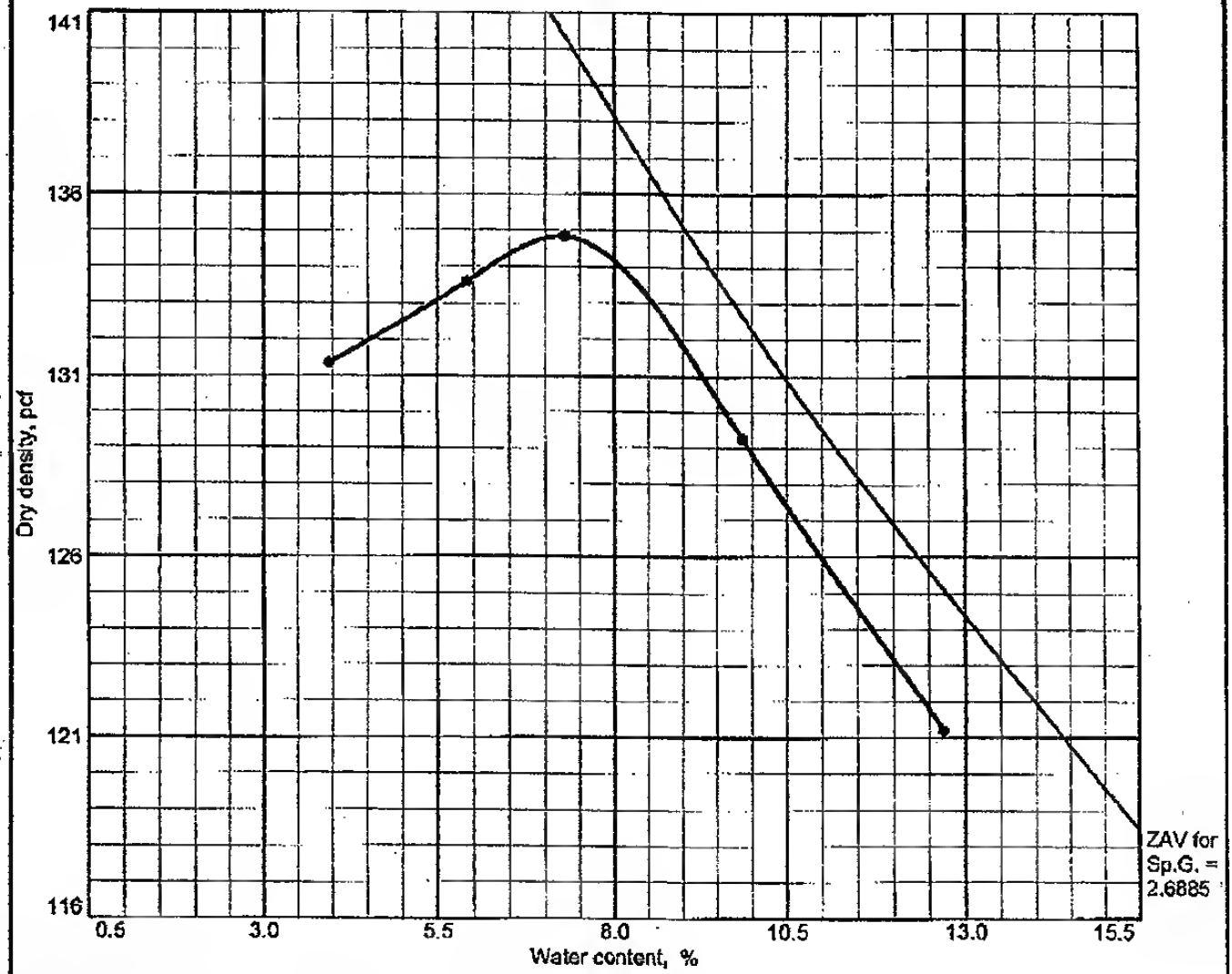
Upon arrival, this representative was given a compaction test report from EMCON/OWT, Inc, dated June 3, 2003. The Maximum Dry Density was not oversize corrected and contained values of 134.9 pcf with Optimum Moisture at 7.2%. Copies of the report were faxed to Mr. Ralph Martinez, Assistant Branch Manager of the CME Elmira Office for oversize calculations. These results were used for compaction testing.

The entire north half of the work platform is pumping after the addition of one 8 to 12-inch lift. However, the required percentage of compaction was achieved at the location and elevation of the test. Matt Millis of Parsons was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	15'E of Station 200	-5.0	9.1	6.3	131.5	138.2	95.1	90.0
2	10'E at Station 300	-6.0	8.1	6.3	132.4	138.2	95.8	95.0
3	10'E at Station 400	-7.0	8.4	6.3	131.3	138.2	95.0	95.0
4	35'E at Station 200	-5.5	8.2	6.3	130.9	138.2	94.7	90.0
5	50'E at Station 345	-7.0	9.0	6.3	128.8	138.2	93.2	90.0
6	50'E at Station 300	-6.0	9.3	6.3	129.4	138.2	93.6	90.0
7	20'E at Station 500	-7.0	11.4	6.3	127.4	138.2	92.1	90.0

COMPACTION TEST REPORT



Test specification: ASTM D 1557-91 Procedure A Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > No.4	% < No.200
	USCS	AASHTO						
				2.6885				

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 134.9 pcf Optimum moisture = 7.2 %	

Project No. 843536 **Client:** SHAW E & I, INC.

Project: RICHARDSON HILL RD. LANDFILL

Source: **Sample No.:** BARRIER PROTECTION

Remarks:
Tested by: K.P.
Entered by: K.H.
Checked by: R.S.A.

COMPACTION TEST REPORT

EMCON/OWT, Inc.

Date: 6-3-03

PARSONS
290 Elwood Davis Road, Suite 312 • Liverpool • New York • 13088 • (315) 451-9560 • FAX: (315) 451-9570

Fax Cover Sheet

DATE: 9/11/03 JOB NO.:

TO: Ralph Martinez PHONE #:

COMPANY: CME FAX #: 739-4085

FROM: Matt Millis

Number of pages including cover sheet: 4

Message

Ralph:

Attach is the RTRL Work Platform mat'l proctor info.

Matt

Bob is this the same MAT'L w/ A D-698 and D1557 PROCTOR w/ the SAME GRADATION?

PLEASE CALL OR FAX OTHER GRADATION

D698 = 131.6 @ 7.7%

D1557 = 138.2 @ 6.3%

w/ the SAME GRADATION

If applicable, to FAX operator:
Please copy for each recipient within your office upon receipt.

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill
CLIENT: Parsons
TEST METHOD: Nuclear Density Gauge
MATERIAL TYPE/SOURCE: Reddish Brown cmf GRAVEL and SILT, little cmf SAND.
WEATHER: Sunny

DATE: June 17, 2003
REPORT NO.: 20013S-24-0603
REPRESENTATIVE: T. Giamichael
TEMPERATURE: 75 °F
PAGE: 1 of 1

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

All areas were tested at an 8" depth. The test results show that the required percentage of compaction was **not** achieved at all of the locations and elevations tested. The failed areas will be retested upon the client's request.

Matt Millis of Parsons was informed of today's test results.

Test elevations below final grade.

RESULTS:

Test #	Test Location	Test Elevatioo	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compactioo Required (%)
1	Station 1+0, 12 east	7'	4.9	5.1	133.2	143.3	92.9	90.0
2	Station 1 +50, 12' east	7'	5.7	5.1	130.6	143.3	91.1	90.0
3	Station 3 + 0, 5' east	7'	8.2	5.1	131.8	143.3	92.0	90.0
4	Station 4 + 25, 10' east	7'	7.9	5.1	118.5	143.3	**82.7**	90.0
5	Station 4 + 45, 6' east	7'	6.6	5.1	130.4	143.3	91.0	90.0
6	Station 7 + 0, 20' west	7'	7.1	5.1	131.5	143.3	91.8	90.0
7	Station 8 + 0, 20' east	7'	11.7	5.1	121.3	143.3	**84.6**	90.0
8	Station 8 + 55, 15' east	7'	8.9	5.1	127.3	143.3	**88.8**	90.0
9	Station 10 + 0, 3' west	4'	8.3	5.1	131.9	143.3	92.0	90.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill
CLIENT: Parsons
TEST METHOD: Nuclear Density Gauge
MATERIAL TYPE/SOURCE: Reddish Brown cmf GRAVEL and SILT, little cmf SAND.
WEATHER: Overcast, rainy

DATE: June 13, 2003
REPORT NO.: 20013S-23-0603
REPRESENTATIVE: T. Giamichael
TEMPERATURE: 66 °F
PAGE: 1 of 1

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

The test results show that the required percentage of compaction was **not** achieved at the locations and elevations tested. This area will be retested upon the client's request.

Matt Millis and Tom of Parsons were informed of today's test results.

Test elevations below final grade.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Deosity (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Station 3 + 40; 15' west	7'	11.2	5.1	124.2	143.3	**86.8**	90.0
2	Station 4.0; 6' west	7'	16.0	5.1	116.6	143.3	**81.3**	90.0
3	Station 5 + 0; 3' west	7'	16.2	5.1	112.3	143.3	**78.4**	90.0
4	Station 5 + 50; CL	7'	14.6	5.1	121.6	143.3	**84.9**	90.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill
CLIENT: Parsons
TEST METHOD: Nuclear Density Gauge
MATERIAL TYPE/SOURCE: Clay platform material.
WEATHER: Overcast, rainy

DATE: June 11, 2003
REPORT NO.: 20013S-21-0603
REPRESENTATIVE: T. Giamichael

TEMPERATURE: °F
PAGE: 1 of 1

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

The test results show that the required percentage of compaction was **not** achieved at the locations and elevations tested. This area will be retested upon the client's request.

Jeff of Parsons was informed of today's test results.

Test locations referenced from the north end of the trench.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	25' south, 4' east	3'	10.4	5.1	128.0	143.3	**89.3**	90.0
2	40' south, 4' west	3'	9.3	5.1	130.0	143.3	**90.7**	90.0
3	50' south	3'	10.0	5.1	127.2	143.3	**88.8**	90.0
4	50' south, 5' west	3'	10.0	5.1	126.9	143.3	**88.6**	90.0
5	90' south, 5' east	3'	7.7	5.1	127.9	143.3	**89.2**	90.0

CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Road Landfill
CLIENT: Parsons
TEST METHOD: Nuclear Density Gauge
MATERIAL TYPE/SOURCE: Clay platform material.
WEATHER: Overcast

DATE: June 9, 2003
REPORT NO.: 20013S-20-0603
REPRESENTATIVE: T. Giamichael

TEMPERATURE: °F
PAGE: 1 of 1

REMARKS:

This representative was on site to conduct in-place field density tests at the above referenced project.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test, but the area was clearly too wet to consider the results valid. A new soil sample was obtained in order to perform a proctor test. This was done at the client's request.

Dale and Jeff of Parsons were informed of today's test results.

Test locations referenced from the north end of the trench.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	80 feet south	3'	10.0	7.2	122.9	134.9	95.2	90.0
2	90 feet south	3'	12.2	7.2	129.9	134.9	97.2	90.0
3	100 feet south	3'	12.4	7.2	129.5	134.9	96.0	90.0

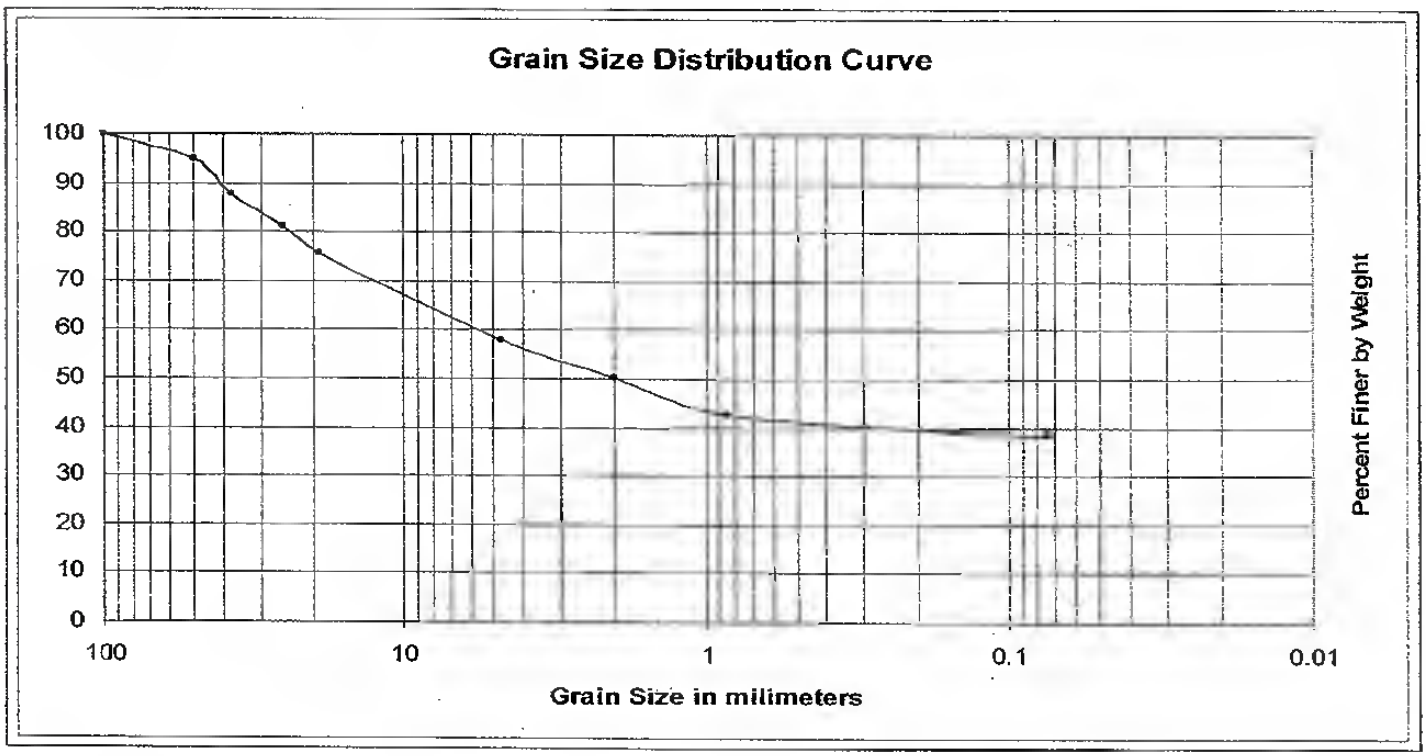
CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

LABORATORY TEST REPORT

CLIENT: Parsons
PROJECT: Richardson Hill Road Landfill
REPORT NO.: 20013S-22-0603
SAMPLE NO.: 1L – 111
SAMPLE LOCATION: Imported Working Platform
DATE PICKED UP: 6/9/2003
SOIL CLASSIFICATION: Reddish-Brown cmf GRAVEL and SILT, little cmf SAND.



Sieve Size	Sample	Sieve Size	Sample
4"	100	#4	57.9
2"	94.8	#10	50.3
1 ½"	87.7	#40	42.9
1"	81.2	#100	39.0
3/4"	75.9	#200	38.3

Liquid Limit	18	Classification of #40 material = ML
Plastic Limit	15	
Plasticity Index	3	

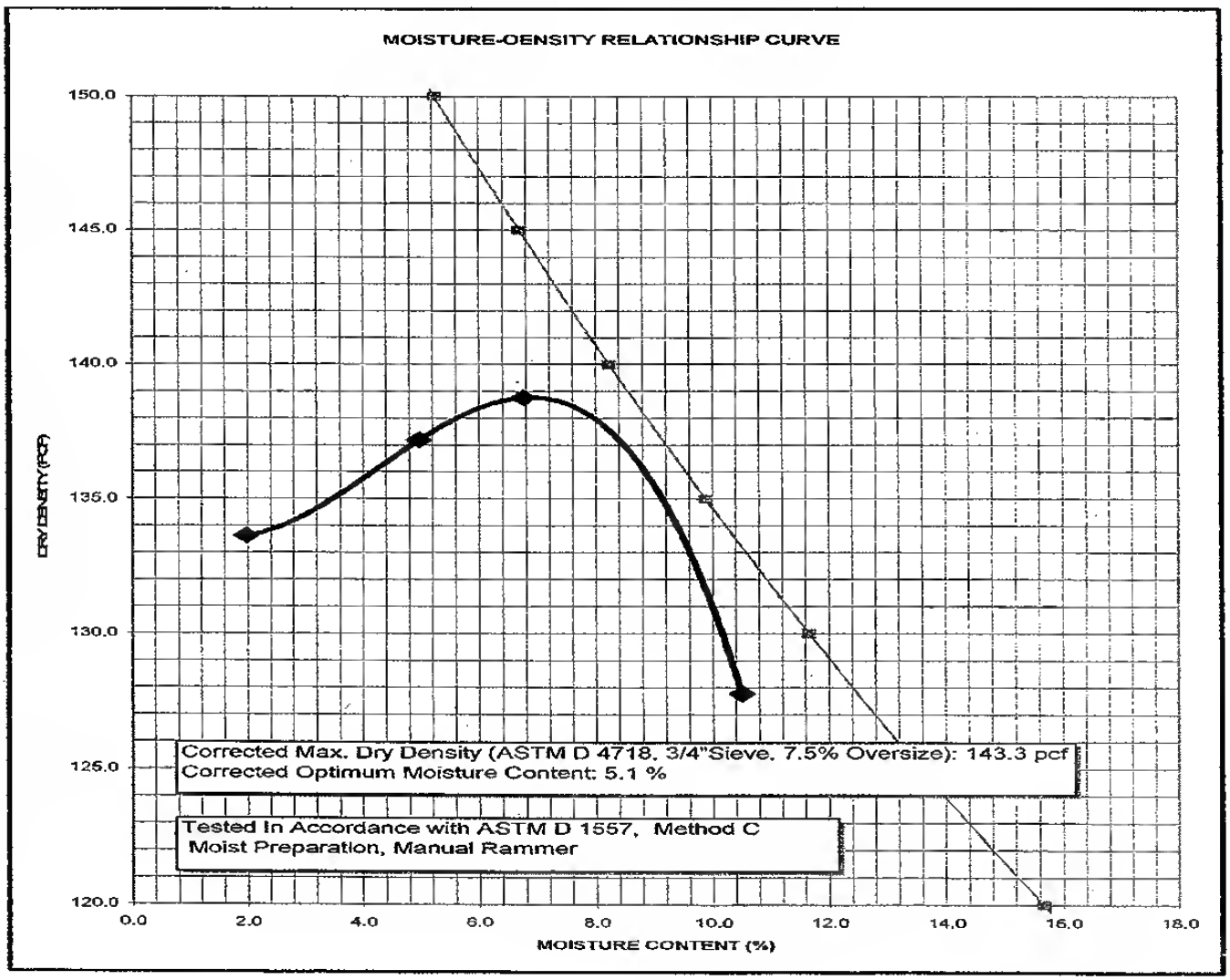
CME Associates, Inc.

209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

LABORATORY TEST REPORT

CLIENT: Parsons
PROJECT: Richardson Hill Road Landfill
REPORT NO.: 20013S-22-0603
SAMPLE NO.: IL – 111
SAMPLE LOCATION: Imported Working Platform
DATE PICKED UP: 6/9/2003
SOIL CLASSIFICATION: Reddish-Brown cmf GRAVEL and SILT, little cmf SAND.



F-14

BIPOLYMER SLURRY COMPATIBILITY TESTING AND MSDS

Biopolymer Compatibility Tests

MSDS
- Guar Gum
- Busan 1059
- Soda Ash
- LEB-4

AMPHENOL CORPORATION

Richardson Hill Road Landfill
Construction of Earthwork Activities
Contract No. 555009

Shaw Environmental
Project # 843536

LETTER OF TRANSMITTAL

Transmittal No.: 35

Date Submitted: 04/03/03

Section No.: 02250

Resubmittal: Yes / No

Description: Groundwater Extraction Trench-Site Operations Plan

Includes the following submittal requests:

1.05 A.1. a thru q except for desanding requirement in b., and all of g. (These requirements have been deleted from the contract)

1.05 A.2 thru 9 – Complete

1.05 A .10 – Pertaining to HDPE Vertical Barrier submittal under Transmittal #15. HDPE vertical sump and concrete vaults to be provided in separate submittal. Horizontal collection pipe has been deleted from the contract.

Deviations: None

Roy Mosley 4/3/03
Submitted by/date

Status: (circle one) 1. Approved as Submittal 2. Approved as Noted 3. Returned for Corrections 4. Resubmit (not Approved)

Comments:

_____

_____

_____

_____
Signed by/date

Site Operation Plan for Groundwater Extraction Trench Construction Richardson Hill Road Landfill Superfund Site, Sidney, NY

Prepared for:
Amphenol Corporation
40-60 Delaware Avenue
Sidney, NY 13838

And

Honeywell
101 Columbia Road
P.O. Box 2105
Morristown, NJ 07962

Prepared by:
Shaw Environmental, Inc.
200 Horizon Center Boulevard
Trenton, New Jersey 08691

Project No. 843536

April 3, 2003

The information contained in this proposal is confidential and shall not be used or disclosed, except for evaluation purposes, provided that if a contract is awarded to Shaw Environmental, Inc., as a result of or in connection with the submission of this proposal, the requestor shall have the right to use or disclose the data to the extent provided in the contract. This restriction does not limit the requestor's right to use or disclose any technical data obtained from another source without restriction.

APPENDIX A

RANTEC CORPORATION

PO Box 729
HWY 14 West
Ranchester, WY 82839
ph 307-655-9565 fax 307-655-9528
email lwm@ranteccorp.com

TO: Wah Tak Chan, Shaw Environmental Date: 31 March 2003

FROM: Lloyd Marsden

RE: Compatibility Testing, Richardson Hill Landfill Water

On 19 March 2003 Rantec Corporation received the following water samples from Shaw Environmental, which were logged in as:

Rantec ID Number	Label	Quantity
1) RT3060	Ground Site H2O	1.5 gallons
2) RT3061	Pond H2O	3 gallons
3) RT3062	City H2O	0.5 gallons

A quantity of 2 gallons of Pond H2O were treated with Calcium Hypochlorite to a level of approximately 20 ppm Chlorine on receipt.

On the following day, 20 March 2003, compatibility testing of the waters against Rantec G150 was begun. Testing followed the standard test procedure previously transmitted with these exceptions:

1) A total of 2000 ml of each test was mixed
2) G150 design mix was altered to:
    a. G150 – 50-lb/1000 gallons
    b. Soda Ash – 8.33-lb/gallons

Recorded results of testing are attached as a separate spreadsheet, RichardsonHillTest.xls.

Comments: Distilled water was utilized as a control. All the slurries mixed with pond water and City water maintain stability similar to the control. As expected all slurries gradually lose viscosity over time. The losses are all parallel with no single factor causing catastrophic or unexpected viscosity loss.

PH is expected to be maintained at a target value of 10.5. With these waters a gradual drift down to 9.0 was observed. In field use it will be necessary to monitor the actual slurry and adjust the pH with alkali as necessary to maintain the target. It is vitally important to the slurry stability to maintain the pH level.

The tested design mix with 50-lb G150 per 1000 gallons initially produces viscosity in the range of 62 to 64 Marsh Funnel seconds. Your goal of a working viscosity of 60 Marsh Funnel seconds is initially met with this recipe, however after 4 to 6 days the viscosity

reaches levels less than 60 MF seconds. We would recommend that you consider using a higher dose of G150 in order to produce a higher viscosity in order to have a safety factor.

Lloyd Marsden

Lloyd Marsden, P.E.
Technical Sales

Compstibility Testing for
Shaw Environmental
Richerdson Hill Lendfill
Rev 28-Mar-03

Start Date: 20-Mar-03

Mix Water Test Results

ID	Mix Water	Quantity	G150 Dose	Quantity	Sode Ash Dose	Quantity	Busan 1059WS Dose	Quantity	Dilution Type	Quantity		Viscosity/pH/Visc Rheometer 2 hr	4 hr post dilut.	24 hr	4 day	5 day	6 day	7 day	8 day	11 day
A	Distilled	2000 ml	50 lb/1000	11.99 gm	8.33 lb/1000	2.0 gm	2 lb/1000	0.48 gm	None	None	pH	10	10	10	10	10	9	9	9	9
											MF sec	65	65	64	62	62	60	58	57	57
											Rheo cps	49	52	52	52	50	49	49	51	51
B	Pond	2000	50	11.99	8.33	2	2	0.48	None	None	pH	10	10	10	10	10	10	9	9	9
											MF sec	61	61	61	61	59	57	56	55	54
											Rheo cps	56	51	52	52	52	51.5	47	48	47
C	Pond w/Cl	2000	50	11.99	8.33	2	2	0.48	None	None	pH	10	10	10	10	9	9	9	9	9
											MF sec	60	61	62	60	58	56	58	56	54
											Rheo cps	47	51	52	52	51	51	50	50	49
D	Pond w/Cl	2000	50	11.99	8.33	2	2	0.48	Distilled D	10%	pH	10	10	10	10	9	9	9	9	9
											MF sec	59	53	55	52	52	50	49	49	49
											Rheo cps	47	45	46	46	43.5	43.5	42	42	42
E	Pond w/Cl	2000	50	11.99	8.33	2	2	0.48	Groundw	10%	pH	10	10	10	10	9	9	9	9	9
											MF sec	59	54	54	52	51	50	49	49	48
											Rheo cps	48	44	46	46	43	43	42	42	41
F	City Tap	1655	50	11.99	8.33	2	2	0.48	None	None	pH	10	10	10	9	9	9	9	9	9
	Distilled	345									MF sec	61	61	64	59	59	58	57	57	56
											Rheo cps	48	55	53	53	51.5	51.5	51	51	50
												0.08	0.17	1.00	4.00	5.00	6.00	7.00	8.00	11.00

APPENDIX C

MATERIAL SAFETY DATA SHEET

1. Product and Company Information

Product Name: Rantec® /Procol® / Viscol® Guar Gum

Manufacturer/Supplier: Rantec Corporation
Address: 17 Kukuchka Lane
Ranchester, WY 82839

Phone Number: (307) 655-9565
Fax Number: (307) 655-9528
e-mail: rantec@ranteccorp.com

2. Composition / Information on Ingredients

Ingredient	CAS Number	% Weight	Exposure Limits
Guar Gum	9000-30-0	100	5 mg/m^3 (respirable) PEL-TWA 3 mg/m^3 (respirable) TLV-TWA 10 mg/m^3 (inhalable dust) TLV-TWA

OSHA Hazardous Material: Yes
OSHA Hazard Categories: Irritant, Sensitizer, Combustible Dust

3. Hazards Identification

Emergency Overview:

Concentrations of dust suspended in the air present a fire and explosion hazard. Inhalation of dust may cause respiratory irritation and possible lung injury with symptoms of shortness of breath and reduced lung function. Guar gum is very slippery when wet.

Acute Health Effects:
Eye Contact: Contact may cause irritation based on studies with laboratory animals.

Skin Contact: Contact may cause dryness.

Inhalation: Inhalation of dust may cause irritation of the nose, throat and respiratory passages. Symptoms include coughing, sore throat, nasal congestion, sneezing wheezing and shortness of breath. May cause life-threatening allergic reaction in susceptible individuals.

Ingestion: DO NOT INGEST. While this product is not toxic by ingestion, swallowing small amounts could cause complete blockage of the mouth, pharynx, trachea, esophagus and/or gastrointestinal system which may cause choking, suffocation and/or other life threatening medical conditions. Get medical attention immediately.

Chronic Health Effects: Overexposure to any nuisance dust may cause lung injury. Symptoms include cough, shortness of breath and reduced pulmonary function

Carcinogenicity: None of the components of this product are listed as carcinogens or suspected carcinogens by OSHA, IARC or NTP.

Medical Conditions Aggravated by Exposure: Persons with pre-existing skin and respiratory disorders may be at an increased risk from exposure.

4. First Aid Measures

Eye: Flush immediately with large amounts of water. Eyelids should be held away from the eyeball to ensure thorough rinsing. If irritation persists get medical attention.

Skin: First aid is not normally needed. Wash exposed skin with soap and water after use. If irritation or rash develops get medical attention. Use skin lotion if dryness occurs.

Inhalation: If symptoms of irritation or allergy develop, remove person from source of exposure to fresh air. If symptoms persist get medical attention.

Ingestion: Swallowing even small amounts may have serious, life-threatening effects. Get immediate medical attention.

5. Firefighting Measures

Flashpoint: Not Applicable
Autoignition Temperature: Not Determined

Lower Explosion Limit: 0.040 oz/cf
Upper Explosion Limit: Not determined

Extinguishing Media: Use water fog, dry chemical, carbon dioxide or foam. Do not use streams of water as dust dispersed by water streams can explode.

Special Fire Fighting Procedures: Wear positive pressure, self-contained breathing apparatus and full protective clothing.

Unusual Fire and Explosion Hazards: Powder has the potential to form explosive mixtures with air. Avoid creating dust. Keep away from heat, sparks and open flames. As with all dusty materials, use preventative measures including spark proof motors and ventilation to control dust.

Combustion Products: Oxides of carbon and nitrogen.

6: Accidental Release Measures

Wear appropriate protective clothing and equipment. Caution: Guar gum is ***very slippery when wet.*** Sweep up or vacuum, avoiding the creation of airborne dust, and collect into a suitable container for disposal. Keep spilled product away from flammable and combustible materials. Wash residual traces with hot water after sweep-up is complete. Test area for residual slippery conditions.

7. Handling and Storage

Handling: Avoid generating and breathing dust. Avoid eye contact. Use with adequate local exhaust ventilation and dust collection to maintain the concentration of airborne dust below the exposure limits. If clothing becomes contaminated, remove and launder before re-use. Wash thoroughly after handling.

Storage: Keep product dry. Store in a cool, dry area. Keep containers closed to avoid moisture absorption.

8: Exposure Controls / Personal Protection

Engineering Controls: Use explosion proof local exhaust ventilation as needed to maintain exposure concentrations below the recommended limits.

Personal Protective Equipment (PPE): Eye Protection: Safety glasses or goggles recommended.

8. Exposure Controls / Personal Protection (continued)

Skin Protection: Rubber, plastic or leather gloves recommended.

Respiratory Protection: If the concentrations exceed the Threshold Value Limit (TLV), a NIOSH approved dust respirator, supplied air respirator or self-contained breathing apparatus is recommended. Select appropriate respiratory protection for respirable particulates based on consideration of the airborne workplace concentrations and duration of exposure. Select and use respirators in accordance with 29 CFR 1910.134 http://www.access.gpo.gov/nara/cfr/cfr-retrieve.html#page1 , ANSI Z88.2 http://www.ansi.org/, the NIOSH Respirator Decision Logic and good industrial hygiene practice http://www.cdc.gov/niosh/homepage.html.

9. Physical and Chemical Properties

Boiling Point: Not Applicable
Melting Point: Decomposes
Vapor Pressure: Not Applicable
Vapor Density (Air=1): Not Applicable
% Solubility in Water: Complete
Specific Gravity: Not applicable
% Volatile: Not applicable
Evaporation Rate (Butyl Acetate=1): Not Applicable
pH: 5-8
Octanol/Water Partition Coefficient: Not Applicable
Odor/Appearance: Creamy white powder with a bean-like odor.

10. Stability and Reactivity

Stability: Material is stable.
Incompatibility: Avoid high temperatures, sparks, open flames and moisture. Avoid contact with strong oxidizing agents.
Hazardous Reactions-Decomposition Products: Combustion may produce carbon dioxide, carbon monoxide and oxides of nitrogen.
Hazardous Polymerization: Will not occur.

11. Toxicological Information

Guar Gum: Oral rat LD50: 9.4g/kg

Guar gum is a natural food additive, although direct use in powder or pill form is banned by the FDA due to the risk of respiratory or gastrointestinal blockage

12. Ecological Information

No ecotoxicity data is available at this time.

13. Disposal Considerations

Dispose in compliance with all applicable federal, state and local regulations. Do not dump down sewers or drains as this may cause blockage.

14. Transport Information

U.S. Department of Transportation (DOT)
Proper Shipping Name: Not Regulated
Hazard Class: N/A
UN/NA Code: N/A
Packing Group: N/A

Labels Required: N/A

14. Transport Information (continued)

IMDG CODE
Proper Shipping Name: NOT REGULATED
Hazard Class: N/A
UN/NA Code: N/A
Packaging Group: N/A
Labels Required: N/A

15. Regulatory Information

Regulatory Information

The United States Food and Drug Administration, the European Economic Community and the World Health Organization accept guar gum as a food additive/ingredient providing it meets specified purity standards and dosage limitations. Maximum usage levels permitted may vary from country to country. Guar gum has been affirmed as GRAS by the United States Food & Drug Administration under title 21, CFR, part 184.1339; it is listed as item G.3 of Table IV, Division 16, of the Canadian Food and Drug Regulations and is referenced E-412 under the EEC Council Directives.

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA) Reportable Quantity: This product is not subject to CERCLA reporting requirements as it is sold.

OSHA Hazard Categories: Imitant, Sensitizer, Combustible Dust

Superfund Amendments and Reauthorization Act (SARA) Title III Information:
SARA Section 311/312 Hazard Categories: Fire Hazard, Acute Health
This product contains the following toxic chemical(s) subject to reporting requirements of SARA Section 313: None

California Proposition 65: This product is not known to contain chemical regulated under California Prop. 65.

Toxic Substances Control Act (TSCA): All components of this product are listed on the TSCA inventory or exempt from notification requirements.

Canadian Environmental Protection Act: All of the components of this products are listed on the Canadian Domestic Substances List or exempt from notification requirements.

European Inventory of Existing Commercial Chemical Substances (EINECS): All of the components of this product are listed on the EINECS Inventory or exempt from notification requirements.

Japan MITI: All of the components of this product are existing chemical substances as defined in the Chemical Substance Control Law.

Australian Inventory of Chemical Substances: All of the components of this product are listed on the AICS Inventory or exempt from notification requirements.

Canadian WHMIS Classification: Class B, Division 4 (Flammable Solid)

16. Other Information

NFPA Hazard Ratings:

Health: 1 Flammability: 1 Reactivity: 0

HMIS Hazard Ratings:

Health: 1 Flammability:1 Reactivity: 0

Abbreviations:

ACGIH	American Conference Of Governmental Industrial Hygienists
ANSI	American National Standards Institute
CAS	Chemical Abstracts Service
COC	Centers for Disease Control and Prevention
CFR	The Code of Federal Regulations
EEC	European Economic Community
EINECS	European Inventory of Existing Commercial Chemical Substances
EPA	United States Environmental Protection Agency
FDA	United States Food and Drug Administration
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
IMDG	International Maritime Dangerous Goods
LD50	Lethal Dose expected to cause death in 50% of the test animals
MITI	Ministry of International Trade and Industry
NFPA	National Fire Protection Association
NIOSH	CDC - National Institute for Occupational Safety
NTP	National Toxicological Program
OSHA	U.S. Department of Labor, Occupational safety and health administration
PEL	OSHA - permissible exposure limit
TLV	ACGIH - threshold limit value
TWA	Time weighted average
UN/NA	United Nations / North America
US	United States
WHMIS	Workplace Hazardous Materials Information System

NOTICE:

Information contained in this literature is given in good faith, and no warranty, express or implied, is made. Contact manufacturer/supplier listed for more information.

Rantec, Procol, Viscol and the Rantec world symbol are registered trademarks of Rantec Corporation and Polypro International.

BUCKMAN LABORATORIES, INC.
MATERIAL SAFETY DATA SHEET

BUSAN 1059

Revision date: 3/14/2002

Phone 1-800-BUCKMAN

Buckman Laboratories, Inc.
1256 North McLean Boulevard
Memphis, TN 38108

24 Hour Emergency Phone: (901) 767-2722

SECTION 1 — *OSHA HAZARD CLASSIFICATIONS*

Irritating to eyes, skin, and respiratory tract. Avoid inhalation of dust.

SECTION 2 — *HAZARDOUS COMPONENTS*

Chemical Name	*CAS Number*	*% by Weight*	*TLV*
1) Tetrahydro-3,5-dimethyl-2H-l,3,5-thiadiazine-2-thione	*533-74-4*	*98*	*Not available.*

The remainder of the components comprise proprietary information.

SECTION 3 — *FIRST AID INFORMATION*

Eye Exposure: **Flush immediately with copious amounts of tap water or normal saline (minimum of 15 minutes). Take exposed individual to a health care professional, preferably an ophthalmologist, for further evaluation.**

Skin Exposure: **Wash exposed area with plenty of soap and water. Repeat washing. Remove contaminated clothing and wash thoroughly before reuse. If irritation persists consult a health care professional.**

Inhalation: **If exposure by inhalation is suspected, immediately move exposed individual to fresh air. If individual experiences nausea, headache, dizziness, has difficulty in breathing or is cyanotic, seek a health care professional immediately.**

Ingestion: **DO NOT INDUCE VOMITING. Rinse with copious amounts of water or milk, first. Irrigate the esophagus and dilute stomach contents by slowly giving one (1) to two (2) glasses of water or milk. Avoid giving alcohol or alcohol related products. In cases where the individual is semi-comatose, comatose or convulsing, DO NOT GIVE FLUIDS BY MOUTH. In case of intentional ingestion of the product seek medical assistance immediately; take individual to nearest medical facility.**

SECTION 4 — *PRIMARY ROUTES OF EXPOSURE*

1. Effects from Acute Exposure:

Eye Exposure: Hazardous in case of eye contact (irritant).

Skin Exposure: Hazardous in case of skin contact (irritant, Sensitizer.). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Inhalation: Hazardous in case of inhalation. Effects will depend on concentration and length of time of exposure.

Ingestion: Ingestion is not expected to be a primary route of exposure.

2. Effects from Chronic Exposure:

The effects from chronic exposure to this product have not been fully evaluated.

SECTION 5 — *Toxicological Information*

Acute Effects:

Acute	Oral	(LD50) = 363 mg/kg Rat
Acute	Dermal	(LD50) = >2000 mg/kg Rabbit
Acute	Inhalation	(LC50) = >1.7 mg/l (4 hours) Rat

Irritant ISensitization Effects:

Hazardous in case of eye contact (irritant).
Hazardous in case of skin contact (irritant, Sensitizer). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.
Hazardous in case of inhalation. Effects will depend on concentration and length of time of exposure.

Carcinogenic Potential:

Not tested by Buckman Laboratories. Not shown as a carcinogen by OSHA, IARC, or NTP.

Target Organs Effects:

May cause damage to the following organs: upper respiratory tract, skin, eyes.

Other Health Effects:

None known.

SECTION 6 — *Environmental Toxicological Information*

LC50 = 11.2 mg/l 48 hours Daphnia magna

LC50 = 16.2 mg/l 96 hours Rainbow trout

SECTION 7 — *Physical and Chemical Properties*

Appearance	White, crystalline solid
Odor	Slight.
Density	0.53 g/cm3 at 25°C (77°F)
Flash Point	Not available.
Melting/Freezing Point	Not available.
Boiling Point	Not available.
Solubility	Partially soluble in cold water. Partially soluble in hot water.

pH (Neat)	Not available.
pH	(100 *ppm in water)* 6 -7
Vapor Pressure	Not applicable for solids.
o/w Partition Coefficient	Not available.
Oxidizing/Reducing Properties.	Not available.
Viscosity	Not available.
Additional pH Information	Not available.

SECTION 8 — *Fire and Explosion Information.*

Flammable Limits Not available

Extinguishing Media Water fog, carbon dioxide, foam, dry chemical.

Special Firefighting Procedures Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 9 — *Reactivity Information*

Stability Stable under normal conditions of use and storage. Keep dry.

Incompatibility Moisture.

Hazardous Decomposition Products Carbon oxides (CO, CO2), sulfur oxides (SO2, SO3)

SECTION 10 — *Handling Precautions*

Rubber gloves, safety glasses or goggles, body protective clothing and shoes are required. Eye-wash fountains in the work place are recommended. Provide ventilation to control dust. If dusting can occur, a NIOSH approved respirator is recommended. The handling precautions for this product are based on the characteristics of the neat product unless otherwise specified.

SECTION 11 — *Satisfactory Materials of Construction*

Not available.

SECTION 12 — *Spill, Leak and Disposal Procedures*

SPILL AND LEAK RESPONSE GUIDELINES

Important: Before responding to a spill or leak of this product, review each section of this MSDS. Follow the recommendations given in the Handling Precautions sections. Check the Fire and Explosion Data section to determine if the use of non-sparking tools is merited. Insure that spilled or leaked product does not come into contact with materials listed as incompatible. If irritating fumes are present, consider evacuation of enclosed areas.

Emergency Response Assistance: Emergency technical assistance is available at any time from Buckman Laboratories, Inc., by calling (901) 767-2722.

Initially minimize area effected by the spill or leak. Block any potential routes to water systems (e.g., sewers, streams, lakes, etc.). Based on the product's toxicological and chemical properties, and on the size and location of the spill or leak, assess the impact on contaminated environments (e.g. water systems, ground, air equipment, etc.). There are no methods available to completely eliminate any toxicity this product may have on aquatic environments. Minimize adverse effects on these environments. Buckman

Laboratories, Inc. can be contacted for technical assistance. Determine if federal, state, and/or local release notification is required (see Regulatory Classifications section of this MSDS). Recover as much of the pure product as possible into appropriate containers. Later, determine if this recovered product can be used for its intended purpose. Address clean up of contaminated environments. Spill or leak residuals may have to be collected and disposed of. Flushing residual material to an industrial sewer, if present at the site of a spill or leak incident, may be acceptable if authorized approval is obtained. If product and/or spill/leak residuals are flushed to an industrial sewer, insure that they do not come into contact with incompatible materials. Contact the person(s) responsible for the operation of your facility's industrial sewer system prior to intentionally flushing spills or leaks of this product to the industrial sewer.

DISPOSAL GUIDELINES

Note: Follow federal, state, and local regulations governing the disposal of waste materials.

Neat Product: Contact your Buckman representative or Buckman Laboratories, Inc., at (901) 278-0330.

Contaminated Materials: Determine if waste containing this product can be handled by available industrial effluent system or other on-site waste management unit. If off-site management is required, contact a company experienced in industrial waste management. This product is not specifically listed in 40 CFR 261 as a Resource Conservation and Recovery Act (RCRA) hazardous waste. However, spill or leak residuals may meet the criteria of a characteristic hazardous waste under this Act. Check the characteristics of the material to be disposed of and/or the physical and reactivity data given in this MSDS for the neat product.

Container Disposal: Empty containers, as defined by appropriate sections of the RCRA, are not RCRA hazardous wastes. However, insure proper management of any residuals remaining in container.

SECTION 13 *Transportation and Shipping Information*

DOT Shipping Information: Not Regulated.

IMO/IMDG Shipping Information: Not Regulated.

IATA Shipping Information: Not Regulated.

Unless otherwise stated, the shipping information provided above applies only to non-bulk containers of this product. Proper shipping name and general shipping information may vary depending on packaging and mode of shipment. All products shipped from Buckman locations have been properly packaged and labeled according to appropriate hazardous materials shipping regulations. If any alteration of packaging, product, or mode of transportation is further intended, different shipping information, including but not limited to proper shipping name, RQ designation, and labeling may apply. For further information pertaining to the shipping requirements for this product, contact Buckman 's Transportation Department or DOT Coordinator.

SECTION 14 *Regulatory Information*

The following Regulations are known to apply to the use and disposal of this product. Additional Federal, State and Local regulations may also be applicable.

SARA (Superfund Amendments and Reauthorization Act)

SARA 302 *Extremely Hazardous Substances List* ...
No components of this product are listed.
SARA 312 *Hazard Category* ...
Immediate Health Hazard
SARA 313 *Toxic Chemicals List* ...
Tetrahydro-3 ,5-dimethyl- 2H -1,3,5- thiadiazine-2-thione

CERCLA (Comprehensive Environmental Response, Compensation and Liability Act)

No components of this product are present above the *de minimus* levels.

RCRA (Resource Conversation and Recovery Act) Listed Hazardous Waste

No components of this product are listed.

CWA (Clean Water Act) Listed Substances
No components of this product are listed.

FDA (Food and Drug Administration)
This product is approved under the following FDA (21 CFR) sections: 1) 175.105- Limitations: For use as a preservative only. 2) 178.3120- Limitations: For use as a preservative only. 3) 176.230- Limitations: For use as a preservative for substances added to the pulp suspension prior to the sheet forming operation, provided the preservative is volatilized ~ heat in the drying and finishing of the paper and paperboard. As a preservative for coatings, provided the preservative is volatilized by heat in the drying and finishing of the coated paper and paperboard. 4) 176.300 -No known limitations.

TSCA (Toxic Substances Control Act) Applicability
All components are listed on the TSCA Inventory. Registered pesticides are exempt from the requirements of TSCA.

FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act)
This product is a registered pesticide. EPA Reg. No. 1448-104

HMIS/NPCA Rating Health 3 Flammability 1 Reactivity 1

NFPA Ratings Health 3 Flammability 1 Reactivity 1

State Regulations
Various State Right To Know Acts ...
Non-proprietary hazardous chemicals are listed in Section 2 of this MSDS. Should you require further information on specific proprietary or inert ingradients please contact Buckman Laboratories' Regulatory Affairs Department.

The information on this Material Safety Data Sheet reflects the latest information and data that we have on hazards, properties, and handling of this product under the recommended conditions of use. Any use of this product or method of application which is not described in the Data Sheet is the responsibility of the user. This Material Data Safety Sheet was prepared to comply with the OSHA Hazard Communication regulations.

Buckman Laboratory, Inc. warrants that this product conforms to its chemical description and is reasonably fit for the purpose referred to in the directions for use when used in accordance with the directions under normal conditions. Buyer assumes the risk of any use contrary to such directions.

Seller makes no other warranty or representation of any kind, express or implied, concerning the product, including NO IMPLIED WARRANTY OF MERCHANT ABILITY OR FITNESS OF THE GOODS FOR ANY OTHER P ARTICULAR PURPOSE. No such warranties shall be implied by law and no agent of seller is authorized to alter this warranty in any way except in writing with a specific referance to this warranty.

The exclusive remedy against seller shall be in a claim for damages not to exceed the purchase price of the product, without regard to \\tlether such a claim is based upon breach of warranty or tort.

Any controversy or claim arising out or relating to this contract, or breach thereof, shall be settle by arbitration in accordance with the commercial arbitration rues of the American Arbitration Association, and judgment upon the rendered by the Arbitrator(s) may be entered in any court having jurisdiction thereof.

MATERIAL SAFETY DATA SHEET

---

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Soda ash dense
HCI PRODUCT ID NUMBER: 02595
SYNONYMS: Sodium carbonate, anhydrous
CHEMICAL FAMILY NAME: Inorganic, salt
NFPA HAZARD RATINGS (H-F-R): 2-0-0
HMIS HAZARD RATINGS (H-F-R): 3-0-0
DISTRIBUTOR: HCI U.S.A. DISTRIBUTION COMPANIES, INC.
TECHNICAL RESOURCE CENTER
6529 S. BROADWAY
ST. LOUIS, MO 63111
(314) 353-6500
IN CASE OF EMERGENCY CALL: CHEMTREC 1-800-424-9300

---

2. COMPOSITION, INFORMATION ON INGREDIENTS

INGREDIENT	CAS No.	PERCENT
Sodium carbonate	000497-19-8	99.8

Trace impurities and additional material names not listed above may also appear in the Regulatory Information Section (Section 15) towards the end of the MSDS. These materials may be listed for local "Right to Know" compliance and for other reasons.

---

3. HAZARDS IDENTIFICATION

********** EMERGENCY OVERVIEW **********

Caution! Airborne dust is irritating to nose and throat.
Contact with the eyes and skin can cause irritation.

Continued

POTENTIAL HEALTH EFFECTS

SKIN: Contact with the skin may cause irritation.

EYES: Contact with the eyes may cause irritation.

INGESTION: No data available

INHALATION: Inhalation may be irritating to respiratory tract.

Components found on one of the OSHA designated carcinogen lists are listed below.

INGREDIENT	NTP	IARC	OSHA
Sodium carbonate	N	N	N

This product does not contain any chemicals reportable under California Proposition 65.

FIRST AID MEASURES

SKIN CONTACT: Remove contaminated clothing and shoes. Wash exposed areas with soap and water. Call a physician if irritation persists.

EYE CONTACT: Flush eyes with water for at least 15 minutes. Call a physician if irritation persists.

INGESTION: Give 1-2 glasses of water to dilute.
Do not induce vomiting!
Do not give anything by mouth to an unconscious person.
Get medical attention.

INHALATION: Remove to fresh air.
Call a physician if irritation persists.

NOTES TO PHYSICIAN: While internal toxicity is low, irritant effects of high concentrations may produce corneal opacities and vesicular skin reactions in humans with abraded skin only. Treatment is symptomatic and supportive.

Continued

5. FIRE FIGHTING MEASURES

FIRE **AND EXPLOSIVE PROPERTIES**

FLASHPOINT: ,	N/AP
FLASH POINT METHOD:	N/AP
LOWER FLAMMABILITY LIMIT (% IN AIR):	N/AP
UPPER FLAMMABILITY LIMIT (% IN AIR):	N/AP
AUTOIGNITION TEMPERATURE:	N/AP
FLAMMABILITY CLASSIFICATION:	N/AP

EXTING. MEDIA: This product is not flammable. Use extinguishing media for surrounding fire.

FIRE FIGHTING: Use NIOSH-approved self-contained breathing apparatus and complete protective clothing when fighting chemical fires.

FIRE HAZARDS: None known

---

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILLS: Contain spill and ventilate area. Sweep up and containerize for disposal.

LARGE SPILLS: Contain spill and ventilate area. Permit only trained personnel wearing full protective equipment to enter the spill area. Collect the spill in a waste container or remove with a vacuum truck. Prevent spill from entering natural watercourses.

Wear complete protective clothing when cleaning up chemical spills.
Spills and releases may have to be reported to federal and/or local authorities. See the Regulatory Information section (section 15) regarding reporting requirements.

---

7. HANDLING AND STORAGE INFORMATION

HANDLING: Avoid contact with skin, eyes, and clothing.
Avoid breathing product dust.
Do not take internally.
Wash thoroughly after handling this material.

STORAGE: Keep container -closed when not in use.
This material should be stored in a dry area.

Continued

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS

Good general ventilation (typically 10 air changes/hour) should be used. Ventilation rates should be matched to conditions.

PERSONAL PROTECTIVE EQUIPMENT

SKIN: Wear impervious gloves.

EYES: Wear chemical safety goggles.

RESPIRATORY: Use a NIOSH-approved respirator for dusts/mists when necessary.

OTHER: Emergency showers, eye-wash stations, and fire blankets should be accessible. Wear protective clothing.

EXPOSURE GUIDELINES

INGREDIENT	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
Sodium carbonate	N/EST	N/EST	N/EST	N/EST

See 29 CFR 1910.1000 (D) (2) and ACGIH "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices" booklet (Appendix C) for the determination of exposure limits for mixtures. Consult an industrial hygienist or similar professional to confirm that the calculated exposure limits are appropriate.

---

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Solid
APPEARANCE:	White, granular
ODOR:	Odorless
MOLECULAR WEIGHT:	105.99
SPECIFIC GRAVITY:	2.509
SOLUBILITY (IN WATER):	33.2 Max.
BOILING POINT:	N/AV
FREEZING POINT:	1564 F 851.03 C
MELTING POINT:	1564 F 851.03 C
PRODUCT pH (@ 23 C):	11.4 (1% soln)
VAPOR PRESSURE:	N/AP
VAPOR DENSITY:	N/AP

Continued

EVAPORATION RATE (BUTYL ACETATE=I):	N/AP
--	%
VOLATILES:	N/AP

10. STABILITY AND REACTIVITY INFORMATION

STABILITY: Stable

COND. TO AVOID: Exposure to high temperatures should be minimized.

INCOMPATIBILITY: Acids
Aluminum
Halogens

OECOMPOSITION: Toxic oxides of carbon

POLYMERIZATION: Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

IMMEDIATE EFFECTS

Irritant: inhalation, skin, eye

LC50: 2.3 mg/L (rat) 2 hour LD50:
4090 mg/kg (rat) Irritation data:

Eye: Severe irritant (rabbit)

DELAYED EFFECTS (CHRONIC AND SUBCHRONIC)

CARCINOGENICITY: No data available

MUTAGENICITY: No data available

EPIDEMIOLOGY: No data available

TERATOGENICITY: No data available

REPRODUCTIVITY: No data available

NEUROTOXICITY: No data available

Continued

12. ECOLOGICAL INFORMATION

LC50: 96hr (Daphnia magna = 265-565 mg/L

LC50: 96hr (Bluegill sunfish) = 300-320 mg/L

---

13. DISPOSAL CONSIDERATIONS

RCRA WASTE:	No
RCRA ID NUMBER:	N/AP
VOC CONTENT (lbs/gal):	N/AP

Discharge, treatment, or disposal may be subject to Federal, State, or Local laws. State and Local regulations and restrictions are complex and may differ from Federal disposal regulation.

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA Classification and the proper disposal ,.-- method.

---

14. TRANSPORTATION INFORMATION

DOT SHIPPING NAME: None

DOT HAZARD CLASS:	None
DOT ID NUMBER:	None
DOT PACKING GROUP:	None

IMDG HAZARD CLASS: None

ICAO HAZARD CLASS: None

Continued

15. REGULATORY INFORMATION

CERCLA "REPORTABLE QUANTITY" (RQ): No RQ
Spills/releases resulting in the loss of this product at or above its RQ requires immediate notification to the National Response Center (1-800-424-8802) and to your Local Emergency Planning Committee.

TSCA

TSCA INVENTORY STATUS: Yes

SARA TITLE III

INGREDIENT	SECTION 313	SECTION 302
Sodium carbonate	no	no

SECTION 311/312 HAZARD CLASS: Immediate (acute) health hazard

WHMIS CLASSIFICATION (CANADA)

Not restricted

FOREIGN INVENTORY STATUS

No data available

ADDITIONAL REGULATORY INFORMATION

This product does not contain any chemicals reportable under California Proposition 65.

MASSACHUSETTS SUBSTANCE LIST:
Not listed

NEW JERSEY WORKPLACE HAZARDOUS SUBSTANCE LIST:
Not listed

PENNSYLVANIA HAZARDOUS SUBSTANCE LIST:
Not listed

Continued

16. OTHER INFORMATION

CREATION DATE: 06/25/1997

REVISION DATE: 06/25/1997

The information herein is presented in good faith and is believed to be correct as of the date hereof. However, HCI makes no representation as to the completeness and accuracy thereof. Users must make there own determination as to the suitability of the product for their purposes prior to use.

No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature with respect to the product or to the information herein is made hereunder. HCI shall in no event be responsible for any damages of whatsoever nature directly or indirectly resulting from the publication, or use of, or reliance upon the information contained herein.

End of Document

Rantec Corporation

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: **LEB-4 (Liquid Enzyme Breaker)**
CHEMICAL NAME: Proprietary
CHEMICAL FAMILY: Propylene Glycol Solution/Enzyme Protein
FORMULA: Proprietary
DOT HAZARD CLASS: None **DOT PROPER SHIPPING NAME: Non-Regulated**

SECTION I
MANUFACTURER'S NAME:
RANTEC CORPORATION
PO BOX 729
RANCHESTER, WY 82839
EMERGENCY PHONE: 1-307-655-9565

DATE PREPARED: 28 May 1993
PREPARED BY:
Lloyd Marsden, Plant Manager

SECTION II Hazardous Ingredients Information
LEB contains no hazardous ingredients.

SECTION III Physical Characteristics
BOILING POINT: 220° F SPECIFIC GRAVITY:(H_2O=1):1.02
VAPOR PRESSURE: Unknown VAPOR DENSITY: Unknown
EVAPORATION RATE: Unknown MELTING POINT: Less than 32° F
SOLUBILITY IN WATER: Complete.
APPEARANCE AND ODOR: Dark brown liquid with glycol and fermentation odor.

SECTION IV Fire and Explosion Hazard Data
Non-Flammable

SECTION V Reactivity Data
STABILITY: Stable CONDITIONS TO AVOID: High temperatures
INCOMPATIBILITY: Strong acids, bases, oxidizing agents.
HAZARDOUS DECOMPOSITON PRODUCTS: None
HAZARDOUS POLYMERIZATION: Will Not Occur.

SECTION VI Health Hazard Data
ROUTES OF ENTRY: Skin, Ingestion
HEALTH HAZARDS:
1. Eyes: May cause eye irritation upon direct contact depending on individual sensitivity. Remove material from eyes by flushing with fresh water. Consult physician if irritation persists.
2. Skin: Essentially non-toxic. May produce a drying effect which can cause irritation on prolonged or repeated exposure. Wash skin with soap and water. Use a suitable skin lotion.
3. Ingestion: Ingestion of this material may produce toxic effects. If ingested, consult a physician.

CHRONIC OVEREXPOSURE: None known to occur. Individuals with a history of respiratory allergic responses may have respiratory conditions such as asthma intensified by exposure to dust from this product if allowed to dry.
CARCINOGENICITY: None of the ingredients are known to be carcinogenic.

SECTION VII Precautions for Safe Handling And Use
STEPS TO BE TAKEN IN CASE OF SPILL: Stop flow of material, surround spill to prevent spread. Do not allow material to dry on floor or other surfaces as dust may be irritating.
SPILL HANDLING: Use pumps and containers as necessary to recover material. Salvage uncontaminated material, flush balance to drain. Completely flush spill area to avoid drying and dustiness.

SECTION VIII Control Measures
RESPIRATORY PROTECTION: Not required.
VENTILATION: N/A.
PROTECTIVE GLOVES: Rubber, plastic, leather.
EYE PROTECTION: Safety glasses.
WORK/HYGIENIC PRACTICES: Avoid contact and control spills. Remove material that may come in personal contact. Keep work area clear of spilled material and avoid contact. Personnel should be tested for protein enzyme sensitivity prior to work assignment in handling material.

F-15

SLURRY WATER TEST RESULTS

AMPHENOL CORPORATION

Richardson Hill Road Landfill
Construction of Earthwork Activitics
Contract No.

Shaw Environmental
Project # 843536

LETTER OF TRANSMITTAL

Transmittal No.: 55 Date Submitted: 5/14/03

Section No.: 02250 Resubmittal: Yes / No

Description:

Analytical on the Pond Water to be used as the water source for mixing the slurry for the Extraction Trench and Dust Control

Deviations:

None

Geoff Hobbs 5-14-03
Submitted by/date

Status: (circle one) 1. Approved as Submittal 2. Approved as Noted
3. Returned for Corrections 4. Resubmit (not Approved)

Comments:

Signed by/date

FLI
FRIEND LABORATORY I · N · C

32 ITHACA STREET WAVERLY, NY 14892-1682
TELEPHONE (607) 565-3500 FAX (607) 565-4083

Date: 13-MAY-2003

Lab Sample ID: L104302-1

Shaw Environmental & Infrastructure
Geoff Goolden
2211 Richardson Hill Road
Sidney Center, NY 13839

Sample Source: JOB# 843536
Origin: POND WATER
Description: GRAB
Sampled On: 08-MAY-03 12:30 by CLIENT
Date Received: 08-MAY-03 16:00
P O: No: 215020

Analysis Performed	Result	Units	Detection Limit	Date Analyzed	Method	Notebook Reference
pH	7.60			08-MAY-03 16:00	EPA 150.1	03-023-40
Analysis Comment:pH as Received at Lab.						
Total Hardness	19.5	mg/l	1	13-MAY-03 00:00	EPA 6010	CALCULATION
Solids, Dissolved	47	mg/l	10	08-MAY-03 17:45	EPA 160.1	03-016-60
TOC	U	mg/l	1	08-MAY-03 00:00	SW846 9060	03-024-24
Calcium	4.95	mg/l	0.500	12-MAY-03 00:00	EPA 6010	03-013-09
Magnesium	1.73	mg/l	0.500	12-MAY-03 00:00	EPA 6010	03-013-09
EPA 608						
PCB 1016	U	ug/l	0.05	12-MAY-03 17:44	EPA 608	03-027-1963
PCB 1221	U	ug/l	0.1	12-MAY-03 17:44	EPA 608	03-027-1963
PCB 1232	U	ug/l	0.05	12-MAY-03 17:44	EPA 608	03-027-1963
PCB 1242	U	ug/l	0.05	12-MAY-03 17:44	EPA 608	03-027-1963
PCB 1248	U	ug/l	0.05	12-MAY-03 17:44	EPA 608	03-027-1963
PCB 1254	U	ug/l	0.05	12-MAY-03 17:44	EPA 608	03-027-1963
PCB 1260	U	ug/l	0.05	12-MAY-03 17:44	EPA 608	03-027-1963
Extraction Information:				09-MAY-03 00:00		03-029-34
Surrogate Recovery:						
Tetrachloro-m-xylene	78	%				03-027-1963
Decachlorobiphenyl	55	%				03-027-1963

Report Comment: TOC preserved upon receipt.

Approved by: Cynthia J Hoyt
Lab Director

NY 10252 NJ 73168 PA 68180 EPA NY 00033

KEY: NO or U = None Detected < = less than ug/L = micrograms per liter (equivalent to parts per billion)
mg/L = milligram per liter (equivalent to parts per million) mg/kg = milligrams per kilogram (equivalent to parts per million)
B = analyte was detected in the method or trip blank J = result estimated below the quantitation limit

The information in this report is accurate to the best of our knowledge and ability. In no event shall our liability exceed the cost for these services. Your samples will be discarded after 14 days unless we are advised otherwise.

AMPHENOL CORPORATION

Richardson Hill Road Landfill
Construction of Earthwork Activities
Contract No.

Shaw Environmental
Project # 843536

RECEIVED
JUN 16 2004

LETTER OF TRANSMITTAL

Transmittal No.: 121

Date Submitted: 6/16/04

Section No.: 02250 D.2.

Resubmittal:

Description: Initial biopolymer slurry water sample for 2004

Deviations: _____

Submitted by/date

Status: (circle one) 1. Approved as Submittal 2. Approved as Noted
3. Returned for Corrections 4. Resubmit (not Approved)

Comments:

Signed by/date

Mitkem Corporation

Date: *16-Jun-04*

Client: Shaw Environmental & Infrastructure, Inc.
Client Sample ID: HP01061004
Lab ID: C0555-01

Project: Richardson Hill Landfill Ref# 843536
Collection Date: 06/10/04 11:30

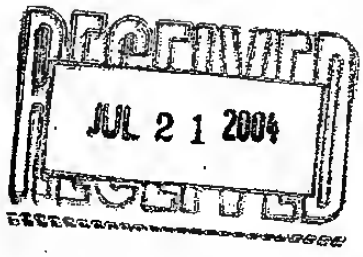
Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch
HARDNESS BY CALCULATION				SM2340_W			
Hardness, Ca/Mg (As CaCO3)	27		4.0	mg/L CaCO3	1	06/12/2004 0:00	13
TOTAL ORGANIC CARBON BY COMBUSTION				E415.1_TOC_W			
Organic Carbon, Total	ND		6.0	mg/L	1	06/15/2004 14:19	13
TOTAL DISSOLVED SOLIDS				SM2540_TDS			
Total Dissolved Solids	47		10	mg/L	1	06/15/2004 14:54	13
PH VALUE				SM4500_H+			
pH	7.2		1.0	S.U.	1	06/11/2004 14:00	R67

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

AMPHENOL CORPORATION

Richardson Hill Road Landfill
Construction of Earthwork Activities
Contract No.



Shaw Environmental
Project # 843536

LETTER OF TRANSMITTAL

Transmittal No.: 132

Date Submitted: 7/21/04

Section No.: 02250 D.2.

Resubmittal:

Description: Biopolymer slurry water sample test results for week of 7/12/2004.

TOC
pH
Total hardness
TDS

Water collected from Howes' Pond.

Deviations: _____

_____

7/21/04
Submitted by/date

Status: (circle one) 1. Approved as Submittal 2. Approved as Noted
3. Returned for Corrections 4. Resubmit (not Approved)

Comments:

_____

_____

_____

_____
Signed by/date

Mitkem Corporation

Date: *20-Jul-04*

Client: Shaw Environmental & Infrastructure, Inc.
Client Sample ID: HP070904
Lab ID: C0683-01

Project: Richardson Hill Landfill Ref# 843536
Collection Date: 07/09/04 11:00

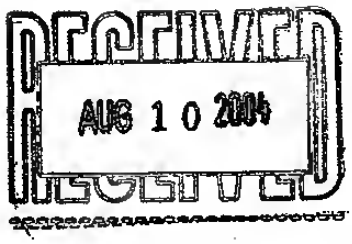
Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
HARDNESS BY CALCULATION			SM2340_W				
Hardness, Ca/Mg (As CaCO3)	31	B	4.0	mg/L CaCO3	1	07/20/2004 0:00	13483
TOTAL ORGANIC CARBON BY COMBUSTION			E415.1_TOC_W				
Organic Carbon, Total	ND		10	mg/L	1	07/13/2004 15:16	13416
TOTAL DISSOLVED SOLIDS			SM2540_TDS				
Total Dissolved Solids	45		10	mg/L	1	07/14/2004 14:18	13479
PH VALUE			SM4500_H+				
pH	7.2		1.0	S.U.	1	07/13/2004 12:30	R7148

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

AMPHENOL CORPORATION

Richardson Hill Road Landfill
Construction of Earthwork Activities
Contract No.



Shaw Environmental
Project # 843536

LETTER OF TRANSMITTAL

Transmittal No.: 133

Date Submitted: 8/10/04

Section No.: 02250 D.2.

Resubmittal:

Description: Biopolymer slurry water sample test results for week of 7/12, 7/19, and 7/26/04.

TOC
pH
Total hardness
TDS

Water collected from Howes' Pond.

Deviations:_____

_____

8/10/04
Submitted by/date

Status: (circle one) 1. Approved as Submittal 2. Approved as Noted
3. Returned for Corrections 4. Resubmit (not Approved)

Comments:

_____

_____

_____

_____
Signed by/date

Mitkem Corporation

Date: *23-Jul-04*

Client: Shaw Environmental & Infrastructure, Inc.
Client Sample ID: HP071504
Lab ID: C0719-01

Project: Richardson Hill Landfill Ref# 843536
Collection Date: 07/15/04 12:15

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
HARDNESS BY CALCULATION				SM2340_W			
Hardness, Ca/Mg (As CaCO3)	32		4.0	mg/L CaCO3	1	07/22/2004 00:00	13552
TOTAL ORGANIC CARBON BY COMBUSTION				E415.1_TOC_W			
Organic Carbon, Total	ND		10	mg/L	1	07/21/2004 08:00	13562
TOTAL DISSOLVED SOLIDS				SM2540_TDS			
Total Dissolved Solids	46		10	mg/L	1	07/20/2004 15:19	13563
PH VALUE				SM4500_H+			
pH	7.5		1.0	S.U.	1	07/20/2004 14:00	R7199

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Corporation

Date: *29-Jul-04*

Client: Shaw Environmental & Infrastructure, Inc.
Client Sample ID: HP072104
Lab ID: C0763-01

Project: Richardson Hill Landfill Ref# 843536
Collection Date: 07/21/04 11:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
HARDNESS BY CALCULATION				SM2340_W			
Hardness, Ca/Mg (As CaCO3)	30		4.0	mg/L CaCO3	1	07/27/2004 0:00	13628
TOTAL DISSOLVED SOLIDS				SM2540_TDS			
Total Dissolved Solids	48		10	mg/L	1	07/26/2004 11:38	13661
PH VALUE				SM4500_H+			
pH	7.4		1.0	S.U.	1	07/22/2004 15:00	R7234

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Corporation

Date: *30-Jul-04*

Client: Shaw Environmental & Infrastructure, Inc.
Client Sample ID: HP072104
Lab ID: C0763-01

Project: Richardson Hill Landfill Ref# 843536
Collection Date: 07/21/04 11:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
TOTAL ORGANIC CARBON BY COMBUSTION				E415.1_TOC_W			
Organic Carbon, Total	ND		10	mg/L	1	07/28/2004 14:51	1371

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Mitkem Corporation

Date: *03-Aug-04*

Client: Shaw Environmental & Infrastructure, Inc.
Client Sample ID: HP072604
Lab ID: C0800-01

Project: Richardson Hill Landfill Ref# 843536
Collection Date: 07/26/04 11:00

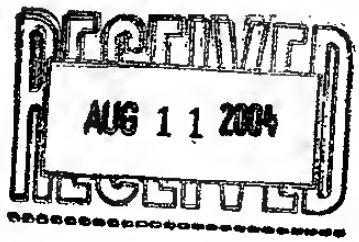
Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
HARDNESS BY CALCULATION				SM2340_W			
Hardness, Ca/Mg (As CaCO3)	32		4.0	mg/L CaCO3	1	07/29/2004 0:00	1371
TOTAL ORGANIC CARBON BY COMBUSTION				E415.1_TOC_W			
Organic Carbon, Total	ND		10	mg/L	1	07/28/2004 14:51	1371
TOTAL DISSOLVED SOLIDS				SM2540_TDS			
Total Dissolved Solids	49		10	mg/L	1	07/28/2004 14:46	1371
PH VALUE				SM4500_H+			
pH	6.5		1.0	S.U.	1	07/27/2004 11:00	R727

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

AMPHENOL CORPORATION

Richardson Hill Road Landfill
Construction of Earthwork Activities
Contract No.



Shaw Environmental
Project # 843536

LETTER OF TRANSMITTAL

Transmittal No.: 137

Date Submitted: 8/11/04

Section No.: 02250 D.2.

Resubmittal:

Description: Biopolymer slurry water sample test results for week of 8/2/04.

pH
Total hardness
TDS

Water collected from Howes' Pond.

Deviations: _____

_____

8/11/04
Submitted by/date

Status: (circle one) 1. Approved as Submittal 2. Approved as Noted
3. Returned for Corrections 4. Resubmit (not Approved)

Comments:

_____

_____

_____

_____
Signed by/date

Mitkem Corporation

Date: *10-Aug-04*

Client: Shaw Environmental & Infrastructure, Inc.
Client Sample ID: HP080204
Lab ID: C0851-01

Project: Richardson Hill Landfill Ref# 843536
Collection Date: 08/02/04 11:05

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
HARDNESS BY CALCULATION				**SM2340_W**			
Hardness, Ca/Mg (As CaCO3)	29		4.0	mg/L CaCO3	1	08/05/2004 0:00	13872
TOTAL DISSOLVED SOLIDS				**SM2540_TDS**			
Total Dissolved Solids	56		10	mg/L	1	08/06/2004 14:27	13977
PH VALUE				**SM4500_H+**			
pH	8.2		1.0	S.U.	1	08/04/2004 16:00	R7395

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

F-16

HDPE VERTICAL BARRIER MANUFACTURER'S TEST DATA

AMPHENOL CORPORATION

Richardson Hill Road Landfill
Construction of Earthwork Activities
Contract No.

Shaw Environmental
Project # 843536

LETTER OF TRANSMITTAL

Transmittal No.: 54

Date Submitted: 05/07/03

Section No.: 02406

Resubmittal: Yes / No

Description: 1.04 A –HDPE Vertical Barrier–Manufacturer's Q.C. Submittals

Deviations: None

Roy Mosely 5/7/03
Submitted by/date

Status: (circle one) 1. Approved as Submittal 2. Approved as Noted
3. Returned for Corrections 4. Resubmit (not Approved)

Comments:

Signed by/date

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-16-03
Panel Number:	1
Roll Number:	215129
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	73° F
Vacuum Test:	(Pass) Sangarloune Sisoumphou

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-16-03
Panel Number:	2
Roll Number:	215129
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	75° F
Vacuum Test:	(Pass) Sangarloune Sisoumphou

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-16-03
Panel Number:	3
Roll Number:	215129
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	75° F
Vacuum Test:	(Pass) Sangarloune Sisoumphou

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-16-03
Panel Number:	4
Roll Number:	215129
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	75° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-16-03
Panel Number:	5
Roll Number:	215129
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	68° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-17-03
Panel Number:	6
Roll Number:	215131
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	70° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-17-03
Panel Number:	7
Roll Number:	215131
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	72° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-17-03
Panel Number:	8
Roll Number:	215131
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	73° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-17-03
Panel Number:	9
Roll Number:	215131
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	76° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-17-03
Panel Number:	10
Roll Number:	215131
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	74° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-17-03
Panel Number:	11
Roll Number:	215131
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	73° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-21-03
Panel Number:	12
Roll Number:	215128
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	75° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-22-03
Panel Number:	13
Roll Number:	215128
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	75° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-22-03
Panel Number:	14
Roll Number:	215128
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	75° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-22-03
Panel Number:	15
Roll Number:	215128
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	77° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-22-03
Panel Number:	16
Roll Number:	215128
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	74° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-23-03
Panel Number:	17
Roll Number:	215128
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	80° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-23-03
Panel Number:	18
Roll Number:	215128
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	79° F
Vacuum Test:	(Pass) Bounleng Inthavong

		Peel	Shear	80-mil HDPE
Destructive Test Results:	Specimen 1	158 lb/in	235 lb/in	Pass
	2	160 lb/in	237 lb/in	Pass
	3	150 lb/in	237 lb/in	Pass
	4	150 lb/in	234 lb/in	Pass
	5	156 lb/in	234 lb/in	Pass

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-24-03
Panel Number:	19
Roll Number:	215126
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	69° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-24-03
Panel Number:	20
Roll Number:	215126
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	70 ° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-24-03
Panel Number:	21
Roll Number:	215126
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	70° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suile 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-28-03
Panel Number:	22
Roll Number:	215124
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	80° F
Vacuum Test:	(Pass) Khamscng Phimmachanh

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-28-03
Panel Number:	23
Roll Number:	215124
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	80° F
Vacuum Test:	(Pass) Khamseng Phimmachanh

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-28-03
Panel Number:	24
Roll Number:	215124
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	82° F
Vacuum Test:	(Pass) Khamseng Phimmachanh

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-28-03
Panel Number:	25
Roll Number:	215124
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	82° F
Vacuum Test:	(Pass) Khamseng Phimmachanh

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-28-03
Panel Number:	26
Roll Number:	215124
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	82° F
Vacuum Test:	(Pass) Khamseng Phimmachanh

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-24-03
Panel Number:	27
Roll Number:	215126
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	82° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-24-03
Panel Number:	28
Roll Number:	215126
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	85° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-24-03
Panel Number:	29
Roll Number:	215126
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	85° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-16-03
Panel Number:	30
Roll Number:	215129
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	83° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-17-03
Panel Number:	31
Roll Number:	215131
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	72° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suile 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-16-03
Panel Number:	32
Roll Number:	215129
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	73° F
Vacuum Test:	(Pass) Sangarloune Sisoumphou

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-16-03
Panel Number:	33
Roll Number:	215129
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	73° F
Vacuum Test:	(Pass) Sangarloune Sisoumphou

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-17-03
Panel Number:	34
Roll Number:	215131
Roll QC Certificate:	Attacbed
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	76° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-17-03
Panel Number:	35
Roll Number:	215131
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	73° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-17-03
Panel Number:	36
Roll Number:	215131
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	70° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.
Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-16-03
Panel Number:	37
Roll Number:	215129
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	68° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-16-03
Panel Number:	38
Roll Number:	215129
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	75° F
Vacuum Test:	(Pass) Sangarloune Sisoumphou

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-24-03
Panel Number:	39
Roll Number:	215126
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	82° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-25-03
Panel Number:	40
Roll Number:	215130
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	83° F
Vacuum Test:	(Pass) Sokuntho Nhem

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-25-03
Panel Number:	41
Roll Number:	215130
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	85° F
Vacuum Test:	(Pass) Sokuntho Nhem

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-24-03
Panel Number:	42
Roll Number:	215126
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	85° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-25-03
Panel Number:	43
Roll Number:	215130
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	78° F
Vacuum Test:	(Pass) Sokuntho Nhem

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-25-03
Panel Number:	44
Roll Number:	215130
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	78° F
Vacuum Test:	(Pass) Sokuntho Nhem

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-24-03
Panel Number:	45
Roll Number:	215126
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	85° F
Vacuum Test:	(Pass) Bounleng Inthavong

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-28-03
Panel Number:	46
Roll Number:	215124
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	82° F
Vacuum Test:	(Pass) Khamseng Phimmachanh

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-25-03
Panel Number:	47
Roll Number:	215130
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	83° F
Vacuum Test:	(Pass) Sokuntho Nhem

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-25-03
Panel Number:	48
Roll Number:	215130
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	85° F
Vacuum Test:	(Pass) Sokuntho Nhem

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-25-03
Panel Number:	49
Roll Number:	215130
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	83° F
Vacuum Test:	(Pass) Sokuntho Nhem

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-25-03
Panel Number:	50
Roll Number:	215130
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	83° F
Vacuum Test:	(Pass) Sokuntho Nhem

201 Penn Center Blvd, Suile 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-28-03
Panel Number:	51
Roll Number:	215124
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	78° F
Vacuum Test:	(Pass) Khamseng Phimmachanh

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

Geo-Solutions, Inc.

Practical Solutions for Soil and Groundwater Construction Problems

Quality Control Certification
Fabricated Vertical Barrier, Sidney, New York P-350

Date:	4-28-03
Panel Number:	52
Roll Number:	215130
Roll QC Certificate:	Attached
Certificate of Analysis:	Attached
Weld Technician:	Phay Chanleut
Welding Equipment:	Dem-Tech Fusion Welder
Weld Temperature:	860° F
Ambient Temperature:	75° F
Vacuum Test:	(Pass) Khamseng Phimmachanh

201 Penn Center Blvd, Suite 401 Pittsburgh, PA 15235 Tel: 412-825-5164 Fax: 412-825-5127

CoA Date: 04/22/2003

Certificate of Analysis

Shipped To: AGRU AMERICA INC
500 GARISON RD
GEORGETOWN SC 29440
USA

Recipient: Grant Palmer
Fax:

CPC Delivery #: 86321550
PO #:
Weight: 182600 LB
Ship Date: 03/03/2003
Package: BULK
Mode: Hopper Car
Car #: PSPX001357

Product:
MARLEX POLYETHYLENE K307 BULK

Lot Number: 8130089

Property	Test Method	Value	Unit
Melt Index	ASTM D1238	0.240	g/10mi
HLMI Flow Rate	ASTM D1238	21.00	g/10mi
Density	ASTM D1505	0.9370	g/cm3
Pellet Count	P02.08.03	24.000	pel/g
Production Date		1/16/.03	

The data set forth herein have been carefully compiled by Chevron Phillips Chemical Company LP. However, there is no warranty of any kind, either expressed or implied, applicable to its use, and the user assumes all risk and liability in connection therewith.

Paul S. Newbold
Sr. Certification Systems Specialist

For CoA questions contact Peter Scheirman at 713-289-4799

TOTAL P.01

agru america
quality control dept

quality certificate

ROLL # 215131 03 Lot #: 8130089 Liner Type: SMOOTH

Thickness..... 2.0 mm 80 mil
Length..... 98 m 322 feet
Width..... 6.86 m 22.5 feet

		METRIC		ENGLISH	
Thickness ASTM D-751/5199 (Modified)	MIN:	1.98	mm	78	mil
	MAX:	2.21	mm	87	mil
	AVE:	2.10	mm	83	mil

					TEST RESULTS
Specific Gravity ASTM D-792	Density		g/cc		.947
MFI ASTM D-1238 COND. E GRADE: K307	Melt Flow Index 190°C 2160 g		g/10 min		.24
Carbon Black Content ASTM D-1603/4218	Range		%		2.47
Carbon Black Dispersion ASTM D-5596	Category				1
Tensile Strength ASTM D-638 (Modified) (2 inches / minute)	Average Strength @ Yield	ppi	217	psi	2,623
	Average Strength @ Break	ppi	376	psi	4,548
Elongation ASTM D-638 (Modified) (2 inches/minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield		%		16.97
	Average Elongation @ Break		%		827.4
Dimensional Stability ASTM D-1204 (Modified)	Average Dimensional Change		%		-0.59
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance		lbs		68.557
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load		lbs		113.840
Puncture Resistance ASTM D-4833 (Modified)	Load		lbs		166.860
ESCR ASTM D-1693	Minimum Hrs w/o Failures	1500 hrs			ONGOING
Notched Constant Tensile Load ASTM D-5397	pass / fail @ 30%	200 hrs			ONGOING

CUSTOMER: Texas Environmental Plastics

P.O.#: 2003-30

DESTINATION Houston, TX

Date: 04-09-03

Signature.....

Quality Control Department

[illegible] REV 04 [illegible]

agru america quality control dept

quality certificate

ROLL # 215130_03 Lot #: 8130089 Liner Type: SMOOTH

		METRIC	ENGLISH
Thickness ASTM D-751/5199 (Modified)	MIN:	2.03 mm	80 mil
	MAX:	2.18 mm	86 mil
	AVE:	2.11 mm	83 mil

Thickness	2.0 mm	80 mil	
Length	98 m	322 feet	
Width	6.86 m	22.5 feet	

					TEST RESULTS
Specific Gravity ASTM D-792	Density	g/cc			.947
MFI ASTM D-1238 COND. E GRADE: K307	Melt Flow Index 190°C 2160 g	g/10 min			.24
Carbon Black Content ASTM D-1603/4218	Range	%			2.47
Carbon Black Dispersion ASTM D-5596	Category				1
Tensile Strength ASTM D-638 (Modified) (2 inches / minute)	Average Strength @ Yield	ppi	218	psi	2,623
	Average Strength @ Break	ppi	378	psi	4,548
Elongation ASTM D-638 (Modified) (2 inches/minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	%			16.97
	Average Elongation @ Break	%			827.4
Dimensional Stability ASTM D-1204 (Modified)	Average Dimensional Change	%			-0.59
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	lbs			68.557
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	lbs			113.849
Puncture Resistance ASTM D-4833 (Modified)	Load	lbs			166.860
ESCR ASTM D-1693	Minimum Hrs w/o Failures	1500 hrs			ONGOING
Notched Constant Tensile Load ASTM D-5397	pass / fail @ 30%	200 hrs			ONGOING

CUSTOMER: Texas Environmental Plastics

P.O.#: 2003-30

DESTINATION Houston, TX

Date: 04-09-03

Signature.....

Quality Control Department

SM60AAFFM REV 04 3/16/01

agru america
quality control dept

quality certificate

ROLL # 215129 03 Lot #: 8130089 Liner Type: SMOOTH

Thickness..... 2.0 mm 80 mil
Length..... 98 m 322 feet
Width..... 6.86 m 22.5 feet

		METRIC	ENGLISH	TEST RESULTS
Thickness ASTM D-751/5199 (Modified)	MIN:	2.03 mm	80 mil	
	MAX:	2.17 mm	85 mil	
	AVE:	2.10 mm	83 mil	
Specific Gravity ASTM D-792	Density		g/cc	.947
MFI ASTM D-1238 COND. E GRADE: K307	Melt Flow Index 190°C 2160 g		g/10 min	.24
Carbon Black Content ASTM D-1603/4218	Range		%	2.47
Carbon Black Dispersion ASTM D-5596	Category			1
Tensile Strength ASTM D-638 (Modified) (2 inches / minute)	Average Strength @ Yield	ppi 217	psi	2,623
	Average Strength @ Break	ppi 376	psi	4,548
Elongation ASTM D-638 (Modified) (2 inches/minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	%		16.97
	Average Elongation @ Break	%		827.4
Dimensional Stability ASTM D-1204 (Modified)	Average Dimensional Change	%		-0.59
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	lbs		68.557
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	lbs		113.840
Puncture Resistance ASTM D-4833 (Modified)	Load	lbs		166.860
ESCR ASTM D-1693	Minimum Hrs w/o Failures	1500 hrs		ONGOING
Notched Constant Tensile Load ASTM D-5397	pass / fail @ 30%	200 hrs		ONGOING

CUSTOMER: Texas Environmental Plastics

P.O.#: 2003-30

DESTINATION Houston, TX

Date: 04-09-03

Signature.....
Quality Control Department

SM60AA.FTM
REV 04
3/16/01

agru america
quality control dept

quality certificate

ROLL # 215128 03 Lot #: 8130089 Liner Type: SMOOTH

		METRIC		ENGLISH	
Thickness ASTM D-751/5199 (Modified)	MIN:	2.04	mm	80	mil
	MAX:	2.19	mm	86	mil
	AVE:	2.12	mm	83	mil

Thickness.....	2.0	mm	80 mil
Length.....	98	m	322 feet
Width.....	6.86	m	22.5 feet

					TEST RESULTS
Specific Gravity ASTM D-792	Density		g/cc		.947
MFI ASTM D-1238 COND. E GRADE: K397	Melt Flow Index 190°C 2160 g		g/10 min		.24
Carbon Black Content ASTM D-1603/4218	Range		%		2.69
Carbon Black Dispersion ASTM D-5596	Category				1
Tensile Strength ASTM D-638 (Modified) (2 inches / minute)	Average Strength @ Yield	ppi	218	psi	2,607
	Average Strength @ Break	ppi	375	psi	4,489
Elongation ASTM D-638 (Modified) (2 inches/minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield		%		17.29
	Average Elongation @ Break		%		838.6
Dimensional Stability ASTM D-1204 (Modified)	Average Dimensional Change		%		-0.59
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance		lbs		67.483
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load		lbs		124.600
Puncture Resistance ASTM D-4833 (Modified)	Load		lbs		171.720
ESCR ASTM D-1693	Minimum Hrs w/o Failures	1500 hrs			ONGOING
Notched Constant Tensile Load ASTM D-5397	pass / fail @ 30%	200 hrs			ONGOING

CUSTOMER: Texas Environmental Plastics

P.O.#: 2003-30

DESTINATION Houston, TX

Date: 04-09-03

Signature.....

Quality Control Department

SM60AAFT3M
REV 01
3/16/01

agru america
quality control dept

quality certificate

ROLL # 215127 03 Lot #: 8130089

Liner Type: SMOOTH

Thickness..... 2.0 mm 80 mil
Length..... 98 m 322 feet
Width..... 6.86 m 22.5 feet

Thickness ASTM D-751/5199 (Modified)	METRIC	ENGLISH
MIN:	2.04 mm	80 mil
MAX:	2.18 mm	86 mil
AVE:	2.11 mm	83 mil

					TEST RESULTS
Specific Gravity ASTM D-792	Density	g/cc			.947
MFI ASTM D-1238 COND. E GRADE: K307	Melt Flow Index 190°C 2160 g	g/10 min			.24
Carbon Black Content ASTM D-1603/4218	Range	%			2.69
Carbon Black Dispersion ASTM D-5596	Category				1
Tensile Strength ASTM D-638 (Modified) (2 inches / minute)	Average Strength @ Yield	ppi	217	psi	2,607
	Average Strength @ Break	ppi	373	psi	4,489
Elongation ASTM D-638 (Modified) (2 inches/minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	%			17.29
	Average Elongation @ Break	%			838.6
Dimensional Stability ASTM D-1204 (Modified)	Average Dimensional Change	%			-0.59
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	lbs			57.483
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	lbs			124.600
Puncture Resistance ASTM D-4833 (Modified)	Load	lbs			171.720
ESCR ASTM D-1693	Minimum Hrs w/o Failures	1500 hrs			ONGOING
Notched Constant Tensile Load ASTM D-5397	pass / fail @ 30%	200 hrs			ONGOING

CUSTOMER: Texas Environmental Plastics
P.O.#: 2003-39
DESTINATION Houston, TX

Date: 04-09-03

Signature.....
Quality Control Department

SM60AA.PM
REV 04
3/16/01

agru america
quality control dept.

quality certificate

ROLL # 215124 03 Lot #: 8130089 **Liner Type: SMOOTH**

		METRIC		ENGLISH	
Thickness ASTM D-751/5199 (Modified)	MIN:	2.02	mm	80	mil
	MAX:	2.22	mm	87	mil
	AVE:	2.11	mm	83	mil

Thickness.....	2.0 mm		80 mil
Length.....	98	m	322 feet
Width.....	6.86	m	22.5 feet

					TEST RESULTS
Specific Gravity ASTM D-792	Density	g/cc			.947
MFI ASTM D-1238 COND. E GRADE: K367	Melt Flow Index 190°C 2160 g	g/10 min			.24
Carbon Black Content ASTM D-1603/4218	Range	%			2.69
Carbon Black Dispersion ASTM D-5596	Category				1
Tensile Strength ASTM D-638 (Modified) (2 inches / minute)	Average Strength @ Yield	ppi	217	psi	2,697
	Average Strength @ Break	ppi	373	psi	4,489
Elongation ASTM D-638 (Modified) (2 inches/minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Yield	%			17.29
	Average Elongation @ Break	%			838.6
Dimensional Stability ASTM D-1204 (Modified)	Average Dimensional Change	%			-0.59
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	lbs			67.483
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	lbs			124.600
Puncture Resistance ASTM D-4833 (Modified)	Load	lbs			171.720
ESCR ASTM D-1693	Minimum Hrs w/o Failures	1500 hrs			ONGOING
Notched Constant Tensile Load ASTM D-5397	pass / fail @ 30%	200 hrs			ONGOING

CUSTOMER: Texas Environmental Plastics

P.O.#: 2003-30

DESTINATION Houston, TX

Date: 04-09-03

Signature.....

Quality Control Department

SM60AAF 9M
REV 04
3/15/01

AMPHENOL CORPORATION

Richardson Hill Road Landfill
Construction of Earthwork Activities
Contract No. 555009

Shaw Environmental
Project # 843536

LETTER OF TRANSMITTAL

Transmittal No.: 15 Date Submitted: 03/28/03

Section No.: 02406 Resubmittal: Yes / No

Description: Manufacturer required submittals for HDPE Vertical Barrier including 1.04A.1 a, b, c, d, e, f, and g. (Note that h will be provided by Shaw in our installation submittal). A sample of the product is also provided for your review.

Deviations: As previously discussed, the electronic verification testing requirement in the spec will not be utilized and we are requesting relief in Section 1.04.2.h, the requirement that the manufacturer manufactured at least 2 million square feet in the last 5 years.

D Ray Moseley 3/28/03
Submitted by/date

Status: (circle one) 1. Approved as Submittal 2. Approved as Noted
3. Returned for Corrections 4. Resubmit (not Approved)

Comments:

Signed by/date

High Density Polyethylene Smooth Sheet

Product Data (Minimum Average Roll Values)

Property	Test Method	Values				
Thickness (mils nominal)	ASTM 6199	30	40	60	80	100
Melt Flow Index, max. (g/10 minutes)	ASTM D1238 - E	.4	.4	.4	.4	.4
Density (g/cm³ min)	ASTM D792	.94	.94	.94	.94	.94
Tensile Strength at Yield (lbs/in. width)	ASTM D638 (Modified)	66	88	132	176	220
Tensile Strength at Break (lbs/in. width)	Type IV Specimen	120	160	240	320	400
Elongation at Yield (%)	Gauge length 2 in. break,	13	13	13	13	13
Elongation at Break (%)	1.3 in. yield, 2 ipm	500	700	700	700	700
Tear Resistance (lbs)	ASTM D1004 - Die C	20	30	45	60	72
Environmental Stress Crack (hrs)	ASTM D1693	1500	1500	1500	1500	1500
Environmental Stress Crack (hrs)	ASTM D5397	200	200	200	200	200
Puncture Resistance (lbs)	FTMS 101 - C, Method 2065	36	52	80	105	130
Puncture Resistance (lbs)	ASTM D4833	54	72	108	144	180
Carbon Black Content (%)	ASTM D1603	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3
Carbon Black Dispersion (Category)	ASTM D5596	1,2	1,2	1,2	1,2	1,2

Supply Information (Standard Roll Dimensions)

Thickness		Width		Length		Area		Weight	
mil	mm	ft	m	ft	m	ft²	m²	lbs	kg
30	.75	22.5	6.86	840	256	18,900	1,756	3,213	1,459
40	1.0	22.5	6.86	650	198	14,625	1,359	3,113	1,412
60	1.5	22.5	6.86	420	128	9,450	878	3,006	1,364
80	2.0	22.5	6.86	320	98	7,200	669	3,067	1,391
100	2.5	22.5	6.86	250	76	5,625	523	2,995	1,359

NOTES: 1.) All rolls are supplied with two slings. 2.) All rolls are fitted with a 6 inch ID HDPE core. 3.) Special roll lengths are available on request. 4.) Standard rolls have a diameter of 29 inches (750 mm). 5.) A 40 foot standard container will hold 15 standard rolls. 6.) A 48 foot flatbed will hold 15 standard rolls.

All information, recommendations and suggestions appearing in this literature concerning the use of our products are based upon tests and data believed to be reliable; however, it is the user's responsibility to determine the suitability for their own use of the products described herein. Since the actual use by others is beyond our control, no guarantee or warranty of any kind, expressed or implied, is made by Agru/America as to the effects of such use or the results to be obtained, nor does Agru/America assume any liability in connection herewith. Any statement made herein may not be absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations. Nothing herein contained is to be construed as permission or as a recommendation to infringe any patent.

High Density Polyethylene Micro Spike® Liner

Product Data (Minimum Average Roll Values)

Property	Test Method	Values				
Thickness (mils nominal)	ASTM 5994	30	40	60	80	100
Melt Flow Index, max. (g/10 minutes)	ASTM D1238 - E	.4	.4	.4	.4	.4
Density (g/cm³ min)	ASTM D792	.94	.94	.94	.94	.94
Tensile Strength at Yield (lbs/in. width)	ASTM D638 (Modified)	70	90	135	180	225
Tensile Strength at Break (lbs/in. width)	Type IV Specimen	72	96	144	192	240
Elongation at Yield (%)	Gauge length 2 in. break,	12	12	12	12	12
Elongation at Break (%)	1.3 in. yield, 2 ipm	400	400	400	400	400
Tear Resistance (lbs)	ASTM D1004 - Die C	23	30	46	60	75
Environmental Stress Crack (hrs)	ASTM D1693	1500	1500	1500	1500	1500
Environmental Stress Crack (hrs)	ASTM D5397	200	200	200	200	200
Puncture Resistance (lbs)	FTMS 101 - C, Method 2065	45	60	90	120	150
Puncture Resistance (lbs)	ASTM D4833	60	90	120	150	180
Carbon Black Content (%)	ASTM D1603/D4218	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3
Carbon Black Dispersion (Category)	ASTM D5596	1,2	1,2	1,2	1,2	1,2

Supply Information (Standard Roll Dimensions)

Thickness		Width		Length		Area		Weight	
mil	mm	ft	m	ft	m	ft²	m²	lbs	kg
30	0.75	23.0	7.0	492	150	11,316	1,051	2,412	1,095
40	1.0	23.0	7.0	492	150	11,316	1,051	3,020	1,373
60	1.5	23.0	7.0	410	125	9,430	876	3,366	1,525
80	2.0	23.0	7.0	328	100	7,544	700	3,506	1,594
100	2.5	23.0	7.0	246	75	5,658	525	3,167	1,439

NOTES: *1.) All rolls are supplied with two slings. 2.) All rolls are fitted with a 6 inch ID HDPE core. 3.) Special roll lengths are available on request. 4.) Standard rolls have a diameter of 29 inches (750 mm). 5.) A 40 foot standard container will hold 12 rolls. 6.) A 48 foot flatbed will hold 12 rolls.*

All information, recommendations and suggestions appearing in this literature concerning the use of our products are based upon tests and data believed to be reliable; however, it is the user's responsibility to determine the suitability for his own use of the products described herein. Since the actual use by others is beyond our control, no guarantee or warranty of any kind, expressed or implied, is made by Agru America as to the effects of such use or the results to be obtained, nor does Agru America assume any liability in connection herewith. Any statement made herein may not be absolutely complete since additional information may be necessary or desirable when particular or exeptional conditions or circumstances exist or because of applicable laws or government regulations. Nothing herein contained is to be construed as permission or as a recommendation to infringe any patent.

Executive Offices: 500 Garrison Road, Georgetown, S.C. 29440 • 843-546-0600 • 800-321-1379 • Fax 843-546-0516
Sales Office: 700 Rockmead, Suite 150, Kingwood, TX 77339 • 281-358-4741 • 800-373-2478 • Fax 281-358-5297

March 20, 2003

This is to certify that no reclaimed polymer and no more than 2% recycled material is added to the resin during the manufacture of 80 mil HDPE. We further certify that all resin used to manufacture the HDPE panels is from the same manufacturer.

P. W. Barker
Technical Director

3.20.03
Date

Executive Offices: 500 Garrison Road, Georgetown, S.C. 29440 • 843-546-0600 • 800-321-1379 • Fax 843-546-0516
Sales Office: 700 Rockmead, Suite 150, Kingwood, TX 77339 • 281-358-4741 • 800-373-2478 • Fax 281-358-5297

March 20, 2003

This is to certify that the resin used in the production of the HDPE panel meets the requirements of Part 2.02A of the specification.

P. W. Barker
Technical Director

3.20.03
Date

CoA Date: 12/05/2002

Certificate of Analysis

Shipped To: AGRU AMERICA INC
500 GARISON RD
GEORGETOWN SC 29440
USA

Recipient: Grant Palmer
Fax: 1-843-546-0516

CPC Delivery #: 86262857
PO #:
Weight: 183800 LB
Ship Date: 12/04/2002
Package: BULK
Mode: Hopper Car
Car #: CHVX896387

Product:
MARLEX POLYETHYLENE K307 BULK

PRODUCTION DATE: 11/29/02

Lot Number: 7121494

Property	Test Method	Value	Unit
Melt Index	ASTM D1238	0.210	g/10mi
HLMI Flow Rate	ASTM D1238	20.00	g/10mi
Density	ASTM D1505	0.9380	g/cm3
Pellet Count	P02.06.03	25.000	pel/g
Production Date		11/29/02	

The date set forth herein have been carefully compiled by Chevron Phillips Chemical Company LP. However, there is no warranty of any kind, either expressed or implied, applicable to its use, and the user assumes all risk and liability in connection therewith.

Paul S. Newbold
Sr. Certification Systems Specialist

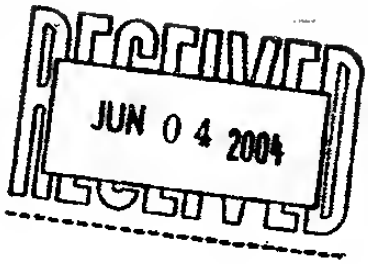
For CoA questions contact Peter Scherman at 713-289-4799

F-17

TRENCH BACKFILL MATERIAL TEST RESULTS

AMPHENOL CORPORATION

Richardson Hill Road Landfill
Construction of Earthwork Activities
Contract No.



Shaw Environmental
Project # 843536

LETTER OF TRANSMITTAL

Transmittal No.: 114

Date Submitted: 6/4/04

Section No.: 02223 2.01F

Resubmittal: No

Description: – Initial Groundwater Extraction Trench Backfill Material sieve analysis and PCB test results.

Gradation specification attached.

Material supplied by Clark

Deviations: Gradation requirement not met for material passing ¼ inch sieve. Requirement is 90 –100 percent where as 73 percent of sample passes this sieve.

PARSONS

Review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Contractor is responsible for compliance with the contract documents, confirming and correlating all quantities and dimensions, selecting fabrication methods and techniques of construction, coordinating his work with other trades, and performance of his work in a safe and satisfactory manner.

Subject To The Above This Submittal Is:

Approved	
Approved As Noted	
To Be Revised And Resubmitted	✓
Disapproved	

By _____

Date 6/9/04

Project # _____

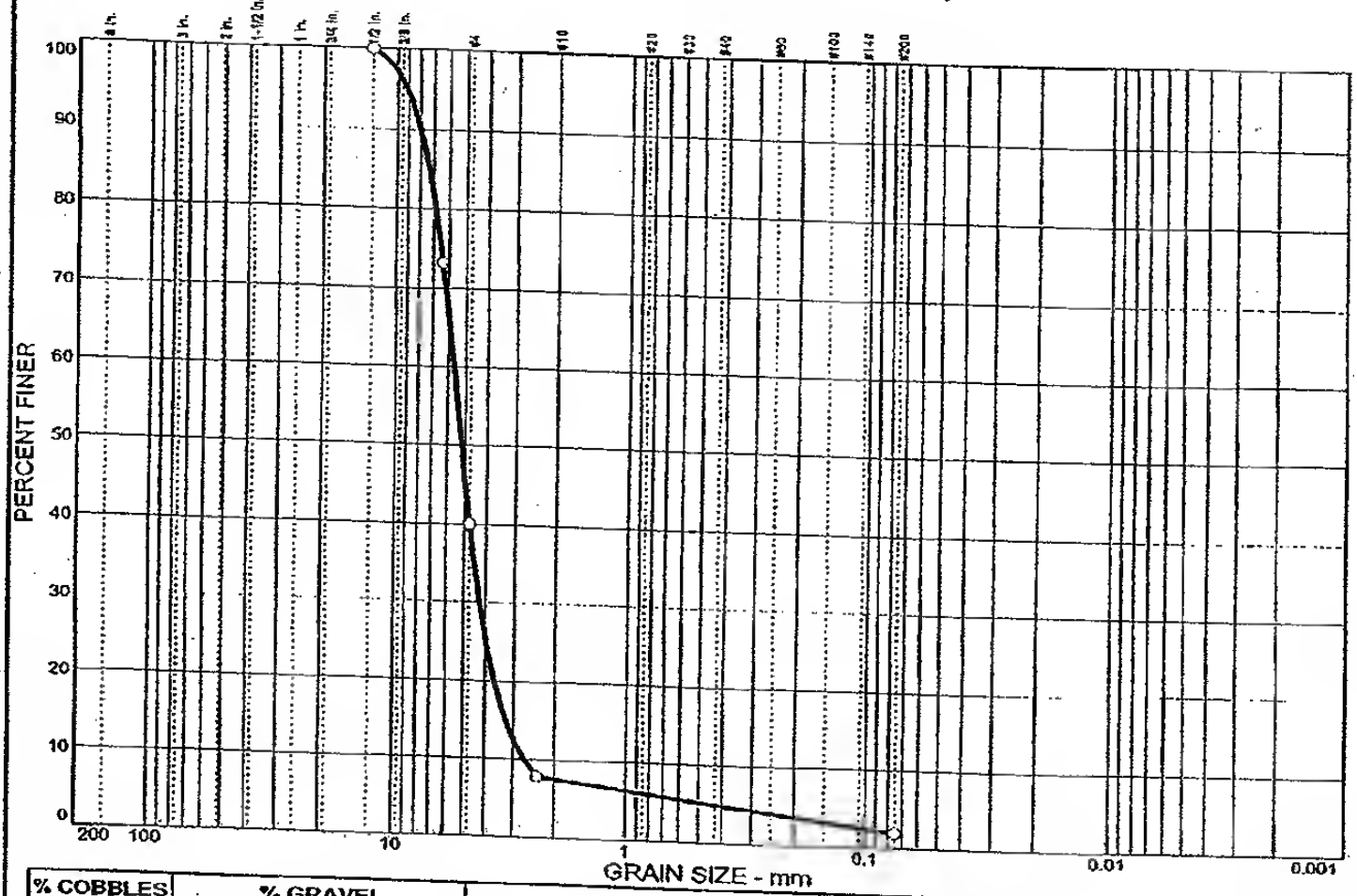
Steve Latta 6/4/04
Submitted by/date

Status: (circle one) 1. Approved as Submitted 2. Approved as Noted
3. Returned for Corrections 4. Resubmit (not Approved)

Comments: SEE ATTACHMENT.

_____
Signed by/date

Particle Size Distribution Report



	% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
○	0.0	60.0	38.0	2.0	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			7.33	5.64	5.19	4.26	3.25	2.69	1.19	2.10

MATERIAL DESCRIPTION

	USCS	AASHTO
○ Dark Brown Poorly graded gravel with sand	GP	A-1-a

Project No. 843536 **Client:** EMCON/OWT

Project: RICHARDSON HILL RD

○ **Source:** **Sample No.:** TS051904

Remarks:

○ Moisture Content = 3.9%
Tested by KP
Entered by KH
Checked by RSA

Particle Size Distribution Report

EMCON/OWT, Inc.

Date: 6-3-04

4. Crushed Slag. Crushed slag particles shall be Material Designation 703-0204 and shall consist of hard, durable, angular fragments which are reasonably uniform in density and quality; free from injurious amounts of sulphur; and reasonably free from thin, elongated pieces, dirt, or other objectional matter. All crushed slag must be obtained from approved sources conforming to the requirements of the Department as to sampling, test methods and any other required procedures.

Gradation. The sizes of all stone, gravel or slag used under these specifications shall conform to the gradation requirements for the various sizes tabulated in Table 703-4.

Primary Size. For the purposes of this specification, the term "Primary Size" shall be defined for each size designation as all of the material passing and retained on the screens specified in Table 703-5, "Primary Sizes."

Tests. The details of test methods for coarse aggregate may be obtained from the Materials Bureau.

TABLE 703-4[1]
SIZES OF STONE, GRAVEL AND SLAG

	Screen Sizes										
Size Designation	100 mm	75 mm	63 mm	50 mm	37.5 mm	25.0 mm	12.5 mm	6.3 mm	3.2 mm	180 µm	75 µm[3]
Screenings[2]	-	-	-	-	-	-	100	90-100	-	-	0-1.0
1B	-	-	-	-	-	-	-	100	90-100	0-15	0-1.0
1A	-	-	-	-	-	-	100	90-100	0-15	-	0-1.0
1ST	-	-	-	-	-	-	100	0-15	-	-	0-1.0
1	-	-	-	-	-	100	90-100	0-15	-	-	0-1.0
2	-	-	-	-	100	90-100	0-15	-	-	-	0-1.0
3A	-	-	-	100	90-100	0-15	-	-	-	-	0-0.7
3	-	-	100	90-100	35-70	0-15	-	-	-	-	0-0.7
4A	-	100	90-100	-	0-20	-	-	-	-	-	0-0.7
4	100	90-100	-	0.15	-	-	-	-	-	-	0-0.7
5	90-100	0-15	-	-	-	-	-	-	-	-	0-0.7

(1) Percentage by weight passing the following square openings.
(2) Screenings shall include all of the fine material passing a 6.3 mm screen.
(3) The minus 75 µm material requirements apply only to aggregate for use in portland cement concrete, surface treatment, and cold mix bituminous pavements. The test (NYSDOT 201) will be performed on the entire sample of the designated size aggregate. Primary size does not apply in the determination of the minus 75 µm material.

All crushing plants shall be fitted with tailing chutes so that no aggregate will reach the bins other than that which passes through the proper screens.

BASIS OF ACCEPTANCE. Acceptance of the source is determined on the basis of tests performed by the Materials Bureau on samples representing the source; review of Quarry Reports; Geologic Source Reports and Plant Flow Information; petrographic examination and other geologic studies; and performance history where applicable. The material is incorporated into the work on the basis that it is from an approved source conforming to procedural requirements of Department and that the aggregate must meet gradation at the point of use.

Aggregate for use in the manufacture of precast concrete units may be accepted on the basis of stockpile approval at a location acceptable to the Department on a per job basis. Requests for stockpile

FORM 1
PCB ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
TS052404

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C0474

Matrix: (soil/water) SOIL Lab Sample ID: C0474-02A

Sample wt/vol: 30.2 (g/mL) G Lab File ID: B1E6555F

% Moisture: 4 decanted: (Y/N) N Date Received: 05/25/04

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/25/04

Concentrated Extract Volume: 10000(uL) Date Analyzed: 05/26/04

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	34	U
11104-28-2	Aroclor-1221	34	U
11141-16-5	Aroclor-1232	34	U
53469-21-9	Aroclor-1242	34	U
12672-29-6	Aroclor-1248	34	U
11097-69-1	Aroclor-1254	34	U
11096-82-5	Aroclor-1260	34	U

AMPHENOL CORPORATION

Richardson Hill Road Landfill
Construction of Earthwork Activities
Contract No.

Shaw Environmental
Project # 843536

LETTER OF TRANSMITTAL

Transmittal No.: 119

Date Submitted: 6/15/04

Section No.: 02223 2.01F

Resubmittal: No. 114

Description: – Initial Groundwater Extraction Trench Backfill Material permeability test result. This information is supplemental to that provided in Transmittal No. 114 dated 6/4/2004.

Material supplied by Clark

Deviations: _____

_____

_____ 6/15/04
Submitted by/date

Status: (circle one) 1. Approved as Submittal 2. Approved as Noted
3. Returned for Corrections 4. Resubmit (Not Approved)

Comments:

_____

_____

_____

_____
Signed by/date

EMCON/OWT, INC.

PERMEABILITY TEST BY CONSTANT HEAD METHOD
ASTM D2434

Project: RICHARDSON HILL RD. LANDFILL Proj. #: 843536

Client: SHAW E & I. Date: 6-14-04

Sample ID: TS 051904
Description:

Unit Weight Determination:

Diameter,D	11.35	cm
Area, A	101.2	cm2
Length, L	11.43	cm

Height of Mold	8.25	in.
Height from top of Mold	1.10	in.
Height of Sample, H, in.	7.15	in.

	Initial (lbs.)	Final (lbs.)	Dry
Soil & Tare	6.97	8.96	8.54
Tare	0.00	1.72	1.72
Soil	6.97	7.24	6.82

Moisture Content

Initial:	2.2	%
Final:	6.2	%

Density Dry, W: 105.10 pcf

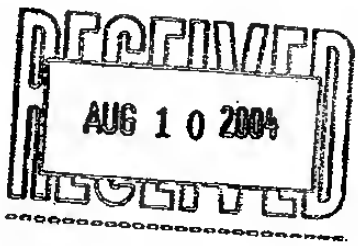
Void Ratio,e: 0.6321
Specific Gravity: 2.7490

Test #	Manometers h1	Manometers h2	Head,h cm	Q ml	t sec.	Q/At	h/L	Temp C	k cm/s
1	48.2	48.0	0.2	1000	92	0.1074	0.02	0.976	5.992E+00
	48.2	48.0	0.2	1000	92	0.1074	0.02	0.976	5.992E+00
	48.2	48.0	0.2	1000	92	0.1074	0.02	0.976	5.992E+00
2	48.0	47.7	0.3	1000	70	0.1412	0.03	0.976	5.250E+00
	48.0	47.7	0.3	1000	70	0.1412	0.03	0.976	5.250E+00
	48.0	47.7	0.3	1000	70	0.1412	0.03	0.976	5.250E+00
3	46.4	46.0	0.4	1000	55	0.1797	0.03	0.976	5.012E+00
	46.4	46.0	0.4	1000	55	0.1797	0.03	0.976	5.012E+00
	46.4	46.0	0.4	1000	55	0.1797	0.03	0.976	5.012E+00
4	41.6	41.1	0.5	1000	43	0.2298	0.04	0.976	5.128E+00
	41.6	41.1	0.5	1000	43	0.2298	0.04	0.976	5.128E+00
	41.6	41.1	0.5	1000	43	0.2298	0.04	0.976	5.128E+00
5	39.3	38.7	0.6	1000	36	0.2745	0.05	0.976	5.104E+00
	39.3	38.7	0.6	1000	36	0.2745	0.05	0.976	5.104E+00
	39.3	38.7	0.6	1000	36	0.2745	0.05	0.976	5.104E+00

Remarks: Recompacted sample.
Tested with tap water.

AMPHENOL CORPORATION

Richardson Hill Road Landfilt
Construction of Earthwork Activitics
Contract No.



Shaw Environmental
Project # 843536

LETTER OF TRANSMITTAL

Transmittal No.: 134 Date Submitted: 8/10/04

Section No.: 02223 2.01F Resubmittal: No

Description: – Groundwater Extraction Trench Backfill Material sieve analysis, permeability test, and PCB test results.

Gradation specification attached.

Material supplied by Clark

Deviations: Gradation requirement not met for material passing no. 200 sieve. Requirement is 1.0 percent. Sieve analysis indicates 1.7 percent passes.

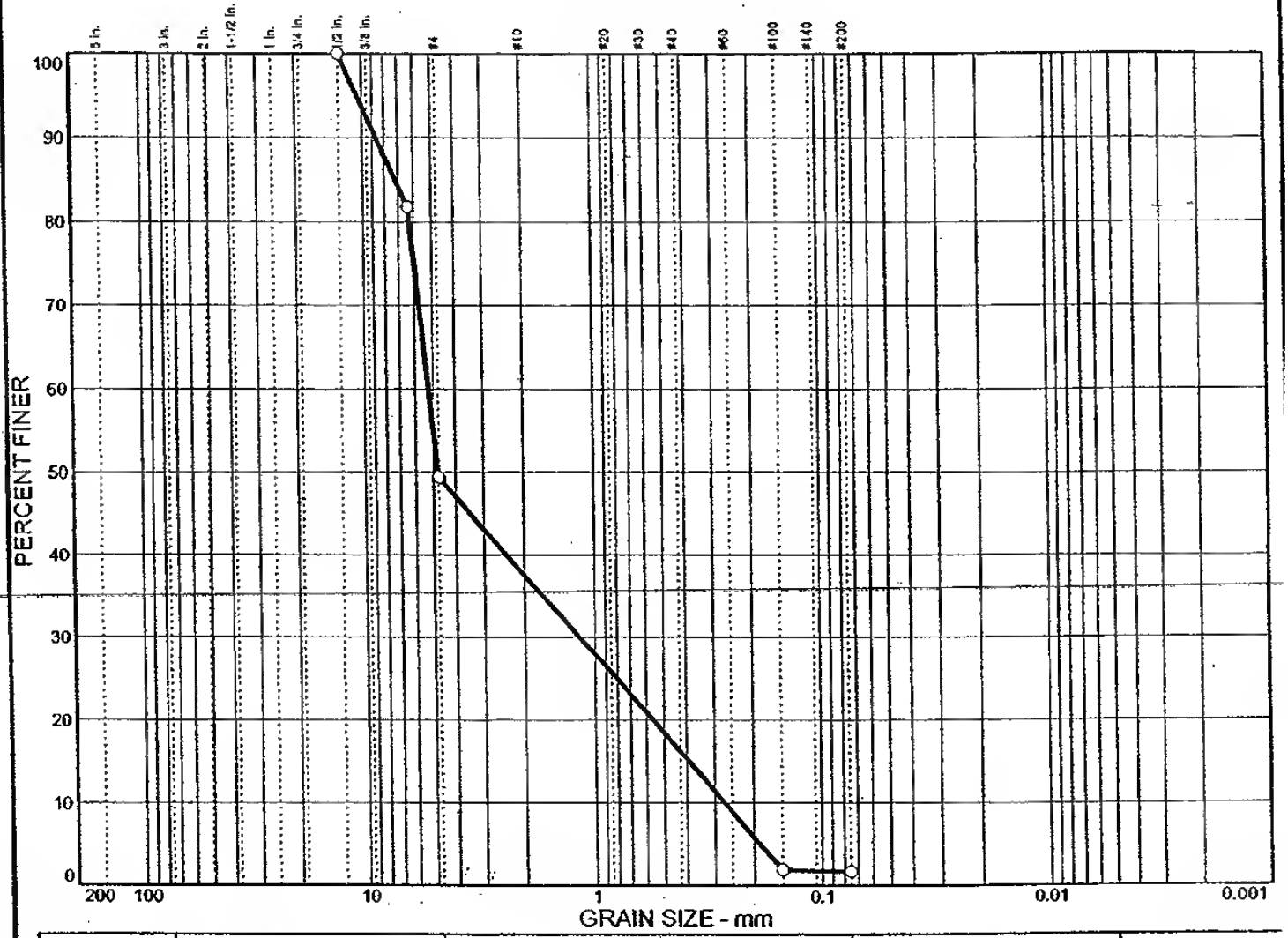
Submitted by/date

Status: (circle one) 1. Approved as Submittal 2. Approved as Noted
3. Returned for Corrections 4. Resubmit (not Approved)

Comments:

Signed by/date

Particle Size Distribution Report



	% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
○	0.0	50.6	47.7	1.7	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			7.17	5.25	4.78	1.16	0.389	0.270	0.95	19.40

MATERIAL DESCRIPTION	USCS	AASHTO
○ Reddish Brown Poorly graded gravel with sand	GP	A-1-a

Project No. 843536 **Client:** EMCON/OWT

Project: RICHARDSON HILL RD

○ **Source:** **Sample No.:** TS-072104

Remarks:

○ Moisture Content = 4.2%

Tested by KP

Entered by KH

Checked by RSA

Particle Size Distribution Report

EMCON/OWT, Inc.

Date: 7-26-04

4. Crushed Slag. Crushed slag particles shall be Material Designation 703-0204 and shall consist of hard, durable, angular fragments which are reasonably uniform in density and quality; free from injurious amounts of sulphur; and reasonably free from thin, elongated pieces, dirt, or other objectional matter. All crushed slag must be obtained from approved sources conforming to the requirements of the Department as to sampling, test methods and any other required procedures.

Gradation. The sizes of all stone, gravel or slag used under these specifications shall conform to the gradation requirements for the various sizes tabulated in Table 703-4.

Primary Size. For the purposes of this specification, the term "Primary Size" shall be defined for each size designation as all of the material passing and retained on the screens specified in Table 703-5, "Primary Sizes."

Tests. The details of test methods for coarse aggregate may be obtained from the Materials Bureau.

TABLE 703-4[1]
SIZES OF STONE, GRAVEL AND SLAG

	Screen Sizes										
Size Designation	100 mm	75 mm	63 mm	50 mm	37.5 mm	25.0 mm	12.5 mm	6.3 mm	3.2 mm	480 µm	75 µm[3]
Screenings[2]	-	-	-	-	-	-	100	90-100	-	-	0-1.0
1B	-	-	-	-	-	-	-	100	90-100	0-15	0-1.0
1A	-	-	-	-	-	-	100	90-100	0-15	-	0-1.0
1ST	-	-	-	-	-	-	100	0-15	-	-	0-1.0
1	-	-	-	-	-	100	90-100	0-15	-	-	0-1.0
2	-	-	-	-	100	90-100	0-15	-	-	-	0-1.0
3A	-	-	-	100	90-100	0-15	-	-	-	-	0-0.7
3	-	-	100	90-100	35-70	0-15	-	-	-	-	0-0.7
4A	-	100	90-100	-	0-20	-	-	-	-	-	0-0.7
4	100	90-100	-	0.15	-	-	-	-	-	-	0-0.7
5	90-100	0-15	-	-	-	-	-	-	-	-	0-0.7

(1) Percentage by weight passing the following square openings.
(2) Screenings shall include all of the fine material passing a 6.3 mm screen.
(3) The minus 75 µm material requirements apply only to aggregate for use in portland cement concrete, surface treatment, and cold mix bituminous pavements. The test (NYSDOT 201) will be performed on the entire sample of the designated size aggregate. Primary size does not apply in the determination of the minus 75 µm material.

All crushing plants shall be fitted with tailing chutes so that no aggregate will reach the bins other than that which passes through the proper screens.

BASIS OF ACCEPTANCE. Acceptance of the source is determined on the basis of tests performed by the Materials Bureau on samples representing the source; review of Quarry Reports; Geologic Source Reports and Plant Flow Information; petrographic examination and other geologic studies; and performance history where applicable. The material is incorporated into the work on the basis that it is from an approved source conforming to procedural requirements of Department and that the aggregate must meet gradation at the point of use.

Aggregate for use in the manufacture of precast concrete units may be accepted on the basis of stockpile approval at a location acceptable to the Department on a per job basis. Requests for stockpile

EMCON/OWT, INC.

PERMEABILITY TEST BY CONSTANT HEAD METHOD
ASTM D2434

Project: RICHARDSON HILL RD. LANDFILL Proj. #: 843536

Client: SHAW E & I. Date: 7-24-04

Sample ID: TS-072104
Description:

Unit Weight Determination:

Diameter,D	11.35	cm	
Area, A	101.2	cm2	
Length, L	11.43	cm	
Height of Mold	8.25	in.	
Height from top of Mold	0.96	in.	
Height of Sample, H, in.	7.29	in.	

	Initial (lbs.)	Final (lbs.)	Dry
Soil & Tare	6.89	8.17	7.77
Tare	0.00	1.10	1.10
Soil	6.89	7.07	6.67

Moisture Content

Initial: 3.3 %
Final: 6.0 %

Density Dry, W: 100.82 pcf

Void Ratio,e: 0.6912
Specific Gravity: 2.7323

Test #	Manometers h1	Manometers h2	Head,h cm	Q ml	t sec.	Q/At	h/L	Temp C	k cm/s
1	47.9	47.8	0.1	1000	111	0.0890	0.01	0.976	9.933E+00
	47.9	47.8	0.1	1000	111	0.0890	0.01	0.976	9.933E+00
	47.9	47.8	0.1	1000	111	0.0890	0.01	0.976	9.933E+00
2	47.2	47.0	0.2	1000	83	0.1191	0.02	0.976	6.642E+00
	47.2	47.0	0.2	1000	83	0.1191	0.02	0.976	6.642E+00
	47.2	47.0	0.2	1000	83	0.1191	0.02	0.976	6.642E+00
3	43.4	43.1	0.3	1000	58	0.1704	0.03	0.976	6.337E+00
	43.4	43.1	0.3	1000	58	0.1704	0.03	0.976	6.337E+00
	43.4	43.1	0.3	1000	58	0.1704	0.03	0.976	6.337E+00
4	40.0	39.6	0.4	1000	45	0.2196	0.03	0.976	6.125E+00
	40.0	39.6	0.4	1000	45	0.2196	0.03	0.976	6.125E+00
	40.0	39.6	0.4	1000	45	0.2196	0.03	0.976	6.125E+00
5	35.0	34.5	0.5	1000	38	0.2601	0.04	0.976	5.803E+00
	35.0	34.5	0.5	1000	38	0.2601	0.04	0.976	5.803E+00
	35.0	34.5	0.5	1000	38	0.2601	0.04	0.976	5.803E+00

Remarks: Recompacted sample.
Tested with tap water.

FORM 1
PCB ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

TS072104

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: C0763

Matrix: (soil/water) SOIL Lab Sample ID: C0763-02A

Sample wt/vol: 30.0 (g/mL) G Lab File ID: E3E7290F

% Moisture: 20 decanted: (Y/N) N Date Received: 07/22/04

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 07/23/04

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/24/04

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	41	U
11104-28-2	Aroclor-1221	41	U
11141-16-5	Aroclor-1232	41	U
53469-21-9	Aroclor-1242	41	U
12672-29-6	Aroclor-1248	41	U
11097-69-1	Aroclor-1254	41	U
11096-82-5	Aroclor-1260	41	U

PRELIMINARY

F-18

HDPE PIPE PROPERTIES

AMPHENOL CORPORATION

Richardsoo Hill Road Landfill
Coostruction of Earthwork Activities
Contract No.

Shaw Environmental
Project # 843536

LETTER OF TRANSMITTAL

Transmittal No.: 75 Date Submitted: June 10, 2003

Section No.: 02727 Resubmittal: Yes / No

Description: 1.04 B through G (Whole package on drainage piping)

Deviations:

_____

_____

_____

_____

Submitted by/date 6-10-03

Status: (circle one) 1. Approved as Submittal 2. Approved as Noted
3. Returned for Corrections 4. Resubmit (not Approved)

Comments:

_____

_____

_____

Signed by/date

Rinker Materials
PolyPipe®
2706 N I35
Gainesville TX. 76240

Phone: 940-665-1721 Fax: 940-668-8612

PRODUCT CERTIFICATION

Delivery / Picking Number:	

Ship To:			Customer:	American Plastic Pipe and Supply L.L.C.
				725 S. Friendship Dr.
				New Concord, OH. 43762

Dear Customer:

Rinker Materials PolyPipe® certifies that the listed piping products were produced from resins and concentrates as determined by and defined in ASTM D3350. Routine in-plant inspection, quality control sampling, and long term testing meets or exceeds the customer specifications or standards listed below:

	API Spec 15LE	
	AWWA C901 / C906	
	Factory Mutual per Rinker Materials PolyPipe® MS-1116	
	NSF 14 / 61	
	NSF 61	
	IAPMO	
X	ASTM	
	Customer Specification	
X	PPI Rating for PE	3408
	PE2406 Type II, Grade P24 Category 5 with Cell Classification of 234363C, D or E HDB 1250 @ 23° C	
X	PE3408 Type III, Grade P34 Category 5 with Cell Classification of 345464C, D or E HDP 1600 @ 23° C	

Products: [redacted]
POLYPIPE EHMW PE3408 24" SDR 11 ASTM F714 C3 X58 L17 11GC 26OCT02

Certified By: Chris W. Jones Position: Lab Technician Date: 6/4/03

7.10.12
Issued by: Terry L. Bryant
Approved by: Allison Crabtree
Issue Date: 10/13/1998
Revision:09/05/2001

Rinker Materials
PolyPipe®
1050 Industrial Drive South
Erwin, TN 37650

Phone: 423-743-9116 Fax: 423-743-8419

PRODUCT CERTIFICATION

Delivery / Picking Number: _____

Ship To:	Same		Customer:	AMERICAN Plastic Pipe and Supply
				725 S. Friendship Dr.
				New Concord, OH 43762
				(phone) 740-826-7683
				740-826-9047

Dear Customer:

Rinker Materials PolyPipe® certifies that the listed piping products were produced from resins and concentrates as determined by and defined in ASTM D3350. Routine in-plant inspection, quality control sampling, and long term testing meets or exceeds the customer specifications or standards listed below:

_____	API Spec 15LE
_____	AWWA C901 / C906
_____	Factory Mutual per Rinker Materials PolyPipe® MS-1116
_____	NSF 14 / 61
_____	NSF 61
_____	IAPMO
X	ASTM D2513
X	Customer Specification
X	PPI Rating for PE 3408
_____	PE2406 Type II, Grade P24 Category 5 with Cell Classification of 234363C, D or E HDB 1250 @ 23° C
X	PE3408 Type III, Grade P34 Category 5 with Cell Classification of 345464C, D or E HDP 1600 @ 23° C

Products: P.O. # SHIP DATE:
PolyPipe 4810 Gas PE3408 6"IPS SDR 11 ASTM D2513 cdc ASTM F714 C3
X37L11 2ED 25NOV02
G/I Pipe
The pipe with this Printline meets or exceeds necessary requirements

Certified By: Tim Moore Position: Quality Control Date: 6/4/2003

Tim Moore

7.10.12
Issued by: Terry L. Bryant
Approved by: Allison Crabtree
Issue Date: 10/13/1998
Revision: 09/05/2001

Rinker Materials
PolyPipe®
1050 Industrial Drive South
Erwin, TN 37650

Phone: 423-743-9116 Fax: 423-743-8419

PRODUCT CERTIFICATION

Delivery / Picking Number: _____

Ship To:	Same		Customer:	AMERICAN Plastic Pipe and Supply
				725 S. Friendship Dr.
				New Concord, OH 43762
				(phone) 740-826-7683
				740-826-9047

Dear Customer:

Rinker Materials PolyPipe® certifies that the listed piping products were produced from resins and concentrates as determined by and defined in ASTM D3350. Routine in-plant inspection, quality control sampling, and long term testing meets or exceeds the customer specifications or standards listed below:

_____	API Spec 15LE
_____	AWWA C901 / C906
_____	Factory Mutual per Rinker Materials PolyPipe® MS-1116
_____	NSF 14 / 61
_____	NSF 61
_____	IAPMO
X	ASTM D2513
X	Customer Specification
X	PPI Rating for PE 3408
_____	PE2406 Type II; Grade P24 Category 5 with Cell Classification of 234363C, D or E HDB 1250 @ 23° C
X	PE3408 Type III, Grade P34 Category 5 with Cell Classification of 345464C, D or E HDP 1600 @ 23° C
_____	

Products: P.O. # SHIP DATE:
PolyPipe 4810 Gas PE3408 4"IPS SDR 11 ASTM D2513 cdc ASTM F714 C3
N11W00 2EB 30JAN01
G/I Pipe
The pipe with this Printline meets or exceeds necessary requirements

Certified By: Tim Moore Position: Quality Control Date: 6/4/2003

Tim Moore

Rinker Materials
PolyPipe®
1050 Industrial Drive South
Erwin, TN 37650

Phone: 423-743-9116 Fax: 423-743-8419

PRODUCT CERTIFICATION

Delivery / Picking Number: _____

Ship To:	Same		Customer:	AMERICAN Plastic Pipe and Supply
				725 S. Friendship Dr.
				New Concord, OH 43762
				(phone) 740-826-7683
				740-826-9047

Dear Customer:

Rinker Materials PolyPipe® certifies that the listed piping products were produced from resins and concentrates as determined by and defined in ASTM D3350. Routine in-plant inspection, quality control sampling, and long term testing meets or exceeds the customer specifications or standards listed below:

____	API Spec 15LE
____	AWWA C901 / C906
____	Factory Mutual per Rinker Materials PolyPipe®
____	MS-1116
____	NSF 14 / 61
____	NSF 61
____	IAPMO
X	ASTM D2513
X	Customer Specification
X	PPI Rating for PE 3408
____	PE2406 Type II, Grade P24 Category 6 with Cell Classification of 234363C, D or E HDB 1250 @ 23° C
X	PE3408 Type III, Grade P34 Category 5 with Cell Classification of 345464C, D or E HDP 1600 @ 23° C

Products: P.O. # SHIP DATE:
PolyPipe 4810 Gas PE3408 3"IPS SDR 11 ASTM D2513 cdc ASTM F714 C3
X55Lo5 1EB 16May02
G/I Pipe
The pipe with this Printline meets or exceeds necessary requirements

Certified By: Tim Moore Position: Quality Control Date: 6/4/2003

Tim Moore

F-19

HDPE PANEL REPAIR DOCUMENTATION

AMPHENOL CORPORATION

Richardson Hill Road Landfill
Construction of Earthwork Activities
Contract No.

Shaw Environmeotal
Project # 843536

LETTER OF TRANSMITTAL

Transmittal No.: 128

Date Submitted: 7/6/04

Section No.: 02406

Resubmittal:

Deviations: _____

_____

7/6/04
Submitted by/date

Status: (circle one) 1. Approved as Submittal 2. Approved as Noted
3. Returned for Corrections 4. Resubmit (not Approved)

Comments:

HDPE vertical barrier (panels #50 and #51) repair documentation.

_____

_____

_____
Signed by/date

CHENANGO CONTRACTING, INC.

29 ARBUTUS RD, JOHNSON CITY, NY 13790
TEL. (607) 729-8500 FAX (607) 729-2415

GEOMEMBRANE TRIAL SEAM LOG

PROJECT NAME: RICHARDSON HILL LANDFILL
PROJECT NUMBER:
QC REP.:

	SMOOTH (ppi)		TEXTURED (ppi)	
	PEEL	SHEAR	PEEL	SHEAR
FUSION (min.)				
EXTRUSION (min.)				

						Fusion		Extrusion		Peel #1		Peel #2		Peel #3		Shear	Shear	Shear
Date	Time	Temp (deg F)	Mach. No.	Tech ID	Setup S/T	Temp (deg C)	Speed (ft/m)	Preheat (deg F)	Barrel (deg F)	In	Out	In	Out	In	Out	#1	#2	#3
TRIAL → WELD 6/22/04	2:30	65	22	BTK	S/M			475	500	150		169		147		147	246	230
		DATA #1		V-BOX		(PANEL 50)												
		#2		"		" (PANEL 51)												

F-2

GWTP SUBGRADE COMPACTION TEST RESULTS

CME Associates, Inc.
Construction Materials Evaluation

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Landfill
DATE: October 8, 2002
CLIENT: Parsons
REPORT NO.: 20013S-01-1002
TEST METHOD: Nuclear Density Gauge
REPRESENTATIVE: J. Brotzman
MATERIAL TYPE/SOURCE: Brown cmf SAND and cmf GRAVEL, trace SILT / CLAY
WEATHER: Sunny
TEMPERATURE: 65 °F
PAGE: 1 of 1

REMARKS:

This representative was onsite to conduct in-place field density testing on fill material, heing placed and compacted at the above referenced project.

The tests show that the required percentage of compaction was achieved at the locations and elevation tested.

Ed Rudy of Parsons was informed of today's test results.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	A.5 x 5	1790'	5.8	6.5	134.9	140.5	96.1	95.0
2	A x 4.5	1790'	6.4	6.5	133.5	140.5	95.1	95.0
3	A x 3.5	1790'	5.7	6.5	133.7	140.5	95.3	95.0
4	B.5 x 5	1790'	5.9	6.5	133.9	140.5	95.3	95.0
5	C.5 x 5	1790'	6.0	6.5	134.7	140.5	95.9	95.0
6	D x 4.5	1791'	6.3	6.5	134.0	140.5	95.4	95.0
7	D x 3.5	1790'	6.2	6.5	136.8	140.5	97.4	95.0

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.
Construction Materials Evaluation

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Landfill
CLIENT: Parsons
TEST METHOD: Nuclear Density Gauge
MATERIAL TYPE/SOURCE: Brown cmf SAND and cmf GRAVEL, trace SILT
WEATHER: Rainy

DATE: October 10, 2002
REPORT NO.: 20013S-02-1002
REPRESENTATIVE: T. Wheeler
TEMPERATURE: °F
PAGE: 1 of 1

REMARKS:

This representative was on site to conduct in-place field density testing. Material was placed with a track hoe and compacted with a vibratory roller by Gary Dyer.

The tests show that the required percentage of compaction was achieved at the locations and elevation tested.

Ed Rudy of Parsons was informed of today's test results.

RESULTS: Test Elevation: Below finished floor

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	50'E of west wall, 5'S of north wall, inside.	3' 9"	6.6	6.5	133.9	140.5	95.3	95.0
2	15'W of east wall, 2'S of north wall, inside.	3' 9"	7.4	6.5	138.2	140.5	98.4	95.0
3	2'W of east wall, 10'S of north wall, inside.	3' 9"	7.2	6.5	137.0	140.5	97.5	95.0
4	1'W of east wall, 45'N of south wall, inside.	3' 9"	6.4	6.5	134.8	140.5	95.9	95.0
5	15'S of south wall, outside. 50'W of storage barn.	5' 5"	7.1	6.5	136.4	140.5	97.1	95.0

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.

MATERIALS TESTING DIVISION

FORM S-1.2 OF 2

IN-PLACE FIELD DENSITY TESTS

PROJECT RHRL JOB NUMBER _____ PAGE 1 OF 1

CLIENT Parsons. DATE 10/10/02

TEST METHOD Nuclear TECHNICIAN Tom Wheeler

MATERIAL TYPE & SOURCE Item 4 / ~~Granite Pit~~ Bare Bridge Pit

WEATHER Rainy

REMARKS: Rep was onsite to perform In-Place Field Density Testing. Material was placed with a truck hoe and compacted with a vebital Roller by Gary Dyer. The test results show that the required percentage of compaction was achieved at the location and elevation of the test. The test results were Reported to Ed Rudy of Parsons.

RESULTS:

Test No.	Test Location	Test Elevation	Moist Cont. (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compact Achieved (%)	Compact Required (%)
1	50' E of W wall & 5' S of N wall inside	3'9" Below F Floor.	6.6	6.5%	133.9	140.5	95.3	95.0%
2	15' W of E wall 2' S of N wall inside	"	7.4		138.2		98.4	
3	2' W of E wall 10' S of N wall "	"	7.2		137.0		97.5	
4	1' W of E wall 45' N of S wall "	"	6.4		134.8		95.9	
5	15' S of S wall outside 50' W of Storage Barn	5'5" "	7.1		136.4		97.1	
6								
7								
8								
9								
10								

CME Associates, Inc.

Construction Materials Evaluation

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Landfill
DATE: October 24, 2002
CLIENT: Parsons
REPORT NO.: 20013S-03-1002
TEST METHOD: Nuclear Density Gauge
REPRESENTATIVE: J. Wheeler
MATERIAL TYPE/SOURCE: Brown cmf SAND and cmf GRAVEL, trace SILT / CLAY
WEATHER: Clear
TEMPERATURE: °F
PAGE: 1 of 1

REMARKS:

This representative was on site to conduct in-place field density testing on backfill placed inside the foundation walls.

The tests show that the required percentage of compaction was achieved at the locations and elevation tested.

Gary Dyer of Gary Dyer Excavating was informed of today's results.

Note: Top of foundation wall elevation referenced from wall on column line #5, A-D.

RESULTS: Test Elevation: Below top of foundation wall.

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	4.5, C.8	4'	7.0	6.5	136.4	140.5	97.0	95.0
2	4.8, C	4'	7.5	6.5	138.1	140.5	98.3	95.0
3	4.8, B	4'	7.7	6.5	137.3	140.5	97.7	95.0
4	4.5, C.8	3' 4"	8.3	6.5	136.6	140.5	97.2	95.0
5	4.8, C	3' 4"	7.9	6.5	137.0	140.5	97.5	95.0
6	4.8, B	3' 4"	6.4	6.5	137.0	140.5	97.5	95.0
7	4.5, C.8	2' 8"	7.5	6.5	136.6	140.5	97.2	95.0
8	4.8, C	2' 8"	8.0	6.5	134.4	140.5	95.6	95.0
9	4.8, B	2' 8"	7.9	6.5	137.5	140.5	97.8	95.0
10	4.5, C.8	2'	7.0	6.5	138.4	140.5	95.5	95.0
11	4.8, C	2'	7.4	6.5	135.3	140.5	96.3	95.0
12	4.8, B	2'	737	6.5	136.5	140.5	97.2	95.0
13	4.5, C.5	2'	6.8	6.5	138.4	140.5	98.5	95.0
14	4.5, B	2'	6.4	6.5	135.5	140.5	96.4	95.0

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.

MATERIALS TESTING DIVISION

FORM S-1.2 OF 2

IN-PLACE FIELD DENSITY TESTS

PROJECT Richardson Hill Land Fill JOB NUMBER 20013 PAGE 1 OF 1

CLIENT Parsons DATE 10/24/02

TEST METHOD Nuclear TECHNICIAN D Scimi

MATERIAL TYPE & SOURCE Item 4 / Basin Borg Pit

WEATHER cloudy

REMARKS: This rep was on site To ~~per~~ conduct In place Field Density Test at The above referenced Project. Back Fill around Wells was being Placed

The Test results show That The required ~~percentage~~ of compaction was achieved at The Test Elevation and Test Location.

Ed Rudy of Parsons was informed of Todays Test results

RESULTS: All Elevations Referenced from Top of South wall 1792'-9"

Test No.	Test Location	Test Elevation	Moist Cont. (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compact Achieved (%)	Compact Required (%)
1	12'W of SE ~~wall~~ corner	1788-9	8.3	6.5	134.8	140.5	96.0	95 &
2	2'N & 1'W of 2D	1788-9	7.4		136.9		97.5	
3	1'N & 10'W of 1D	1788-0	7.6		138.1		98.7	
4	12'N & 2'W of 1D	1788-0	7.4		136.6		97.2	
5	6'N & 12'W of 4D	1790-0	7.2		138.0		98.2	
6	1'W & 1'S of 3D	1788-0	7.3		134.5		95.8	
7	7'S & 2'W of 2D	1789-0	7.3		135.7		96.6	
8	2'N & 12'W of 1D	1789-0	7.3		137.8		98.1	
9	3'S & 2'W of 3D	1789-0	7.2		135.6		96.5	
10	2'N & 10'W of 1D	1789-6	7.1		137.0		97.5	
11	2'W & 9'S of 2D	1789-6	7.3		137.8		98.1	
12	2'W & 5'S of 3D	1789-6	7.3		135.8		96.7	
13	5'N & 12'W of 4D	1791.3	6.9		134.5		95.7	
14	6'N & 20'W of 4D	1791.3	6.9		135.3		96.3	
15	8'S & 6'W of 3D	1791.3	7.1		136.8		97.4	

CME Associates, Inc.

Construction Materials Evaluation

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Landfill
CLIENT: Parsons
TEST METHOD: Nuclear Density Gauge
MATERIAL TYPE/SOURCE: Item 4 / Brain Bridge Pit
WEATHER: Cloud

DATE: October 25, 2002
REPORT NO.: 20013S-05-1002
REPRESENTATIVE: D. Scirri
TEMPERATURE: °F
PAGE: 1 of 1

REMARKS:

This representative was on site to conduct in-place field density testing on the above referenced project. Backfill around walls was being placed.

The tests show that the required percentage of compaction was achieved at the locations and elevation tested.

Ed Rudy of Parsons was informed of today's test results.

RESULTS: All elevations referenced from top of south wall 1792' – 9"

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	12'W of southeast corner.	1788-9	8.3	6.5	134.8	140.5	96.0	95.0
2	2'N x 1'W of 2D	1788-9	7.4	6.5	136.9	140.5	97.5	95.0
3	1'S x 10'W of 1D	1788-0	7.6	6.5	138.6	140.5	98.7	95.0
4	12'N x 2'W of 1D	1788-0	7.4	6.5	136.6	140.5	97.2	95.0
5	6'N x 12'W of 4D	1790-0	7.2	6.5	138.0	140.5	98.2	95.0
6	1'W x 1'S of 3D	1788-0	73	6.5	134.5	140.5	95.8	95.0
7	7'S x 2'W of 2D	1789-0	7.3	6.5	135.7	140.5	96.6	95.0
8	2'N x 12'W of D	1789-0	7.3	6.5	137.8	140.5	98.1	95.0
9	3'S x 2'W of 3D	1789-0	7.2	6.5	135.6	140.5	96.5	95.0
10	2'N x 10'W of 1D	1789-6	7.1	6.5	137.0	140.5	97.5	95.0
11	2'W x 9'S of 2D	1789-6	7.3	6.5	137.8	140.5	98.1	95.0
12	2'W x 5'S of 3D	1789-6	7.3	6.5	135.8	140.5	96.7	95.0
13	5'N x 12'W of 4D	1791.3	6.9	6.5	134.5	140.5	95.7	95.0
14	6'N x 20'W of 4D	1791.3	6.9	6.5	135.3	140.5	96.3	95.0
15	8'S x 6'W of 3D	1791.3	7.1	6.5	136.8	140.5	97.4	95.0

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.

Construction Materials Evaluation

LABORATORY TEST REPORT

JOB NAME: Richardson Hill Road Landfill
CLIENT NAME: Parson's
REPORT NO.: 20013S-04-1002
DATE: October 26, 2002

Our representative was on-site to sample soil material proposed for use at the above referenced project, and returned the sample to our laboratory for a Particle Size Analysis and Moisture-Density Relationship Determination. The results are as follows:

1) Material Identification:

Sample #	Date Sampled:	**Classification/Source:**
EL 295		Reddish-brown cmf GRAVEL and cmf SAND, trace SILT/ Item 4.

2) Mechanical Analysis (ASTM C136, D1140):

Sieve Size	**% Passing by Weight**	Specification % Passing by Weight
2"	100	100
1"	88.0	-
3/4"	81.1	-
1/2"	74.0	-
1/4"	59.6	30 – 65
#10	32.3	-
#40	13.1	5 – 40
#100	8.9	-
#200 (wash)	7.0	0 – 10

3) Moisture-Density Relationship (ASTM D1557): Sample #: EL 295

Corrected Maximum Dry Density (pcf) = **143.3**
Corrected Optimum Moisture Content (%) = **5.1**

The Moisture-Density Relationship Curve is attached. The sieve size used to separate the oversized particles was the 3/4". 18.9% of the sample was determined to be oversized for the purposes of this test.

4). Specific Gravity (ASTM C-127):

Sample #	Specific Gravity
EL 295	2.59

Please feel free to contact our office if you have any questions

Thomas Hamilton
CME Associates, Inc.

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.

MATERIALS TESTING DIVISION

FORM S-3

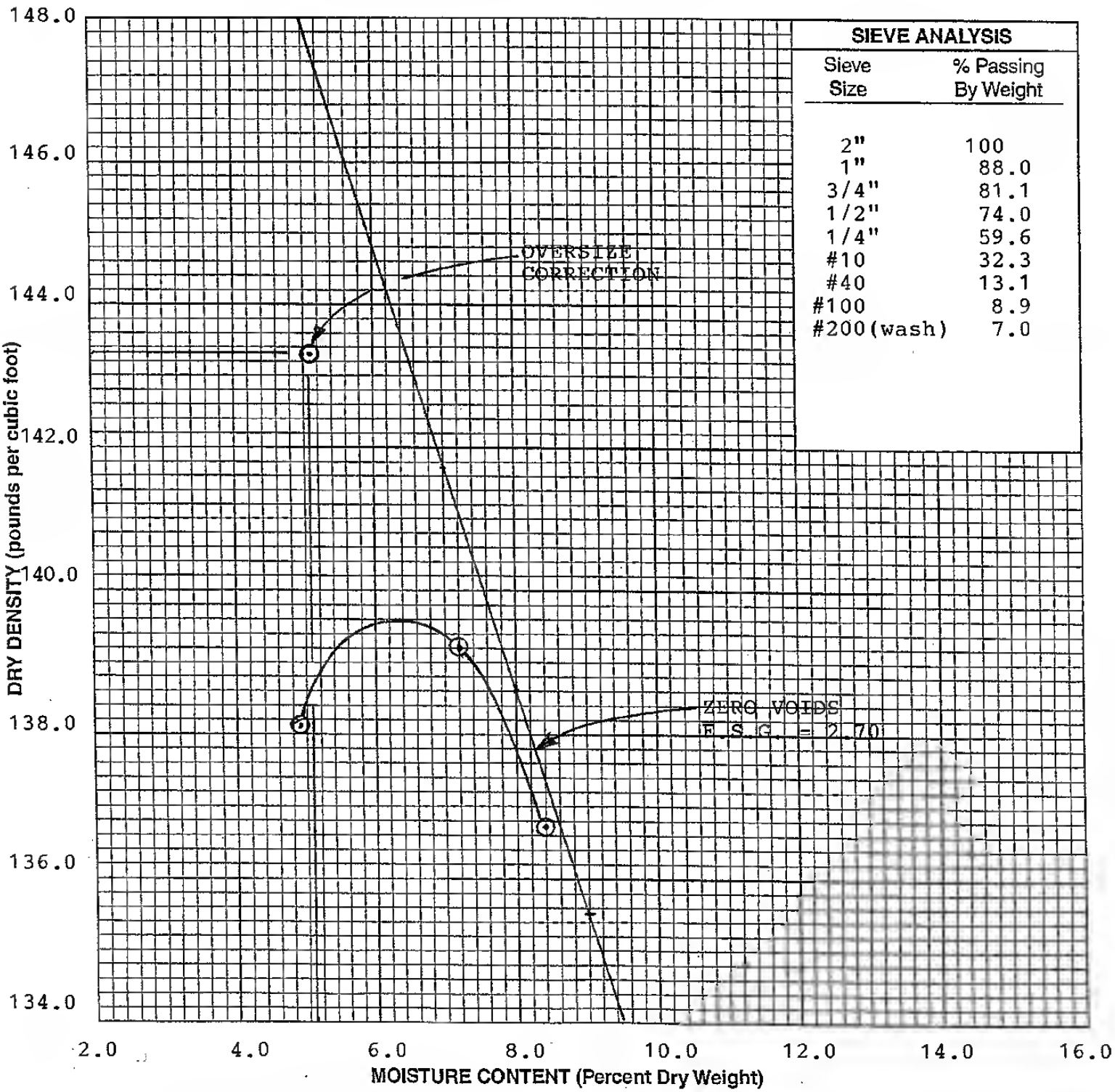
CLIENT: Parson's PROJECT: RHR Landfill

REPORT NO. ~~20013S 06 1002~~ SAMPLE NO. EL 295 DATE PICKED UP 10/11/02

SAMPLE LOCATION: Item 4.

SOIL CLASSIFICATION: Reddish-brown cmf GRAVEL and cmf SAND, trace SILT.

MOISTURE-DENSITY RELATIONSHIP CURVE



SIEVE ANALYSIS

Sieve Size	% Passing By Weight
2"	100
1"	88.0
3/4"	81.1
1/2"	74.0
1/4"	59.6
#10	32.3
#40	13.1
#100	8.9
#200(wash)	7.0

CORRECTED MAXIMUM DRY DENSITY 143.3 pcf **CORRECTED OPTIMUM MOISTURE CONTENT** 5.1 %

TESTED IN ACCORDANCE WITH ASTM D1557 ☒ ASTM D698 ☐ MIL-STD-621 ☐ CE

CME Associates, Inc.
Construction Materials Evaluation

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Landfill
DATE: November 6, 2002
CLIENT: Parsons
REPORT NO.: 20013S-06-1102
TEST METHOD: Nuclear Density Gauge
REPRESENTATIVE: T. Wheeler
MATERIAL TYPE/SOURCE: Red cmf SAND and cmf GRAVEL, trace of SILT / Bainbridge Pit.
WEATHER: Rainy
TEMPERATURE: °F
PAGE: 1 of 1

REMARKS:

This representative was on site to conduct in-place field density testing on the above referenced project. Material was placed with a track hoe and compacted with a plate temp.

The tests show that the required percentage of compaction was **not** achieved at the locations and elevation tested.

Test results were reported to Matt Millas.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	6'N of south wall, inside. 6'W of east wall, inside.		11.2	5.1	126.9	143.3	88.6	95.0
2	5'N of south wall, inside. 15'W of east wall building.		8.0	5.1	132.9	143.3	92.7	95.0

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.

MATERIALS TESTING DIVISION

FORM S-1.2 OF 2

IN-PLACE FIELD DENSITY TESTS

PROJECT Richardson Hill Landfill JOB NUMBER 20013 PAGE 1 OF 1

CLIENT Parsons DATE 11/6/02

TEST METHOD Nuclear TECHNICIAN Tom Wheeler

MATERIAL TYPE & SOURCE Red CMF sand CMF Gravel trace of silt / Bane Bridge Pit.

WEATHER Rainy

REMARKS: Rep was onsite to perform In-Place Field Density Test. The material was placed with a track hoe and compacted with a plate tamp. The test results show that the required percentage of compaction was not achieved at the location & Elevation of the test. Test results reported to Matt Millas.

RESULTS:

Test No.	Test Location	Test Elevation	Moist Cont. (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compact Achieved (%)	Compact Required (%)
1	5' N of S wall inside contain wall 6' W of E wall		11.2	5.1	126.9	143.3	88.6	95.0%
2	5' N of S Wall Inside 15' W of E Wall Bldg		8.0		132.9		92.7	
3								
4								
5								
6								
7								
8								

CME Associates, Inc.
Construction Materials Evaluation

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Landfill
CLIENT: Parsons
TEST METHOD: Nuclear Density Gauge
MATERIAL TYPE/SOURCE: Redish Brown cmf SAND and cmf GRAVEL, trace SILT
WEATHER: Sunny

DATE: November 8, 2002
REPORT NO.: 20013S-07-1102
REPRESENTATIVE: T. Wheeler
TEMPERATURE: °F
PAGE: 1 of 1

REMARKS:

This representative was on site to conduct in-place field density testing on the above referenced project. Material was placed with a track hoe and compacted with a jumpin jack and a roller by Gary Dyer.

The test results show that one retest passed at the required percentage of compaction. Test results were reported to Ed Rudy.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	6'N of south wall, inside. 6'W of east wall, inside.	4' 0"	9.7	5.1	130.4	143.3	91.0	95.0
2	5'N of south wall, inside. 15'W of east wall building.	3' 4"	8.5	6.5	134.5	143.3	95.7	95.0

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.

Construction Materials Evaluation

LABORATORY TEST REPORT

JOB NAME: Richardson Hill Road Landfill
CLIENT NAME: Parson's
REPORT NO.: 20013S-08-1102
DATE: November 12, 2002

Our representative was on-site 11/8/02 to sample soil material proposed for use at the above referenced project, and returned the sample to our laboratory for a Particle Size Analysis and Moisture-Density Relationship Determination. The results are as follows:

1) Material Identification:

Sample #	Date Sampled:
EL 311	11/08/02

Classification/Source:
Reddish Brown cmf SAND and cmf GRAVEL, trace SILT/ Item 4.

2) Mechanical Analysis (ASTM C136, D1140):

Sieve Size	% Passing by Weight	Specification % Passing by Weight
2"	100	100
1"	92.8	
3/4"	86.7	
1/2"	75.9	
1/4"	64.0	30 – 65
#10	38.7	
#40	12.4	5 – 40
#100	7.5	
#200 (wash)	5.6	0 – 10

3) Moisture-Density Relationship (ASTM D1557): Sample #: EL 311

Corrected Maximum Dry Density (pcf) = **141.8**
Corrected Optimum Moisture Content (%) = **6.2**

The Moisture-Density Relationship Curve is attached. The sieve size used to separate the oversized particles was the 3/4". 13.3 % of the sample was determined to be oversized for the purposes of this test.

4). Specific Gravity (ASTM C-127):

Sample #	Specific Gravity
EL 311	2.56

Please feel free to contact our office if you have any questions

Thomas Hamilton
CME Associates, Inc.

701A Chemung Street Horseheads, NY 14845 (607) 739-4033 FAX (607) 739-4085

CME Associates, Inc.

MATERIALS TESTING DIVISION

FORM S-3

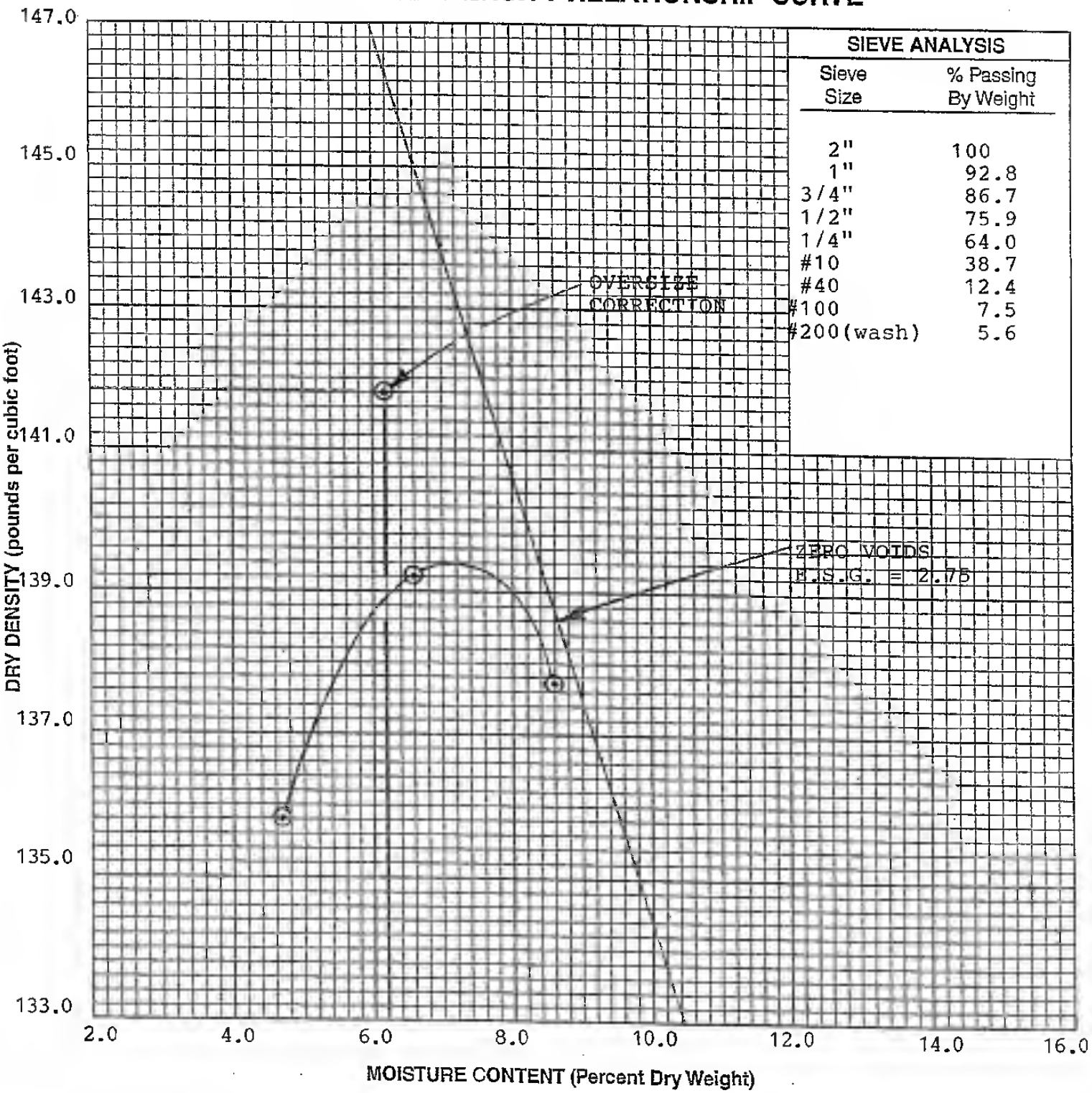
CLIENT: Parson's PROJECT: RHRL

REPORT NO. 20013S-08-1102 SAMPLE NO. EL 311 DATE PICKED UP 11/8/20

SAMPLE LOCATION:

SOIL CLASSIFICATION: Reddish Brown cmf SAND and cmf GRAVEL, trace SILT/Item 4.

MOISTURE-DENSITY RELATIONSHIP CURVE



SIEVE ANALYSIS	
Sieve Size	% Passing By Weight
2"	100
1"	92.8
3/4"	86.7
1/2"	75.9
1/4"	64.0
#10	38.7
#40	12.4
#100	7.5
#200(wash)	5.6

CORRECTED MAXIMUM DRY DENSITY 141.8 pcf CORRECTED OPTIMUM MOISTURE CONTENT 6.2 %

TESTED IN ACCORDANCE WITH ASTM D1557 ☒ ASTM D698 ☐ MIL STD 621 ☐ OT

CME Associates, Inc.
Construction Materials Evaluation

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Landfill
CLIENT: Parsons
TEST METHOD: Nuclear Density Gauge
MATERIAL TYPE/SOURCE: Redish Brown cmf SAND and cmf GRAVEL, trace SILT
WEATHER: Sunny

DATE: November 14, 2002
REPORT NO.: 20013S-09-1102
REPRESENTATIVE: J. Brotzman
TEMPERATURE: 60 °F
PAGE: 1 of 1

REMARKS:

This representative was on site to conduct in-place field density testing on fill material being placed and compacted at the above referenced project.

Matt Millias of Parsons approved placement of fill material being placed over lifts that did **Not** achieve required compaction.

Test results were reported to Matt Millias of Parsons.

RESULTS: Test elevation referenced from finished floor = 1792.0

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	A.3 x 1.3	1789.0	7.2	6.1	134.5	143.9	**93.5**	95.0
2	Center of exterior cell	1789.0	6.7	6.1	136.7	143.9	95.0	95.0
3	**A** .3 x 1.3	1789.5	7.4	6.1	136.9	143.9	95.2	95.0
4	**A** .1 x 2.5	1788.5	10.5	6.1	129.5	143.9	**90.0**	95.0
5	A .3 x 1.3	1791.5	7.8	6.1	134.5	143.9	**93.5**	95.0
6	**A** .1 x 2.5	1789.0	6.9	6.1	138.1	143.9	96.0	95.0
7	Center of exterior cell	1789.5	8.8	6.1	129.8	143.9	**90.2**	95.0

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.

Construction Materials Evaluation

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Landfill
CLIENT: Parsons
TEST METHOD: Nuclear Density Gauge
MATERIAL TYPE/SOURCE: Item 4 / Bainbridge Pit
WEATHER: Sunny

DATE: November 15, 2002
REPORT NO.: 20013S-10-1102
REPRESENTATIVE: D. Scirri

TEMPERATURE: °F
PAGE: 1 of 1

REMARKS:

This representative was on site to conduct in-place field density testing on the above referenced project.

The test results show that the required percentage of compaction was achieved at the test location and elevation of the test.

Test results were reported to Matt Millias of Parsons.

RESULTS: Test Elevation referenced from Finish Floor 1792.0

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	8'N x 8'W of A.1	1789.0	6.8	6.5	137.1	140.5	97.5	95.0
2	10'N x 15'W of B.9	1789.6	7.2	6.5	135.4	140.5	96.3	95.0
3	15'N x 10'W of A.1	1789.6	7.7	6.5	134.0	140.5	95.4	95.0
4	15'N x 10'W of B.9	1790.0	6.1	6.5	136.5	140.5	97.2	95.0
5	15'N x 10'E of B.9	1790.0	7.6	6.5	137.9	140.5	98.1	95.0
6	10'N x 5'W of A.1	1790.0	6.0	6.5	134.1	140.5	95.4	95.0
7	10'N x 10'E of B.9	1791.0	6.6	6.5	138.3	140.5	98.4	95.0
8	5'N x 8'E of A.2	1789.0	8.0	6.5	134.0	140.5	95.4	95.0
9	15'N x 10'E of A.2	1790.0	6.6	6.5	136.1	140.5	96.8	95.0
10	15'N x 8'W of A.1	1790.6	6.4	6.5	134.0	140.5	95.3	95.0
11	16'N x 15'E of A.2	1791.0	7.0	6.5	136.2	140.5	96.9	95.0
12	10'N x 10'W of A.1	1791.0	6.6	6.5	133.7	140.5	95.1	95.0

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.

Construction Materials Evaluation

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Landfill
DATE: November 25, 2002
CLIENT: Parsons
REPORT NO.: 20013S-12-1102
TEST METHOD: Nuclear Density Gauge
REPRESENTATIVE: T. Wheeler
MATERIAL TYPE/SOURCE: Redish brown cmf SAND and cmf GRAVEL, trace SILT
WEATHER: Cloudy
TEMPERATURE: °F
PAGE: 1 of 1

REMARKS:

This representative was on site to conduct in-place field density tests. The material was placed with a track hoe and compacted with a roller by Gary Dyer.

The test results show that the required percentage of compaction was **NOT** achieved at the test location and elevation of the test. The moisture was to high on the second test.

Test results were reported to Rudy of Parsons.

RESULTS: Test Elevation referenced from Finish Floor 1792.0

Test #	Test Location	Test Elevatioo	Moisture Cootent (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compactioo Achieved (%)	Compaction Required (%)
1	25'N of south wall, 35'E of west wall, inside.	1790.0	8.2	6.5	135.0	140.5	96.1	95.0
2	20'N of south wall, 15'E of west wall, inside.	1790	10.3	6.5	128.7	140.5	91.6	95.0

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.

MATERIALS TESTING DIVISION

FORM S-1.2 OF 2

IN-PLACE FIELD DENSITY TESTS

PROJECT RHL JOB NUMBER 20013 PAGE 1 OF 1

CLIENT Parsons DATE 11/25/02

TEST METHOD Nuclear TECHNICIAN Tom Wheeler

MATERIAL TYPE & SOURCE Redish brown c m F sand c m F gravel trace of silt/

WEATHER Cloudy

REMARKS: Rep was on site to perform In-Place Field Density Tests. The material was placed with a track hoe and compacted with a roller by Gary Dyer. The test results show that the required percentage of compaction was at the one location and elevation of the test. the moisture was to high on the second test. The test results were reported to Ed Rudy of Parsons.

RESULTS:

Test No.	Test Location	Test Elevation	Moist Cont. (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compact Achieved (%)	Compact Required (%)
1	25' N of S Wall 35' E of W Wall inside	2' 1.5" Below F Floor	8.2	6.58	135.0	140.5	96.1	95.0%
2	20' 15' " " " " " "	"	10.3	"	128.7	"	91.6	"
3								
4								

CME Associates, Inc.
Construction Materials Evaluation

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Landfill
CLIENT: Parsons
TEST METHOD: Nuclear Density Gauge
MATERIAL TYPE/SOURCE: Redish brown cmf SAND and cmf GRAVEL, trace SILT
WEATHER: Cloudy

DATE: November 26, 2002
REPORT NO.: 20013S-13-1102
REPRESENTATIVE: T. Wheeler
TEMPERATURE: °F
PAGE: 1 of 1

REMARKS:

This representative was on site to conduct in-place field density tests. The material was placed with a track hoe and compacted with a roller.

The test results show that the required percentage of compaction was achieved at the test location and elevation of the test.

Test number one was a retest from Monday, November 25, 2002.

Test results were reported to Ed Rudy of Parsons.

RESULTS: Test Elevation referenced from Finish Floor 1792.0

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	20'N of south wall, 35'E of west wall, inside.	1790.0	6.7	6.5	133.9	140.5	95.3	95.0
2	5'S of north wall, 15'E of west wall, inside.	1790.5	7.5	6.5	135.8	140.5	96.6	95.0

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.

MATERIALS TESTING DIVISION

FORM S-1.2 OF 2

IN-PLACE FIELD DENSITY TESTS

PROJECT RHL JOB NUMBER 20013 PAGE 1 OF 1

CLIENT Parsons DATE 11/26/02

TEST METHOD Nuclear TECHNICIAN Tom Wheeler

MATERIAL TYPE & SOURCE Redish Brown, cmF sand and cmF gravel trace of silt

WEATHER Cloudy

REMARKS: Rep was on site to peform In-Place Field Density Test. The material was placed with a back hoe and compacted with a roller. The test results show that the the required percentage of compaction was achived at the location and elevation of the test.

Test #1 was a retest from mon the 25 of Nov. The test results were reported to Ed of Parsons.

RESULTS:

Test No.	Test Location	Test Elevation	Moist Cont. (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compact Achieved (%)	Compact Required (%)
Retest 1	20' N of S wall 35' E of W wall inside	2'2" Below F Floor.	6.7	6.5	133.9	140.5	95.3	95.0%
2	5' S of N Wall 15' E of W Wall "	1½' "	7.5		135.8		96.6	
3								
4								
5								
6								

CME Associates, Inc.

Construction Materials Evaluation

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Landfill
DATE: December 11, 2002
CLIENT: Parsons
REPORT NO.: 20013S-14-1102
TEST METHOD: Nuclear Density Gauge
REPRESENTATIVE: T. Wheeler
MATERIAL TYPE/SOURCE: Redish brown cmf SAND and cmf GRAVEL, trace SILT
WEATHER: Cloudy
TEMPERATURE: °F
PAGE: 1 of 1

REMARKS:

This representative was on site to conduct in-place field density tests. The material was placed with a track hoe and compacted with a roller by Gary Dyer.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Test results were reported to Ed Rudy of Parsons.

RESULTS: Test Elevation = Below Final Grade

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Tank Pad, Outside Building. 50'N x 50'W of northeast corner.	10"	7.1	6.5	136.9	140.5	97.5	95.0

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.

MATERIALS TESTING DIVISION

FORM S-1.2 OF 2

IN-PLACE FIELD DENSITY TESTS

PROJECT RHL JOB NUMBER 2013 PAGE 1 OF 1

CLIENT Parsons DATE 12/11/02

TEST METHOD Nuclear TECHNICIAN Tom Wheeler

MATERIAL TYPE & SOURCE Redish Brown CMF sand CMF Gravel trace of silt.

WEATHER Cloudy

REMARKS: Rep. was onsite to Perform On-Place Field Density Test. The material was placed with a track hoe and compacted with a vertical roller by Gary Dyer. The test result show that the required percentage of compaction was achived at the location and elevation of the test. The test results were reported to Ed Rudy of Parsons

RESULTS:

Test No.	Test Location	Test Elevation	Moist Cont. (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compact Achieved (%)	Compact Required (%)
1	Tank pad 50N of Bldg 50'NE corner outside	10" Below F Grade	7.1	6.5	136.9	140.5	97.5	95.0%

CME Associates, Inc.

Construction Materials Evaluation

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Landfill
DATE: December 16, 2002
CLIENT: Parsons
REPORT NO.: 20013S-15-1102
TEST METHOD: Nuclear Density Gauge
REPRESENTATIVE: J. Brotzman
MATERIAL TYPE/SOURCE: Redish brown cmf SAND and cmf GRAVEL, trace SILT
WEATHER: Snow
TEMPERATURE: 30 °F
PAGE: 1 of 1

REMARKS:

This representative was on site to conduct in-place field density testing on fill material being placed and compacted at the above referenced project.

The test results show that the required percentage of compaction was **NOT** achieved at the location and elevation of the test.

Test results were reported to Ed Rudy of Parsons.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	A.2 x 4.8	1792.0	8.5	6.5	130.0	140.5	92.6	95.0
2	2.5 x A.6	1791.0	6.5	6.5	133.6	140.5	95.1	95.0
3	A.7 x 4.8	1792.0	7.5	6.5	126.6	140.5	90.1	95.0

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.

MATERIALS TESTING DIVISION

FORM S-1.2 OF 2

IN-PLACE FIELD DENSITY TESTS

PROJECT Richard Hill Land. JOB NUMBER 20013 PAGE 1 OF 1

CLIENT Parsons DATE 12-16-02

TEST METHOD Duke TECHNICIAN J. Brotzman

MATERIAL TYPE & SOURCE Reddish Brn. cmf SAND, and cmf GRAVEL, trace SILT/

WEATHER Snow 30°

REMARKS: This rep. was on site to conduct in place field density testing on fill mat'l. being placed and compacted at the above ref. project.

The tests show that the req.' percentage of compaction was NOT achieved at all locations tested.

Ed Rudy with Parsons was informed of todays test results.

RESULTS:

Test No.	Test Location	Test Elevation	Moist Cont. (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compact Achieved (%)	Compact Required (%)	
1	A.2 x 4.8	1792.0'	8.5	6.5	130.0	140.5	92.6	95%	F
2	2.5 x A.6	1791.0'	6.5		133.6		95.1		
3	A.7 x 4.8	1792.0'	7.5		126.6		90.1		F

CME Associates, Inc.

Construction Materials Evaluation

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Landfill
DATE: December 26, 2002
CLIENT: Parsons
REPORT NO.: 20013S-16-1202
TEST METHOD: Nuclear Density Gauge
REPRESENTATIVE: T. Wheeler
MATERIAL TYPE/SOURCE: Redish brown cmf SAND and cmf GRAVEL, trace SILT
WEATHER: Cloudy
TEMPERATURE: 30 °F
PAGE: 1 of 1

REMARKS:

This representative was on site to conduct in-place field density tests. Backfill material was placed inside the building with a backhoe and compacted with a roller by Gary Dyer.

The test results show that five out of twelve tests meet the required percentage of compaction. Seven tests did **NOT** meet the required percentage of compaction.

Test results were reported to Ed Rudy of Parsons.

RESULTS:

Test #	Test Locatioo	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Column Line D-2	1791	5.0	6.5	128.9	140.5	**91.8**	95.0
2	Column Line B.9-2	1791	5.2	6.5	135.8	140.5	96.7	95.0
3	Column Line B.9-2.5 sump well.	1791	5.2	6.5	119.3	140.5	**84.9**	95.0
4	B.2 - 1.5 Ramp	1792	5.6	6.5	139.1	140.5	99.0	95.0
5	A.6 - 1.5 Ramp	1792	7.4	6.5	130.1	140.5	**92.6**	95.0
6	B - 2.5	1791	6.9	6.5	132.2	140.5	**94.1**	95.0
7	B.9 - 3.5	1791	7.0	6.5	138.8	140.5	98.8	95.0
8	C.5 - 3.5	1791	6.4	6.5	130.2	140.5	**92.6**	95.0
9	B.9 - 4.5	1791	8.0	6.5	129.3	140.5	**92.0**	95.0
10	A.5 - 4.5	1792	7.6	6.5	136.1	140.5	96.9	95.0
11	A.6 - 2.5	1790	6.3	6.5	135.2	140.5	96.2	95.0
12	B.9 - 2.5	1791	6.1	6.5	119.3	140.5	**84.9**	95.0

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.

MATERIALS TESTING DIVISION

FORM S-1.2 OF 2

IN-PLACE FIELD DENSITY TESTS

PROJECT RHL JOB NUMBER 20013 PAGE 1 OF 1

CLIENT Parsons DATE 12/26/02

TEST METHOD Nuclear TECHNICIAN Thomas & Wheeler

MATERIAL TYPE & SOURCE Redish Brown CMF sand & CMF Gravel some silt

WEATHER Cloudy

REMARKS: Rep was on site to perform dly-Place Field Density Test. The material was placed with a back hoe and compacted with a roller by Gary Dyer. The test results show that five out of 12 test past. With the required percentage of Compaction.

The ~~the~~ test results were reported to Ed Rudy of Parsons.

RESULTS:

Test No.	Test Location	Test Elevation	Moist Cont. (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compact Achieved (%)	Compact Required (%)
1	Column Line B D-2	~~1782~~ 1791	5.0	6.5	128.9	140.5	91.8	95.0%
2	" " " B-9	"	5.2		135.8		96.7	
3	" Sump well " B-9-2.5	"	5.2		119.3		84.9	
4	~~A-6~~ B-2 / 1.5 Ramp	1792	5.6		139.1		99.0	
5	A.6 / 1.5 Ramp	1792	7.4		130.1		92.6	
6	B / 2.5	1791	6.9		132.2		94.1	
7	B.9 / 3.5	1791	7.0		138.8		98.8	
8	~~B-9 / 3.5~~ C.5 / 3.5	1791	6.4		130.2		92.6	
9	B.9 / 4.5	1791	8.0,		129.3		92.0	
10	A.5 / 4.5	1792.	7.6		136.1		96.9	
11	A.6 / 2.5	1790	6.3		135.2		96.2	
12	B.9 / 2.5	1791	6.1		119.3		84.9	

CME Associates, Inc.

Construction Materials Evaluation

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Landfill
DATE: December 27, 2002
CLIENT: Parsons
REPORT NO.: 20013S-17-1202
TEST METHOD: Nuclear Density Gauge
REPRESENTATIVE: T. Wheeler
MATERIAL TYPE/SOURCE: Redish brown cmf SAND and cmf GRAVEL, trace SILT
WEATHER: Cloudy
TEMPERATURE: 30 °F
PAGE: 1 of 1

REMARKS:

This representative was on site to conduct in-place field density tests and retests from December 26, 2002. Test number 7 was a new area tested on this date.

The test results show that the required percentage of compaction was achieved at the location and elevation of the test.

Test results were reported to Ed Rudy of Parsons.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Retest #5	1792	7.5	6.5	133.6	140.5	95.1	95.0
2	Retest #2	1791	4.7	6.5	135.9	140.5	96.8	95.0
3	Retest #6	1791	6.9	6.5	135.6	140.5	96.5	95.0
4	Retest #8	1791	5.6	6.5	136.5	140.5	97.2	95.0
5	Retest #9	1791	7.2	6.5	138.0	140.5	98.2	95.0
6	Retest #3	1791	6.9	6.5	134.0	140.5	95.4	95.0
7	A.6 Column 3	1792	8.1	6.5	136.1	140.5	96.9	95.0

Note all Retests from December 26, 2002.

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.

MATERIALS TESTING DIVISION

FORM S-1.2 OF 2

IN-PLACE FIELD DENSITY TESTS

PROJECT RHL JOB NUMBER 2013 PAGE 1 OF 1

CLIENT Parsons DATE 12/27/02

TEST METHOD Nuclear TECHNICIAN Tom Wheeler

MATERIAL TYPE & SOURCE Redis Brown CMF sand CMF Gravel Trace of silt

WEATHER Cloudy.

REMARKS: Rep was onsite to perform retest on elv-Place Field Density Test on numbers 1-6 from 12/26/02. #'s listed next to Test. Test number 7 was a new test for 12/27/02. The test results show that the required percentage of compaction was achieved at the location and elevation of the test. The test results were reported to Ed Rudy of Parsons.

RESULTS:

ReTest on	Test No.	Test Location	Test Elevation	Moist Cont. (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compact Achieved (%)	Compact Required (%)
#5	1	A.6/1.5 Ramp	1792	7.5	6.5%	133.6	140.5	95.1	95.0%
#2	2	Column Line D.2	1791	4.7		135.9		96.8	
#6	3	B/2.5	1791	6.9		135.6		96.5	
#8	4	C.5/3.5	1791	5.6		136.5		97.2	
#9	5	B.9/4.5	1791	7.2		138.0		98.2	
#3	6	B.9/2.5	1791	6.9		134		95.4	
New Test.	7	A.6 Column 3	1792.	8.1		136.1		96.9	

CME Associates, Inc.

Construction Materials Evaluation

IN-PLACE FIELD DENSITY TEST REPORT

PROJECT: Richardson Hill Landfill
DATE: January 9, 2003
CLIENT: Parsons
REPORT NO.: 20013S-18-0103
TEST METHOD: Nuclear Density Gauge
REPRESENTATIVE: T. Wheeler
MATERIAL TYPE/SOURCE: Redish brown cmf SAND and cmf GRAVEL, trace SILT
WEATHER: Snowy
TEMPERATURE: 30 °F
PAGE: 1 of 1

REMARKS:

This representative was on site to conduct in-place field density testing on slab base material. The material was placed with a backhoe and compacted with a roller by Gary Dyer.

The test results show that the required percentage of compaction was **NOT** achieved at the location and elevation of the test.

Mat Millis of Parsons accepted the compaction achieved.

Note: this test was a retest from December 26, 2002.

RESULTS:

Test #	Test Location	Test Elevation	Moisture Content (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compaction Achieved (%)	Compaction Required (%)
1	Column Line D-2	1791	5.7	6.5	132.6	140.5	94.4	95.0

Note all Retest except 7

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.

MATERIALS TESTING DIVISION

FORM S-1.2 OF 2

IN-PLACE FIELD DENSITY TESTS

PROJECT RHL JOB NUMBER 20013 PAGE 1 OF 1

CLIENT Parsons DATE 1/9/03

TEST METHOD Nuclear TECHNICIAN Tom Wheeler

MATERIAL TYPE & SOURCE Redish Brown CMF sand CmF Gravel, Trace of silt

WEATHER Snowy.

REMARKS: Rep was onsite to perform In-Place Field Density Test. The material was placed with a back hoe and compacted with a roller by Gary Dyer. The test results show that the required percentage of compaction was not achieved at the location and elevation of the test. Please note that Mat Millis of Parsons excepted the achieved compaction. Note the test ran today was a retest from Dec. 26th 2002.

RESULTS:

Test No.	Test Location	Test Elevation	Moist Cont. (%)	OMC (%)	Field Dry Density (pcf)	100% Dry Density (pcf)	Compact Achieved (%)	Compact Required (%)
1	Column Line-D-2	1791	5.7	6.5%	132.6	140.5	94.4	95.0%

F-20

BIO-POLYMER SLURRY BREAKING PROCEDURE

AMPHENOL CORPORATION

Richardson Hill Road Landfill
Construction of Earthwork Activities
Contract No.

Shaw Environmental
Project # 843536

LETTER OF TRANSMITTAL

Transmittal No.: 156

Date Submitted: 3/1/05

Section No.: 02250

Resubmittal:

Description: – Extraction trench bio slurry breaking/flushing procedure.

Deviations: _____

3/1/05
Submitted by/date

Status: (circle one) 1. Approved as Submittal 2. Approved as Noted
3. Returned for Corrections 4. Resubmit (not Approved)

Comments:

_____

_____

_____
Signed by/date

On August 31st and September 1st 18 gallons of liquid enzyme breaker (LEB-4) was introduced into the extraction trench via the exposed backfill stone and sumps 1, 2, and 3. The slurry and beaker was circulated with a 2 inch pump from the sump locations to the top of the extraction trench for approximately 10 hours. The pump discharge hose was periodically moved along the trench length to mix the slurry and breaker.

A total of 6 Marsh funnel viscosity tests were performed using the broken slurry. A summary of the results is shown below.

Date	Time	Location	Viscosity
8/31/04	13:55	Sump 3	27 seconds
9/01/04	11:00	Sump 3	26 seconds
9/01/04	11:45	Sump 1	27 seconds
9/01/04	13:00	Sump 1	26 seconds
9/01/04	14:35	Sump 2	26 seconds
9/01/04	15:15	Sump 2	26 seconds

During the slurry circulation activities, a weighted tape measure was used to verify the bottom of each sump was free of solids that may have colleted there during the extraction trench construction.

Note: 26 seconds +/- 1 second indicates slurry has completely broken down.

F-21

NON-WOVEN GEOTEXTILE PROPERTIES

AMPHENOL CORPORATION

Richardson Hill Road Landfill
Construction of Earthwork Activities
Contract No. 555009

Shaw Environmental
Project # 843536

LETTER OF TRANSMITTAL

Transmittal No.: 30 Date Submitted: 03/31/03

Section No.: 02421 Resubmittal: Yes / No

Description: 1.03.A.4 – Certified Test Results per Table 02421-1
(Please, Refer To Attached Geotextile Product Description Sheet)

Deviations: NONE

Submitted by/date

Status: (circle one) 1. Approved as Submittal 2. Approved as Noted
3. Returned for Corrections 4. Resubmit (not Approved)

Comments:

Signed by/date

TNS Advanced Technologies
A Nevoven Company

Geotextile Product Description Sheet

Style TNS E080

TNS E080 is a superior quality, nonwoven geotextile produced by needlepunching together 100% polypropylene staple fibers in a random network to form a high strength dimensionally stable fabric. The polypropylene fibers are specially formulated to resist ultraviolet light deterioration, and are inert to commonly encountered soil chemicals. The fabric will not rot or mildew, is non-biodegradable, and is resistant to damage from insects and rodents. Polypropylene is stable within a ph range of 2 to 13. TNS E080 conforms to the physical property values listed below:

Fabric Property	Test Method	Units	Minimum Average Roll Value
Weight	ASTM D 5261	oz/sq yd	8.0 (272 g/sm)
Thickness*	ASTM D 5199	mils	100 (2.5 mm)
Grab Tensile	ASTM D 4632	lbs	225 (1.0 kN)
Grab Elongation	ASTM D 4632	%	50
Trap Tear	ASTM D 4533	lbs	90 (.40 kN)
Puncture	ASTM D 4833	lbs	130 (.578 kN)
Permittivity*	ASTM D 4491	1/sec	1.26
AOS	ASTM D 4751	U.S. Sieve	70 (.212 mm)
Permeability*	ASTM D 4491	cm/sec	.30
Mullen Burst	ASTM D 3786	psi	450 (3101 kPa)
Water Flow*	ASTM D 4491	gpm/sqft	100 (4074 l/min/sm)
UV Resistance after 500 hrs.	ASTM D 4355	% Strength Retained	70

Packaging	
Roll Dimensions Feet	15 x 690
Square Yards Per Roll	1150
Estimated Roll Weight Lbs.	830

* At time of manufacturing, handling may change these properties.

To the best of our knowledge, the information contained herein is accurate. However, TNS Advanced Technologies cannot anticipate all conditions under which TNS product information and our products, or the products of other manufacturers in combination with our products, may be used. We accept no responsibility for results obtained by the application of this information or the safety or suitability of our products either alone or in combination with other products. Final determination of the suitability of any information or materials for the use contemplated, of its manner of use, and whether the suggested use infringes any patents is the sole responsibility of the user.

F-22

EXTRACTION TRENCH PIPING PRESSURE TEST RESULTS

PRESSURE TEST REPORT

Project:	RHRL Landfill Closure	**Test No.:**	01
Client:	Honeywell	**Test Date:**	8/31/04
Prime Contractor:	Shaw Environmental		
Subcontractor:	NA		

Reference Drawings:	C-101, C-102, C-103, 1-103
System:	Acid Feed
Line Description:	4-Inch HDPE Secondary Containment Carrier Pipe
From:	Pull box PB4A
To:	Pull box PB5A

Test Method:	Pressure	**Test Medium:**	Air
Test Pressure:	5 psi	**Test Gauge:**	0-100 psi
Starting Pressure:	10 psi	**Ending Pressure:**	10 psi

Start Test: 1600 Hours **End Test:** 1630 Hours **Holding Time:** 30 Minutes

Leaks Detected: No **Retest Required:** No

Remarks: Carrier pipe is open ended non-pressurized secondary containment.
Established test pressure based on 10-feet of static head.
There was no loss in pressure.

Witnessed By:		**Witnessed By:**	
Name:	Norm Sulock	**Name:**	Dave Dorris
Organization:	Parsons	**Organization:**	Shaw Environmental
Signature:		**Signature:**	for Dave Dorris
Date:	8/31/04	**Date:**	8/31/04

PRESSURE TEST REPORT

Project:	RHRL Landfill Closure	**Test No.:**	02
Client:	Honeywell	**Test Date:**	9/7/04
Prime Contractor:	Shaw Environmental		
Subcontractor:	NA		

Reference Drawings:	C-101, C-102, C-103, I-103
System:	Acid Feed
Line Description:	4-Inch HDPE Secondary Containment Carrier Pipe
From:	Pull box PB5A
To:	Pull box PB6A

Test Method:	Pressure	**Test Medium:**	Air
Test Pressure:	5 psi	**Test Gauge:**	0-100 psi
Starting Pressure:	15 psi	**Ending Pressure:**	15 psi

Start Test: 1520 Hours **End Test:** 1550 Hours **Holding Time:** 30 Minutes

Leaks Detected: No **Retest Required:** No

Remarks: Carrier pipe is open ended non-pressurized secondary containment.
Established test pressure based on 10-feet of static head.
There was no loss in pressure.

Witnessed By:		**Witnessed By:**	
Name:	Norm Sulock	**Name:**	Dave Dorris
Organization:	Parsons	**Organization:**	Shaw Environmental
Signature:		**Signature:**	
Date:	9/7/04	**Date:**	9/7/04

PRESSURE TEST REPORT

Project:	RHRL Landfill Closure	**Test No.:**	03
Client:	Honeywell	**Test Date:**	9/7/04
Prime Contractor:	Shaw Environmental		
Subcontractor:	NA		

Reference Drawings:	C-101, C-102, C-103, I-103
System:	Acid Feed
Line Description:	4-Inch HDPE Secondary Containment Carrier Pipe
From:	Pull box PB6A
To:	Collection Sumps S1 and S2

Test Method:	Pressure	**Test Medium:**	Air
Test Pressure:	5 psi	**Test Gauge:**	0-100 psi
Starting Pressure:	10 psi	**Ending Pressure:**	10 psi

Start Test: 1700 Hours **End Test:** 1730 Hours **Holdiog Time:** 30 Minutes

Leaks Detected: No **Retest Required:** No

Remarks: Carrier pipe is open ended non-pressurized secondary containment.
Established test pressure based on 10-feet of static head.
Continuous prefabricated pipe run servicing collection sumps S1 and S2
There was no loss in pressure.

Witnessed By:		**Witnessed By:**	
Name:	Norm Sulock	**Name:**	Dave Dorris
Organization:	Parsons	**Organization:**	Shaw Environmental
Signature:		**Signature:**	Jeffrey J Boyer for Dave Dorris
Date:	9/7/04	**Date:**	9/7/04

PRESSURE TEST REPORT

Project:	RHRL Landfill Closure	**Test No.:**	04
Client:	Honeywell	**Test Date:**	9/10/04
Prime Contractor:	Shaw Environmental		
Subcontractor:	NA		

Reference Drawings:	C-101, C-102, C-103, I-103
System:	Groundwater Collection
Line Description:	3-Inch HDPE Conveyance Pipe
From:	Partial run located between PB6 and collection sump S-1
To:	First butterfly valve on equalization tank T-1

Test Method:	Pressure	**Test Medium:**	Air
Test Pressure:	80 psi	**Test Gauge:**	0-100 psi
Starting Pressure:	80 psi	**Ending Pressure:**	80 psi

Start Test: 1215 **End Test:** 1245 **Holding Time:** 30 Minutes

Leaks Detected: No **Retest Required:** No

Remarks: This was a partial line test.

	Witnessed By:		**Witnessed By:**
Name:	Norm Sulock	**Name:**	Steve Liatti
Organization:	Parsons	**Organization:**	Shaw Environmental
Signature:		**Signature:**	
Date:	9/10/04	**Date:**	9/10/04

PRESSURE TEST REPORT

Project:	RHRL Landfill Closure	**Test No.:**	05
Client:	Honeywell	**Test Date:**	9/15/04
Prime Contractor:	Shaw Environmental		
Subcontractor:	NA		

Reference Drawings:	C-101, C-102, C-103, I-103
System:	Groundwater Collection
Line Description:	3-Inch HDPE Conveyance Pipe
From:	Partial run located between collection sumps S-1and S-2
To:	First butterfly valve on equalization tank T-1

Test Method:	Pressure	**Test Medium:**	Air
Test Pressure:	80 psi	**Test Gauge:**	0-100 psi
Starting Pressure:	80 psi	**Ending Pressure:**	80 psi

Start Test: 1245 **End Test:** 1215 **Holding Time:** 30 Minutes

Leaks Detected: No **Retest Required:** No

Remarks: This was a partial line test.

	Witnessed By:		**Witnessed By:**
Name:	Norm Sulock	**Name:**	Steve Liatti
Organization:	Parsons	**Organization:**	Shaw Environmental
Signature:		**Signature:**	
Date:	9/15/04	**Date:**	9/15/04

PRESSURE TEST REPORT

Project:	RHRL Landfill Closure	**Test No.:**	06
Client:	Honeywell	**Test Date:**	9/16/04
Prime Contractor:	Shaw Environmental		
Subcontractor:	NA		

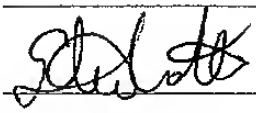
Reference Drawings:	C-101, C-102, C-103, I-103
System:	Acid Feed
Line Description:	2-Inch HDPE Secondary Containment Carrier Pipe
From:	Collection Sump S2
To:	Collection Sump S3

Test Method:	Pressure	**Test Medium:**	Air
Test Pressure:	5 psi	**Test Gauge:**	0-100 psi
Starting Pressure:	8 psi	**Ending Pressure:**	8 psi

Start Test: 1600 Hours **End Test:** 1630 Hours **Holding Time:** 30 Minutes

Leaks Detected: No **Retest Required:** No

Remarks: Carrier pipe is open ended non-pressurized secondary containment.
Established test pressure based on 10-feet of static head.
Continuous prefabricated pipe run servicing collection sumps S2 and S3
There was no loss in pressure.

Witnessed By:		**Witnessed By:**	
Name:	W. R. Bingham	**Name:**	Steve Liatti
Organization:	Parsons	**Organization:**	Shaw Environmental
Signature:		**Signature:**	
Date:	9/16/04	**Date:**	9/16/04

PRESSURE TEST REPORT

Project:	RHRL Landfill Closure	**Test No.:**	07
Client:	Honeywell	**Test Date:**	9/21/04
Prime Contractor:	Shaw Environmental		
Subcontractor:	NA		

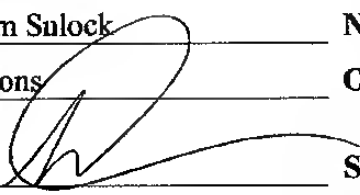
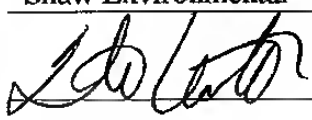
Reference Drawings:	C-101, C-102, C-103, I-103
System:	Groundwater Collection
Line Description:	3-Inch HDPE Conveyance Pipe
From:	Collection sump S-3
To:	First butterfly valve on equalization tank T-1 at the GWTP

Test Method:	Pressure	**Test Medium:**	Air
Test Pressure:	80 psi	**Test Gauge:**	0-100 psi
Starting Pressure:	80 psi	**Ending Pressure:**	80 psi

Start Test: 1615 **End Test:** 1650 **Holding Time:** 35 Minutes

Leaks Detected: No **Retest Required:** No

Remarks: This was a final test of the full length of the conveyance line from sump S-3 to the treatment plant.

	Witnessed By:		**Witnessed By:**
Name:	Norm Sulock	**Name:**	Steve Liatti
Organization:	Parsons	**Organization:**	Shaw Environmental
Signature:		**Signature:**	
Date:	9/21/04	**Date:**	9/21/04

PRESSURE TEST REPORT

Project: RHRL Landfill Closure **Test No.:** 08

Client: Honeywell **Test Date:** 10/21/04

Prime Contractor: Shaw Environmental

Subcontractor: NA

Reference Drawings: C-101, C-102, C-103, I-103

System: Acid Feed

Line Description: ½ " HDPE Acid Supply Pipe

From: Groundwater Treatment Plant (GWTP)

To: Collection Sump S-1

Test Method: Pressure **Test Medium:** Air

Test Pressure: 5 psi **Test Gauge:** 0-100 psi

Starting Pressure: 21 psi **Ending Pressure:** 21 psi

Start Test: 1235 Hours **End Test:** 1300 Hours **Holding Time:** 25 Minutes

Leaks Detected: No **Retest Required:** No

Remarks: Established test pressure based on 10-feet of static head.
There was no loss in pressure.

Witnessed By:		**Witnessed By:**	
Name:	Norm Sulock	**Name:**	Steve Liatti
Organization:	Parsons	**Organization:**	Shaw Environmental
Signature:		**Signature:**	
Date:	10/21/04	**Date:**	10/21/04

PRESSURE TEST REPORT

Project:	RHRL Landfill Closure	**Test No.:**	09
Client:	Honeywell	**Test Date:**	10/22/04
Prime Contractor:	Shaw Environmental		
Subcontractor:	NA		

Reference Drawings:	C-101, C-102, C-103, I-103
System:	Acid Feed
Line Description:	½ " HDPE Acid Supply Pipe
From:	Groundwater Treatment Plant (GWTP)
To:	Collection Sump S-3

Test Method:	Pressure	**Test Medium:**	Air
Test Pressure:	5 psi	**Test Gauge:**	0-100 psi
Starting Pressure:	10 psi	**Ending Pressure:**	10 psi

Start Test: 0845 Hours **End Test:** 0915 Hours **Holding Time:** 30 Minutes

Leaks Detected: No **Retest Required:** No

Remarks: Established test pressure based on 10-feet of static head.
There was no loss in pressure.

Witnessed By:		**Witnessed By:**	
Name:	Norm Sulock	**Name:**	Steve Liatti
Organization:	Parsons	**Organization:**	Shaw Environmental
Signature:		**Signature:**	
Date:	10/22/04	**Date:**	10/22/04

PRESSURE TEST REPORT

Project: RHRL Landfill Closure **Test No.:** 10

Client: Honeywell **Test Date:** 10/22/04

Prime Contractor: Shaw Environmental

Subcontractor: NA

Reference Drawings: C-101, C-102, C-103, I-103

System: Acid Feed

Line Description: ½ " HDPE Acid Supply Pipe

From: Groundwater Treatment Plant (GWTP)

To: Collection Sump S-2

Test Method: Pressure **Test Medium:** Air

Test Pressure: 5 psi **Test Gauge:** 0-100 psi

Starting Pressure: 20 psi **Ending Pressure:** 20 psi

Start Test: 1000 Hours **End Test:** 1030 Hours **Holding Time:** 30 Minutes

Leaks Detected: No **Retest Required:** No

Remarks: Established test pressure based on 10-feet of static head.
There was no loss in pressure.

Witnessed By:		**Witnessed By:**	
Name:	Norm Sulock	**Name:**	Steve Liatti
Organization:	Parsons	**Organization:**	Shaw Environmental
Signature:		**Signature:**	
Date:	10/22/04	**Date:**	10/22/04

F-23

TOPSOIL MATERIAL TEST RESULTS

PARSONS

TO: David McDougal – D.A. Collins Environmental Services 101 Route 67, PO Box 191 Mechanicville, New York CC. Joseph Bianchi – Amphenol Corporation 40 to 60 Delaware Avenue Sidney, New York	Letter of Transmittal Date: 7/26/06 | Job No.: 752477 Richardson Hill Road Landfill Site Sidney, New York Re: **Submittal Pack-21**

ON BEHALF OF AMPHENOL WE ARE SENDING YOU THE FOLLOWING ITEMS:

☐ Shop drawings	☐ Attached	☐ Under separate cover via _____ the following items:		
☐ Copy of Letter	☐ Prints	☐ Plans	☐ Samples	☐ Specifications
☒ Reviewed Submittal – Date Received 7/26/06 (via fax)		☐ _____		

No. Copies	Description
1	Submittal Pack 21 – Topsoil – Geotechnical and Chemical Results (2 samples tested)

Notes:

1. The organic content of the topsoil was reported as 3.5 and 3.6 percent respectively as compared to the 4.0 percent required in Specification -02990. As a reference point, the organic content of the topsoil is above the 2.0 percent minimum recommended in standard NYSOOT Specifications (Section 713). For a critical application such as the landfill cover, our recent experience has indicated that 3.0 percent is generally a minimum value to provide a good growing substrate. Topsoil from this source with organic contents greater than 3.0 percent was successfully used at the Sidney Landfill nearby. Parsons feels that topsoil will be suitable for establishing a vegetative cover if the organic contents are above 3.0 percent and the pH is within the specified range. If the organic contents should fall below 3.0 percent or if the pH drops below the specified values, DAC should propose an alternate source or propose amendments to add during placement of the topsoil/seed that can support the vegetation.

CONTRACTOR SUBMITTAL REVIEW

Reviewed – No Comments _____ ☐
Comments as Noted _____ ☒
Revise & Resubmit _____ ☐
Not Subject to Review _____ ☐

Action taken hereon does not supersede requirements of applicable design drawings, specifications, orders, codes or regulations, or relieve the Contractor or Supplier from responsibility for errors and omissions. This review does not relieve Contractor of any responsibility for the completeness or correctness of detail or accuracy of any information submitted; nor does this review represent any liability therefore on the part of Amphenol.

By W A McDonnell Date 7/27/06

Transmitted:

By W A McDonnell Date 7/27/06

P:\PIT\Projects\Honeywell\Rich LF\2006 Construction\Submittals\Submittal-21-RDD.doc

SUBMITTAL FOR:

RICHARDSON HILL ROAD LANDFILL

SIDNEY, NEW YORK

TOPSOIL

GEOTECHNICAL AND CHEMICAL RESULTS

(02990)

SUBMITTED TO:

AMPHENOL CORPORATION
Mr. Joseph Bianchi
40-60 Delaware Avenue
Sidney, NY 13838-1395

PARSONS
Mr. William J. Long
290 Elwood Davis Road, Suite 312
Liverpool, NY 13088

SUBMITTED BY:

D.A. COLLINS ENVIRONMENTAL SERVICES
101 Route 67, PO Box 191
Mechanicville, New York 12118-0190
Ph. 518-664-9855 / Fax 518-664-9609

D.A. COLLINS COMPANIES

A Proud Member of the D.A. Collins Companies

JULY 26, 2006

1.0 Geotechnical and Chemical Results

Attached are the geotechnical and chemical results for the topsoils collected from Warrens Farms on 7/19/06 which will be used at the Richardson Hill Road Landfill Site.

Adirondack Environmental Services, Inc.
Experience is the solution
314 North Pearl Street
Albany, New York 12207
518-434-4546/434-0891 FAX

CHAIN OF CUSTODY RECORD

A full service analytical research laboratory offering solutions to environmental concerns

Client Name: D.A. Collins Env.	Address: 1011 Rt. 67, POB 191, Mechanicville, NY		
Send Report To: D. MacDougall	Project Name (Location) RHRL	Samplers: (Names) D. MacDougall	
Client Phone No: 664-9855	Client Fax No: 664-0925	PO Number: 2005508	Samplers: (Signature)

AES Sample Number	Client Sample Identification & Location	Date Sampled	Time A.m. P.m.	Sample Type Matrix	Comp	Grab	Number of Cont's	Analysis Required
001	WF Topsoil - 2	7/19	10	SO	X		1	PCB
002	WF Topsoil - 3	"	10	SO	X		1	PCB

3 DAY TAT

RECEIVED
JUL 25 2006
D.A. COLLINS, CONST.

AES Work Order #: 060720006

CC Report To / Special Instructions/Remarks:

Turnaround Time Request:
☐ 1 Day ☒ 3 Day ☐ Normal
☐ 2 Day ☐ 5 Day

Relinquished by: (Signature)	Received by: (Signature) Laura Stone	Date/Time 7/20/06 0810
Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Received for Laboratory by:	Date/Time 7/20/06 9:11

Temperature: Ambient or Chilled 27°C
Notes:

Properly Preserved: (Y) N
Notes:

Received Within Holding Times: (Y) N
Notes:

WHITE - Lab Copy YELLOW - Sampler Copy PINK - Generator Copy

Adirondack Environmental Services, Inc

Date: *24-Jul-06*

CLIENT: D.A.Collins Environment
Project: Soils
LabWork Order: 060720006
PO#: 2005508

Lab SampleID: 060720006-001
Client Sample ID: WF Topsoil-2
Collection Date: 7/19/2006
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS SW8082 (Prep: SW3545 - 7/20/2006)						Analyst: KF
Aroclor 1016	< 38	38		µg/Kg-dry	1	7/21/2006 6:41:06 AM
Aroclor 1221	< 38	38		µg/Kg-dry	1	7/21/2006 6:41:06 AM
Aroclor 1232	< 38	38		µg/Kg-dry	1	7/21/2006 6:41:06 AM
Aroclor 1242	< 38	38		µg/Kg-dry	1	7/21/2006 6:41:06 AM
Aroclor 1248	< 38	38		µg/Kg-dry	1	7/21/2006 6:41:06 AM
Aroclor 1254	< 38	38		µg/Kg-dry	1	7/21/2006 6:41:06 AM
Aroclor 1260	< 38	38		µg/Kg-dry	1	7/21/2006 6:41:06 AM

Lab SampleID: 060720006-002
Client Sample ID: WF Topsoil-3
Collection Date: 7/19/2006
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS SW8082 (Prep: SW3545 - 7/20/2006)						Analyst: KF
Aroclor 1016	< 37	37		µg/Kg-dry	1	7/21/2006 7:11:09 AM
Aroclor 1221	< 37	37		µg/Kg-dry	1	7/21/2006 7:11:09 AM
Aroclor 1232	< 37	37		µg/Kg-dry	1	7/21/2006 7:11:09 AM
Aroclor 1242	< 37	37		µg/Kg-dry	1	7/21/2006 7:11:09 AM
Aroclor 1248	< 37	37		µg/Kg-dry	1	7/21/2006 7:11:09 AM
Aroclor 1254	< 37	37		µg/Kg-dry	1	7/21/2006 7:11:09 AM
Aroclor 1260	< 37	37		µg/Kg-dry	1	7/21/2006 7:11:09 AM

RECEIVED
JUL 25 2006
D.A. COLLINS, CONST.

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits, Estimated
B - Analyte detected in the associated Method Blank
X - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
T - Tentitively Identified Compound-Estimated Conc.
E - Value above quantitation range

CONSTRUCTION TECHNOLOGY

INSPECTION & TESTING DIVISION, P.D.& T.S., INC.
4 William Street, Ballston Lake, New York 12019
Phone: (518) 399-1848 Fax: (518) 399-1913

CLIENT: D. A. COLLINS ENVIRONMENTAL, INC.
POST OFFICE BOX 191
MECHANICVILLE, NEW YORK 12118

ATTN: MR. DAVID MacDOUGAL
PROJECT: RICHARDSON HILL ROAD LANDFILL

REPORT DATE: 07/20/06
SAMPLE NUMBER: 8425
OUR FILE NO: [redacted]
REVIEWED BY: TOM JOSLIN, SET, NICET

ASTM C136 / C117 / D422: SIZE DISTRIBUTION OF SOIL & AGGREGATES; SIEVE ANALYSIS

MATERIAL SOURCE: CLIENT ID: TOPSOIL SAMPLE TS-2
MATERIAL DESCRIPTION: SAND, fine/medium; some Silt/Clay; little fine Gravel
MATERIAL PROJECT USE: TOPSOIL
EVALUATION SPECIFICATION: PROJECT SPECIFICATIONS

COARSE SIEVE SERIES: US STANDARD

SIEVE SIZE	PERCENT RETAINED	PERCENT PASSING	SPECIFICATION ALLOWANCE
6"			
3"			
2 1/2"			
2"		100.0	100 - 100
1 1/2"			
1"		100.0	85 - 100
3/4"	5.5	94.5	
1/2"	8.4	91.6	
3/8"	11.7	88.3	

MEDIUM SIEVE SERIES: US STANDARD

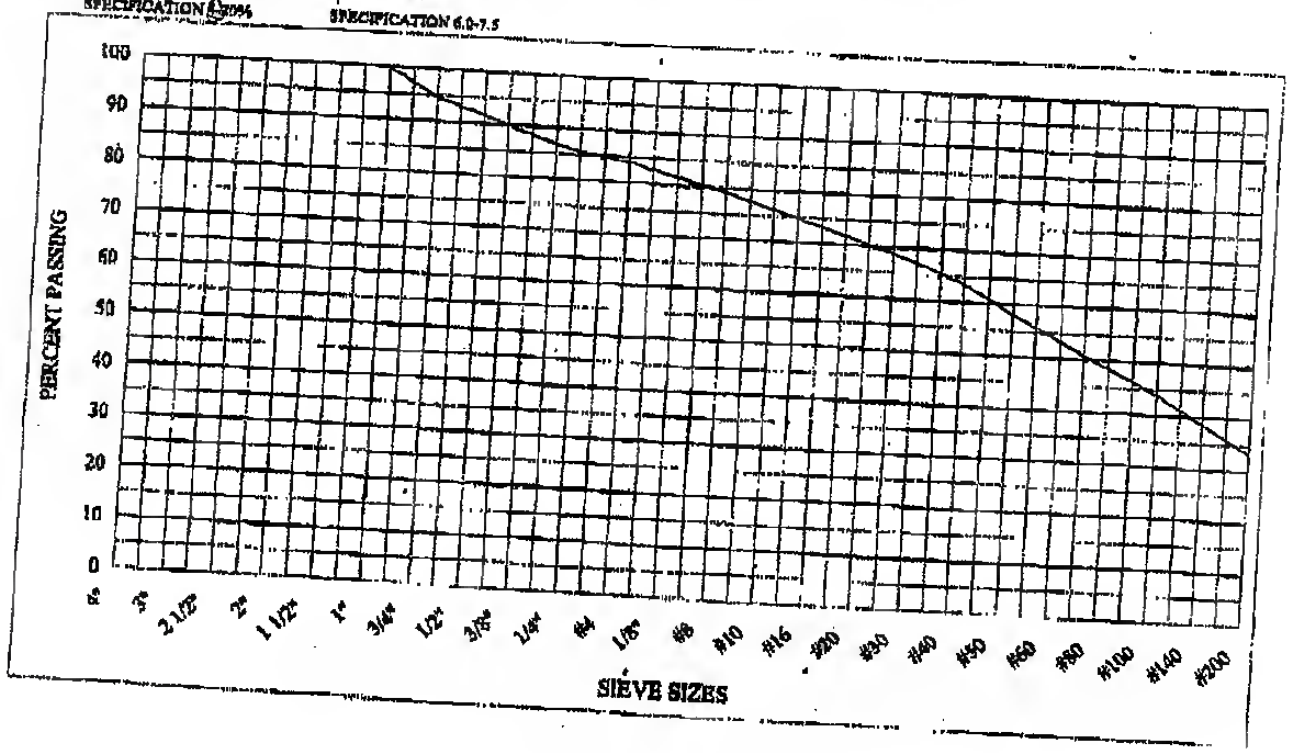
SIEVE SIZE	PERCENT RETAINED	PERCENT PASSING	SPECIFICATION ALLOWANCE
1/4"	14.5	85.5	65 - 95
#4	15.9	84.1	
1/8"			
#8	20.8	79.2	
#10			
#16	26.6	73.4	
#20			
#30	32.8	67.2	
#40	36.6	63.4	

FINE SIEVE SERIES: US STANDARD

SIEVE SIZE	PERCENT RETAINED	PERCENT PASSING	SPECIFICATION ALLOWANCE
#50	42.1	57.9	
#60			
#80			
#100	56.2	43.8	
#140			
#200	66.8	33.2	20 - 80
SILT			
CLAY			
COLLOID			

ASTM D-2974
ORGANIC CONTENT
3.6%
SPECIFICATION 5.0%

ASTM D-4972
SOIL pH VALUE
6.5
SPECIFICATION 6.0-7.5



CONSTRUCTION TECHNOLOGY

INSPECTION & TESTING DIVISION, P.D.& T.S., INC.
4 William Street, Ballston Lake, New York 12019
Phone: (518) 399-1848 Fax: (518) 399-1913

CLIENT: D. A. COLLINS ENVIRONMENTAL, INC.
POST OFFICE BOX 191
MECHANICVILLE, NEW YORK 12118

ATTN: MR. DAVID MacDOUGAL
PROJECT: RICHARDSON HILL ROAD LANDFILL

REPORT DATE: 07/20/06
SAMPLE NUMBER: 8426
OUR FILE NO: [redacted]
REVIEWED BY: TOM JOSLIN, SET, NICET

ASTM C136 / C117 / D422: SIZE DISTRIBUTION OF SOIL & AGGREGATES: SIEVE ANALYSIS

MATERIAL SOURCE: CLIENT ID: TOPSOIL SAMPLE TS-3
MATERIAL DESCRIPTION: SAND, fine/medium; some Silt/Clay; little fine Gravel
MATERIAL, PROJECT USE: TOPSOIL
EVALUATION SPECIFICATION: PROJECT SPECIFICATIONS

COARSE SIEVE SERIES: US STANDARD

SIEVE SIZE	PERCENT RETAINED	PERCENT PASSING	SPECIFICATION ALLOWANCE
4"			
3"			
2 1/2"			
2"		100.0	100 - 100
1 1/2"			
1"		100.0	85 - 100
3/4"	6.6	93.4	
1/2"	11.0	89.0	
3/8"	12.4	87.6	

MEDIUM SIEVE SERIES: US STANDARD

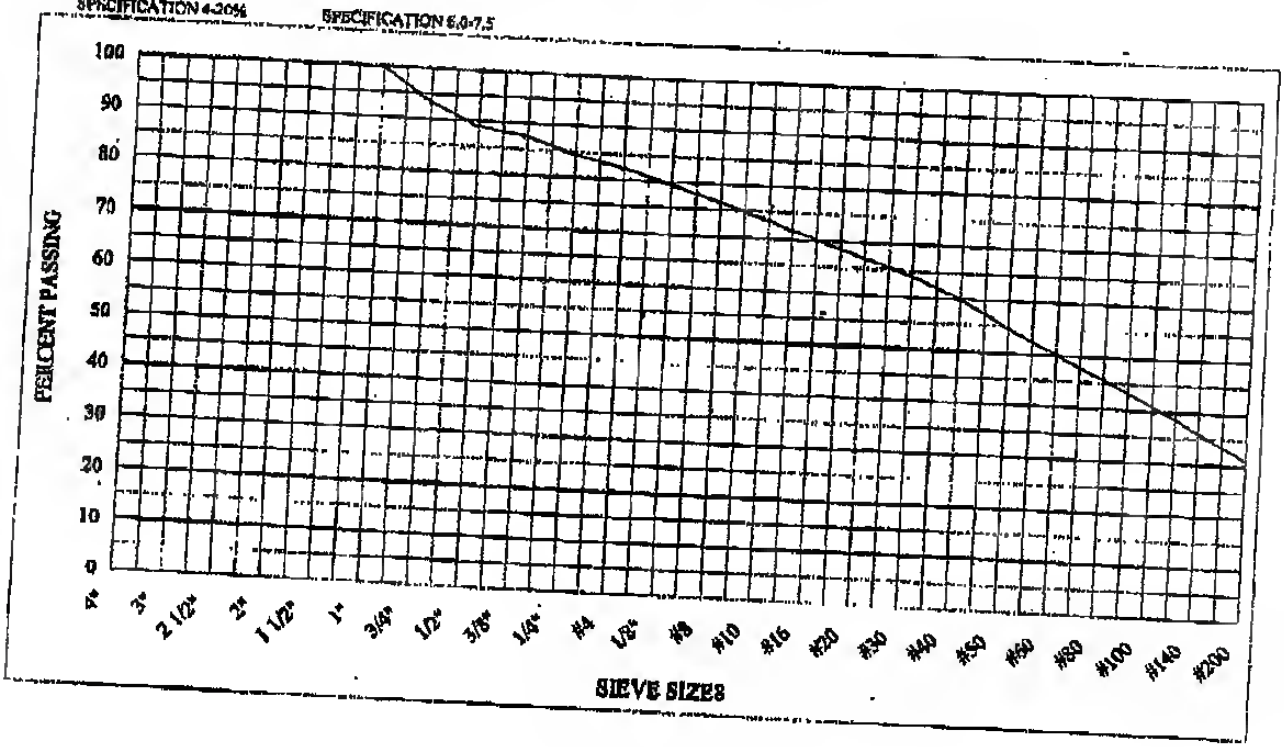
SIEVE SIZE	PERCENT RETAINED	PERCENT PASSING	SPECIFICATION ALLOWANCE
1/4"	15.7	84.3	65 - 95
#4	17.8	82.2	
1/8"			
#8	23.6	76.4	
#10			
#16	29.8	70.2	
#20			
#30	36.1	63.9	
#40	40.1	59.9	

FINE SIEVE SERIES: US STANDARD

SIEVE SIZE	PERCENT RETAINED	PERCENT PASSING	SPECIFICATION ALLOWANCE
#50	45.4	54.6	
#60			
#80			
#100	59.1	40.9	
#140			
#200	69.0	31.0	20 - 80
SILT			
CLAY			
COLLOID			

ASTM D-2974
ORGANIC CONTENT
3.5%
SPECIFICATION 4-20%

ASTM D-4972
SOIL pH VALUE
6.5
SPECIFICATION 6.0-7.5



RECEIVED
AUG 15 2005

SUBMITTAL FOR:

RICHARDSON HILL ROAD LANDFILL

SIDNEY, NEW YORK

TOPSOIL

GEOTECHNICAL AND CHEMICAL RESULTS

(02990)

✓	NO EXCEPTIONS
	EXCEPTIONS AS NOTED
✓	PROCEED WITH WORK
	RESUBMIT
	SUBMIT CERTIFIED PRINTS

PARSONS
CLIENT/JOB NO 747577
CONTRACT
BY DATE 8/15/05

ACTION TAKEN HEREON DOES NOT SUPERSEDE REQUIREMENTS OF APPLICABLE DESIGN DRAWINGS, SPECIFICATION, ORDERS, CODES OR REGULATIONS, OR RELIEVE THE CONTRACTOR OR SUPPLIER FROM RESPONSIBILITY FOR ERRORS OR OMISSIONS.

ORIGINAL COPY
SIGNED BY
ACCEPT AS IS

AMPHENOL CORP
Mr. Joseph Bianchi
40-60 Delaware Aver
Sidney, NY 13838-1

D.A. COLLINS EN
101 Route 67, PO Bo
Mechanicville, New
Ph 518-664-9855 / F

1.0 Geotechnical and Chemical Results

Attached are the geotechnical and Chemical results for the topsoil from Warrens Farms which will be used at the Richardson Hill Road Landfill Site.

CME Associates, Inc.

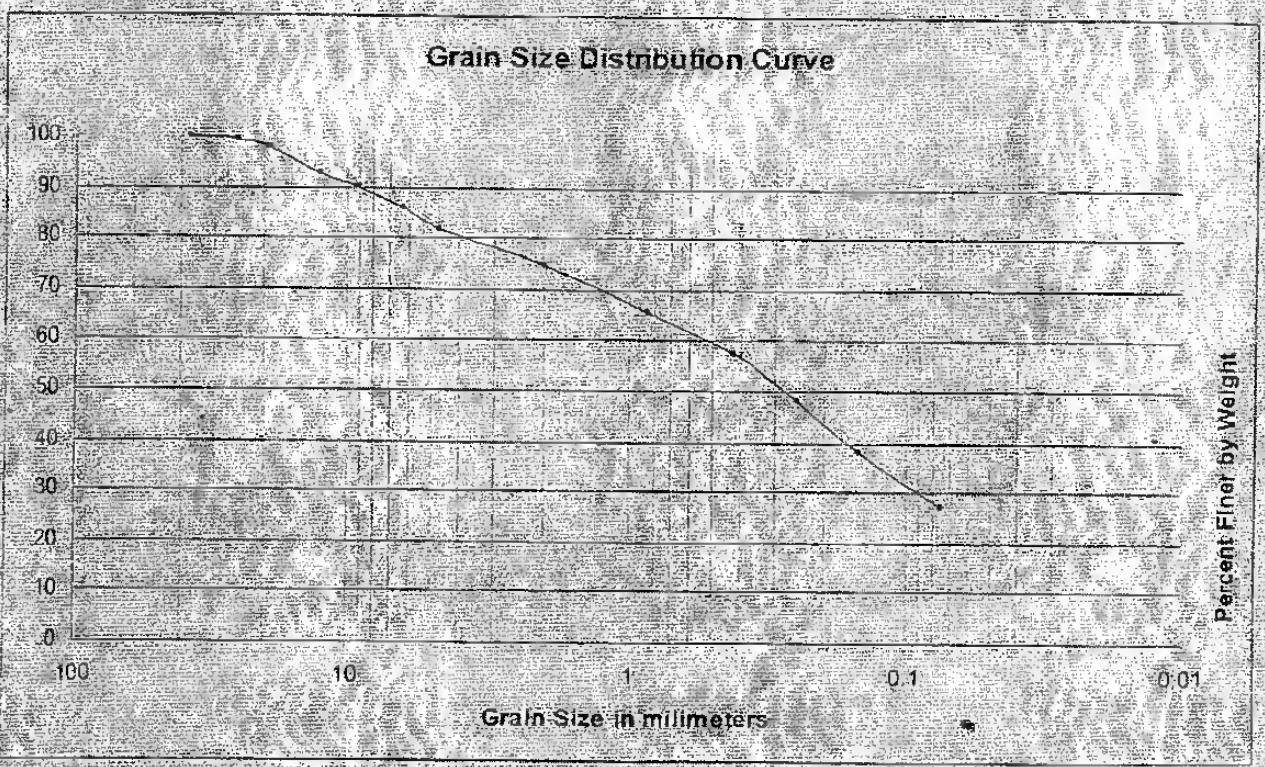
209 Peru Road
Groton, New York 13073
(607) 898-9767
(607) 898-9176 (Fax)

www.cmeassociates.com

LABORATORY TEST REPORT

CLIENT: Parsons
REPORT NO.: 20015S-79-0505 (revised 6-9-05)
SAMPLE LOCATION: Warren's Farm
SOIL CLASSIFICATION: Top Soil

PROJECT: Richardson Hill Road Landfill
SAMPLE NO.: EL - 668
DATE PICKED UP: May 26, 2005



Sieve Size	Sample	Specification
2"	100	100
1 ½"	100	
1"	99.4	85 - 100
3/4"	97.8	
1/2"	92.7	
1/4"	85.7	65 - 95

Sieve Size	Sample	Specification
# 4	81.9	<30% clay
#40	57.5	
#200	27.3	20 - 80
pH	5.4	6.0 - 7.5
Organic Matter	2.8%	4.0% - 20%

Adirondack Environmental Services, Inc

Date: *15-Aug-05*

CLIENT: D'A Collins Environment
Project:

LabWork Order: 050812057
PO#:

Lab SampleID: 050812057-001
Client Sample ID: Topsoil-Warren Farms

Collection Date: 8/12/2005
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS SW8082(SW3545)						Analyst: KF
Aroclor 1016	< 36	36		µg/Kg-dry	1	8/12/2005 8:35:46 PM
Aroclor 1221	< 36	36		µg/Kg-dry	1	8/12/2005 8:35:46 PM
Aroclor 1232	< 36	36		µg/Kg-dry	1	8/12/2005 8:35:46 PM
Aroclor 1242	< 36	36		µg/Kg-dry	1	8/12/2005 8:35:46 PM
Aroclor 1248	< 36	36		µg/Kg-dry	1	8/12/2005 8:35:46 PM
Aroclor 1254	< 36	36		µg/Kg-dry	1	8/12/2005 8:35:46 PM
Aroclor 1260	< 36	36		µg/Kg-dry	1	8/12/2005 8:35:46 PM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits Estimated
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
T - Tentatively Identified Compound-Estimated Conc.
E - Value above quantitation range

F-24

PUNCHLISTS

Richardson Hill Road Landfill GWTP
PUNCHLIST

Finding No.	Description of Finding	Date Identified	Date Corrected	Date Accepted
1	Level Diesel Generator pad and perform start-up of Generator	5/8/2003	6/3/03	6/3/03 mD
2	Repair Roof Cap from hole used for installation of OWS	5/8/2003	5/16/03	5/16/03 mD
3	Repair roof insulation damaged due to item No 2 listed above	5/8/2003	5/15/03	5/15/03 mD
4	Adjust Overhead Door located in S/E corner of the building	5/8/2003	5/20/03	5/20/03 mDm
5	Balance three (3) exhaust fans on the south wall [order pulleys]	5/8/2003	6/6/03	6/4/03 mD
6	Replace 5 malfunctioning pressure guages (P-1; P-2; Caustic, Skid-5)	5/8/2003	5/29/03	5/24/03 mD
7	Enhance support hangers and braces for process piping	5/8/2003	5/13/03	5/13/03 mDm
8	Complete labelling of elect panels, piping, pumps and valves	5/8/2003	6/27/03	6/27/03 mDm
9	Install lockable caps to groundwater recovery wells RW3 and RW4	5/8/2003	5/9/03	mDm 5/9/03
10	Install concrete well seals for recovery wells 1, 2, 3, and 4	5/7/2003	5/7/2003	mDm 5/7/03
11	Install heat tape and insulation to T-1, T-2 and exterior piping	5/8/2003	7/8/03	7/8/03
12	3 coats to Main Sump, 1 coat caustic dike, 1 coat Acid/Polymer area	5/8/2003	5/30/03	5/30/03 mDm
13	Install H2O hose bib for general use and carbon change-out	5/7/2003	5/7/2003	mDm 5/7/03
14	Credit for chemicals needed for start-up (to be included in O&M work) [Change order #2]	5/8/2003	NA	mDm
15	Deliver and Install granulated activated carbon Friday 5/16/03	5/8/2003	5/16/03	mDm 5/16/03
16	Submit all completed hydro leak testing results with proper definition	5/8/2003	5/22/03	5/22/03 mDm
17	Submit PLC testing results	5/8/2003	6/16/03	6/16/03 mDm
18	Submit Performance test Results (Predicated on O&M deferment)	5/8/2003	NA	mDm
19	Integrate fire alarm system with auto-dialer	5/8/2003	5/14/03	5/14/03 mDm
20	Repair silt fence along the northern perimeter boundary (1)	5/8/2003	5/12/03	mDm 5/12/03
21	Complete fencing w/ barbed wire, adjust front gates	5/8/2003	5/9/03	mDm 5/12/03
22	Submit final ~~as-built record drawings and~~ survey including elev, with N and E coordinates	5/8/2003	5/19/03	6/4/03 mDm
23	Paint exposed propane gas piping along east wall of building and at Propane tanks	5/8/2003	5/22/03	5/22/03 mDm
24	~~Install~~ Tighten link-seals at all pipe pentrations for building openings	5/8/2003	5/13/03	5/13/03 mDm

(1) NYCDEP agreed that the existing silt fence does not require maintenance due to successful establishment of vegetation on the western slope within the North Area.

NA Not Applicable. Chemical delivery and performance test with chemicals and contaminated groundwater will be completed during the O&M period.

Richardson Hill Road Landfill
GWTP – Phase 1
Final Punch List

Ed Rudy and Matt Millias of Parsons have conducted numerous GWTP inspections throughout the project and maintain close communication with Samco. As part of the project requirements, a final inspection was conducted by Parsons on Tuesday, May 06, 2003. The following is a list of remaining work items that must be completed prior to May 23, 2003 in order to meet the final completion contract date:

1. Due to settlement, the diesel generator pad must be leveled. Samco, Parsons, Honeywell/Amphenol have agreed on the following procedure: excavate the backfill from below the northern edge of the concrete pad; construct a concrete wall (knee wall) to support jacks; jack up the slab using caution not to damage; backfill and pressure grout below the slab; backfill around the slab. Samco will conduct a diesel generator test following leveling.
2. Repair the roof cap on the southern end with tin roof cover.
3. Repair roof insulation. Simple taping will likely take care of this item.
4. Southeast overhead door requires an adjustment. Currently, there is an intermittent hesitation during opening and closing.
5. Balance the 3 exhaust fans. This activity is an industry standard requirement but was not completed during installation.
6. Replace 5 pressure gauges that were not functioning during leak testing.
7. Install pipe supports along western wall to tighten piping. Vibrations were detected during leak testing.
8. Label electrical panels, pumps, process piping, etc.
9. Caps for RW3&4.
10. Concrete pads for RW1-4.
11. Heat tracing and insulation for exterior piping and tanks. Tighted link seals at containment wall penetrations.
12. Coatings for main sump (3 remaining coats), exterior containment area (2 remaining coats), caustic containment area (1 remaining coat), acid/polymer containment area (1 remaining coat).
13. Installation of general use water tap at carbon skid. This will be used for carbon change-out, cleaning of the GWTP, etc.
14. Chemical delivery [50% caustic, 98% acid, PAC, polymer, Diatumatious Earth (DE)]. Note that Honeywell/Amphenol have directed Samco to delay chemical delivery until after May 23rd.
15. Granular Activated Carbon delivery and installation into vessels.
16. Leak testing with results.
17. PLC testing with results.
18. Performance testing with results.
19. Integrate fire alarm system with autodialer.
20. Repair of the original silt fence on western site of North Area.
21. Security fence completion: front gate adjustments, 3-string barbed wire stretched.

22. Final survey including locations of GWTP, storage shed, field office, RW1-4, NMW1-4, other existing North Area wells, septic tank, Pullbox 1a, 1b, 7a, 7b permanent fence, diesel generator pad, air make up pad, propane pad, permanent electrical pole/wire, access roads. Elevation shots of the GWTP main slab, well casings, and general terrain are required for a complete final survey.
23. Paint (yellow) the above ground propane pipes along the east wall of the GWTP and the propane tanks.

On or before May 23, 2003, submit to Parsons a written notification that these items have been completed. Parsons and Samco should keep the verbal lines of communication open to ensure a successful completion to the project.

parsons

From: <Chang.Young@epamail.epa.gov>
To: "Parsons" <ParsonsRHRL@Frontiernet.net>
Cc: "Haryani, Amit" <Amit.Haryani@earthtech.com>; <martin.derby@earthtech.com>
Sent: Monday, May 12, 2003 11:12 AM
Subject: Re: RHRL - GWTP Building Inspection Report

TAMS, EPA Oversight Contractor have completed the GWTP building inspection on behalf of EPA. As noted below in the original message from Amit, Mike Garver was present during the inspection. Mike was informed of the TAMS noted deficiencies and Amit was informed by Mike that he is already aware of those items and are being addressed. Prior to May 23, projected completion date, EPA will confirm with Parson and Samco that all items have been addressed.

Young

"Haryani, Amit" <Amit.Haryani@earthtech.com> 05/09/2003 10:26 AM

To: Young Chang/R2/USEPA/US@EPA
cc: "Derby, Martin" <Martin.Derby@earthtecb.com>
Subject: RHRL - GWTP Builing Inspection Report

Dear Young:

Per your request I have documents my observations during the GWTP builing inspection on the list prepared by Maheyar of Earth Tech. All the items that have deficiencies and need to be addressed have been bolded.

Mike Garver of Samco was present during the Inspection and is aware of the deficiencies and already has plans to address them next week.

I will fax you the Punch List prepared by Parsons from their Inspection.

Regards
Amit

Richardson Hill Landfill
Draft Punch List – (Updated 8/24/06)

Landfill Cap

1. **Complete placement of barrier protection material** – Placement of BPM on going and expected to be complete by 9/6.
2. **Complete placement of topsoil** – Placement of top soil on going and expected to be complete by 9/6.
3. **Complete seeding of landfill cap areas** – Seed placed as areas are completed. Expected to be complete by 9/8.
4. Perform touch up of seeding along landfill reaches. – Touch up areas expected to be completed by 9/8.
5. **Check heights and extend gas vents as required** – Gas vents will be checked for height and extended to correct height. Expect to be completed by 9/20.
6. **Perform as-built survey (i.e. reaches, topsoil, BPM, fence line, etc.)** – As built survey to be performed upon completion of earth work. Earth work expected to be complete by 9/20.
7. **Remove silt fence at toe of landfill** – Silt fence to remain until vegetation is established on slope.
8. **Check grading of Cap Area 5** – Area will be checked and repairs made if required.
9. **Inspect and repair (as necessary) liner in the NW corner of the landfill** – NW corner to be checked upon removal of Reach E temporary access road crossing.
10. **Repair tear in liner along road** – Repairs to liner will be performed during removal of Reach E temporary access road crossing.

Extraction Trench

1. **Clean staging areas along extraction trench alignment, re-grade and re-seed as necessary** – Areas to be cleared, re-graded, and re-seeded. Expected completion by 9/20.
2. **Remove jersey barriers along trench alignment** – Jersey barriers to be removed prior to 9/13 guide rail installation
3. **Install guardrails to protect extraction trench wells and pumps** – Guide rail installation scheduled for 9/13 and expected to be complete by 9/15.
4. **Remove/dispose silt fence along extraction trench alignment** – Silt fence to remain until vegetation is established.
5. **Survey trench alignment** – Survey scheduled for week of 8-28.
6. **Remove/disposal piles of debris and sand bags along extraction trench alignment** – Removal of debris and sand bags on going and expected to be complete by 9/25.

Erosion and Sediment Control

1. **Install drainage swale between toe of landfill and shed** – Drainage swale to be installed and expected to be complete by 9/20.
2. **Vegetate access road south of the site fence line** – Completed on 8/17.
3. **Remove turbidity curtains from Sediment Trap 1 and 2** - Turbidity curtains to remain until vegetation is established on landfill slopes.

4. **Seed temporary access road north of Cap Area 3** – Seeding to be completed by 9/8.
5. **Clean up Reach J along RHR (i.e. slope and alignment)** – Clean up and re-alignment expected to be complete by 9/20.
6. **Repair washout at outlet of Reach B, C, I, H ,and G,** – Repairs on going and expected to be complete by 9/25.
7. **Re grade, top soil and seed area L5** – Seeding expected to be complete by 9/8.
8. **Clean Reaches CH-4, E, F, D, J and 8C** – Cleaning expected to be complete by 9/20.
9. **Complete Reach D along access road** – Work is on going and expected to be complete by 9/20.
10. **Stabilize access road on north side of the site (along reach CH-10C)** – Road to be maintained during construction. Gate to be placed at L-5 area.
11. **Install flared end section at CV-4** – Flared end to be installed and complete by 9/20.
12. **Install drainage swale at toe of CH8a** – Fabric and rock lined swale to be installed and complete by 9/20.

Other

1. **Repair/Replace existing site perimeter fencing and gates where damaged** - Site fence to be inspected and damaged areas repaired by 9/20.
2. **Install fence and repair gate at the bottom toe of the landfill** - Fence repairs and installation to be completed by 9/20.
3. **Remove/dispose of hay in shed** – Left over hay bales will be removed prior to demobilization on 9/25.
4. **Bury telephone line** – Telephone line to be buried by 9/25.
5. **Remove rebar tie downs on the west side of Reach E** – Rebar tie downs to be removed by 9/20.
6. **Remove site trailers** – Site trailers to be removed by 9/25.
7. **Remove temporary access across Reach E and establish access road along top of landfill** – Temporary access to be removed and completed by 9/20.
8. **Remove temporary access across Reach E at restoration area** – Temporary access to be removed and complete by 9/20.
9. **Remove stockpiled GDC and HDPE from various locations throughout the site** – General clean up and removal of all debris to be completed by 9/25.
10. **Survey elevation of TSCA cell sumps and collection trench extraction well pumps** – Survey scheduled for week of 8/28.
11. **Remove all remaining silt fence at North pond** – Silt fence to be removed and completed by 9/20.

Richardson Hill Landfill
Draft Punch List – (Updated 10/5/06)

#	Item	Estimated Completion Date	Status
Landfill Cap			
1	Complete placement of barrier protection material	9/6/06	Completed - 9/20/06 ✓
2	Complete placement of topsoil	9/6/06	Completed 10/6/06 ✓
3	Complete seeding of landfill cap areas	9/8/06	Completed – 9/28/06 ✓
4	Perform touch up of seeding along landfill reaches	9/8/06	Completed ✓ 10/4/06
5	Check heights and extend gas vents as required	9/20/06	Completed - ✓ 9/18/06
6	Perform as-built survey (i.e. reaches, topsoil, BPM, fence line, etc.)	9/20/06	Not started ~~completed~~ 12/12/06 ✓
7	Remove silt fence at toe of landfill –silt fence to remain until vegetation is established		Completed – 9/8/06 ✓
8	Check grading of Cap Area 5		Completed - 9/11/06 ✓
9	Inspect and repair (as necessary) liner in the NW corner of the landfill – NW corner to be checked upon removal of Reach E temporary access road crossing	9/22/06	Completed - 9/26/06 ✓
10	Repair tear in liner along road – Repairs to liner will be performed during removal of Reach E temporary access road crossing	9/22/06	Completed - 9/26/06 ✓
Extraction Trench			
1	Clean staging areas along extraction trench alignment, re-grade, and re-seed as necessary.	9/20/06	Completed 10/5/06 ✓
2	Remove jersey barriers along the extraction trench alignment	9/13/06	Completed – 9/8/06 ✓
3	Install guardrails to protect extraction trench wells and sumps	9/22/06	Completed - 9/19/06 ✓
4	Remove/dispose silt fence along extraction trench alignment after vegetation established	TBD	Leave until spring 07
5	Survey trench alignment	8/28/06	Completed – ~~9/6/06~~ 12/12/06 ✓
6	Remove/disposal piles of debris and sand bags along extraction trench alignment	9/25/06	Completed – 9/29/06 ✓
Erosion and Sediment Control			
1	Install drainage swale between toe of landfill and shed	9/20/06	Completed - 9/15/06 ✓
2	Vegetate access road south of the site fence line	9/22/06	Completed - 9/25/06 ✓
3	Remove turbidity curtains from Sediment Trap 1 and 2	TBD	Leave until 07

Richardson Hill Landfill
Draft Punch List – (Updated 10/5/06)

	– Turbidity curtains to remain until vegetation is established on landfill slopes		
4	Seed temporary access road north of Cap Area 3	9/22/06	Completed - 9/14/06 ✓
5	Clean up Reach J along RHR (i.e. slope and alignment)	9/20/06	Completed – 9/12/06 ✓
6	Repair washout at outlet of Reach B,C, 1, H, and G	9/25/06	Completed 8/24/06 ✓
7	Re-grade, topsoil, and seed area L5 (area covered with light stone)	9/22/06	Completed – 9/29/06 ✓
8	Clean Reaches CH-4, E, F, D, J, 8C	9/20/06	Completed – 9/29/06 ✓
9	Complete Reach D along RHL road	9/20/06	Completed – 9/6/06 ✓
10	Stabilize access road on north side of the site (along reach CH-10C)	9/22/06	Completed 10/4/06 ✓
11	Install flared end section at CV-4	9/20/06	Completed 9/23/06 ✓
12	Install drainage swale at toe of CH8a	9/20/06	Completed - 9/21/06 ✓
Other			
1	Repair/Replace existing site perimeter fencing and gates where damaged	9/20/06	Completed 10/5/06 ✓
2	Install fence and repair gate at the bottom toe of the landfill	9/20/06	Completed – 9/29/06 ✓
3	Remove/dispose of hay in shed	9/25/06	
4	Bury telephone line	9/25/06	Completed - 9/18/06 ✓
5	Remove rebar tie downs on the west side of Reach E	9/20/06	Completed - 9/15/06 ✓
6	Remove site trailers	9/29/06	10/6 or 10/9 ✓
7	Remove temporary access across Reach E and establish access road along top of landfill	9/20/06	Completed - 9/20/06 ✓
8	Remove temporary access across Reach E at restoration area	9/25/06	Completed - 9/27/06 ✓
9	Remove stockpiled GDC and HDPE from various locations throughout the site	9/25/06	Completed – 9/29/06 ✓
10	Survey elevation of TSCA cell sumps and collection trench extraction well pumps	8/28/06	Completed 9/6/06 ✓
11	Remove all remaining silt fence at North Pond	9/20/06	Completed 9/8/06 ✓

Qre 10/10/06 RO'H 12/18/06 (repeated)

F-3

CONCRETE TRIP TICKETS

PARSONS

Client _____ Job No. _____ Sheet ____ of ____

Subject _____ By _____ Date _____

_____ Checked _____ Rev. _____

RHRL GWTP Concrete Installed (Estimate)

Main slab w/ raised slabs $\left(\frac{10''}{12}\right)(60')(80') \approx 148$ cy

Tank/Equipment pads $\left(\frac{10''}{12}\right)(1600sf) \approx 50$ cy

Containment (exterior) slab ~ 10 cy

Footers spot & continuous $(6')(6')(2')(8) + (6')(2')(70') \approx 52$ cy
(21 cy + 31)

Grade beam $\left(\frac{8''}{12}\right)(10')(280') \approx 69$ cy

Misc. (make up pad, diesel generator pad, propane pad) $\left(\frac{10}{12}\right)(400sf)$ ~ 12 cy

Estimate Based on Dimensions = 341 cy

Actual Based on Attached trip tickets = 345.5 cy

Otsego Ready Mix

2 WELLS AVENUE ONEONTA, N.Y. 13820
PHONE (607) 432-3400

10

- NYS DOT APPROVED READY MIX
- AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME LEAVE PLANT	DISPATCHED BY
TIME ARRIVE JOB	UNLOADED BY
	Ralph
TIME LEAVE JOB	DEL. TICKET
	Jones
EXCESSIVE TIME	TRUCK NUMBER
	26

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS: 30 DAYS **NET SERVICE CHARGE** IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an **ANNUAL PERCENTAGE RATE OF 24%**. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

ACCOUNT	CUSTOMER	SHIP TO	PROMISE
REG 1 1601	GARBADE CONST CORP	RICHARDSON HILL LANDFILL	01/13/03
	PO BOX 951	SIDNEY CENTER, NY	
PLANT/TRUCK #	BINGHAMTON NY 13902	JOB # 589	P.O. NO.
02093		ROCHY	OUR TRUCK
INVOICE NUMBER	607-754-9609		CUSTOMER NUMBER
79102			

ORDERED BY	TIME	PROCESSED BY	SALESMAN
01/13/03	06:50	111-RALPH MEWHORTER	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
10.00	YDS		F-2 S 1/2 BAG MIX		
10	EA		POLAR SET 2% NON-CHLORIDE ADDITIVE		
10	EA		HOT WATER/HEATED MATERIAL		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: _____

SIDNEY CENTER

TAXABLE	NON-TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589 LANDFILL
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
08:27:53	0002/GAR/210.00	yd	50.00 yd	26

	Load No.	Shipped:	Slump:	Ticket No.
01-13-03	Today	1 10.00 yd	4.00 in	77541

Load Size:	Formula:	Description:	
10.00	0002/GAR/2	5.5 BAG 4000	50.00

Batch 1 of 2 Batch size 5.00 yd

-Material-	-Indication-	- AVDP EQU -	- Targets -	-% Tol-	WatFree	%Moist
#1 STONE	2080 kg	4586 lb	4519 lb	1.5	22.6	0.50
#2 STONE	4150 kg	9149 lb	9039 lb	1.2	22.7	0.50
SAND	7450 kg	16424 lb	16204 lb	1.4	411.8	6.00
CEMENT	1168 kg	2575 lb	2584 lb	-0.3		
WATER	306 L	81 G	81 G	0.0	674.8	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4588 mL	155 fl.oz	155 fl.oz	0.0		

Batch 2 of 2 Batch size 5.00 yd

-Material-	-Indication-	- AVDP EQU -	- Targets -	-% Tol-	WatFree	%Moist
#1 STONE	2060 kg	4542 lb	4519 lb	0.5	22.6	0.50
#2 STONE	4130 kg	9105 lb	9039 lb	0.7	22.7	0.50
SAND	7410 kg	16336 lb	16204 lb	0.8	409.3	6.00
CEMENT	1168 kg	2575 lb	2584 lb	-0.3		
WATER	306 L	81 G	81 G	0.0	674.8	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4588 mL	155 fl.oz	155 fl.oz	0.0		

DryAggs:	31849 lb
Cems:	5150 lb
Waters:	2262 lb
Total:	39260 lb
Wat/Cem:	0.439
Add:	

08:35:37 01-13-03
Bottles Empty

	Start	End
AGG	0	0 lb
CEM	0	4 lb

Otsego Ready Mix

2 WELLS AVENUE ONEONTA, N.Y. 13820
PHONE (607) 432-3400

40

- NYS DOT APPROVED READY MIX
- AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME LEAVE PLANT	ASSEMBLY
TIME AT JOB	YARDS UNLOADED
	Late
TIME LEAVE JOB	MIX DESIGNATION
	Smith
EXCESS WATER	TRUCK NUMBER
	29

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month for a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

ACCOUNT	CUSTOMER	SHIP TO	PREMIX
REG 1 1601	GARBADE CONST CORP	RICHARDSON HILL LANDFILL	01/13/03
P.O. NUMBER	BOX 851	SIDNEY CENTER, NY	TRUCKING
02093	BINGHAMTON NY 13902	JOB # 585	OUR TRUCK
INVOICE NUMBER	607-754-9609	POCHY	CUSTOMER NUMBER
79105			

ORDER DATE	TIME	PROCESSED BY	SALES LOCATION
01/13/03	06:51	111-RALPH MEWARTER	001-EOE HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
10.00	YDS		F-3/5 1/2 BAG MIX		
10	EA		POLAR SET 2% NON-CHLORIDE ADDITIVE		
10	EA		HOT WATER/HEATED MATERIAL		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: _____

SIDNEY CENTER

TAXABLE	NON-TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589 LANDFILL
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
10:31:52	0002/GAR/210.00 yd		50.00 yd	29

		Load No.	Shipped:	Slump:	Ticket No.
01-13-03		Today	4 40.00 yd	4.00 in	77545

Load Size:	Formula:	Description:	
10.00	0002/GAR/2	5.5 BAG 4000	50.00

Batch 1 of 2 Batch size 5.00 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2060 kg	4542 lb	4519 lb	0.5	22.6	0.50
#2 STONE	4140 kg	9127 lb	9039 lb	1.0	22.8	0.50
SAND	7400 kg	16314 lb	16204 lb	0.7	406.8	6.00
CEMENT	1168 kg	2575 lb	2584 lb	-0.3		
WATER	287 L	76 G	76 G	0.0	632.3	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4588 mL	155 fl.oz	155 fl.oz	0.0		

Batch 2 of 2 Batch size 5.00 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2050 kg	4519 lb	4519 lb	0.0	22.5	0.50
#2 STONE	4160 kg	9171 lb	9039 lb	1.5	23.1	0.50
SAND	7390 kg	16292 lb	16204 lb	0.5	403.1	6.00
CEMENT	1168 kg	2575 lb	2584 lb	-0.3		
WATER	287 L	76 G	76 G	0.0	632.3	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4588 mL	155 fl.oz	155 fl.oz	0.0		

DryAggs:	31705 lb
Cems:	5150 lb
Waters:	2165 lb
Total:	39021 lb
Wat/Cem:	0.420
Add:	

10:40:39 01-13-03
Bottles Empty

	Start	End	
AGG	0	0	lb
CEM	0	-13	lb

2 WELLS AVENUE · ONEONTA, N.Y. 13820
PHONE (607) 432-3400

- NYS DOT APPROVED READY MIX
- AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

30

MEET AVE. POINT	ASSIGN SLUMP
9:40	
TRUCK LOAD NO.	DISPATCHED TO
1	Pete
TIME LEAVE JOB	TRUCK PRESET
EXTRA SLUMP	TRUCK NUMBER
	251

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS 30 DAYS. NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

Page 1 of 1

ACCOUNT NO.	CUSTOMER	JOB NAME
REG 1 1601	BARBADE CONST CORP	RICHARDSON HILL LANDFILL
JOB NUMBER	BOX 851	SIDNEY CENTER, NY
02093	BINGHAMTON NY 13902	JOB # 589
INVOICE NUMBER		ROUTE
79104	607-754-9609	DUR TRUCK
		CUSTOMER P.O. NUMBER

ORDER DATE	TIME	SOLD TO	SHIP TO	DRIVER
01/13/02	06:51	111-RALPH MEWHORTER	101-BOB HARCEM	

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
10.00	YDS		F-2 5 1/2 BAG MIX		
10	GAL		POLAR SET 2% NON-CHLORIDE ADDITIVE		
10	EA		HOT WATER/HEATED MATERIAL		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: _____

SIDNEY CENTER

TAXABLE	NON-TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBAGE JOB 589 LANDFILL
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
09:41:59	0002/GAR/210.00 yd		50.00 yd	25

	Load No.	Shipped:		Slump:	Ticket No.
01-13-03	Today	3	30.00 yd	4.00 in	77544

Load Size:	Formula:	Description:	
10.00	0002/GAR/2	5.5 BAG 4000	50.00

Batch 1 of 2 Batch size 5.00 yd

-Material-	-Indication-		AVDP EQU		Targets		-% Tol-	WatFree	%Moist
#1 STONE	2060	kg	4542	lb	4519	lb	0.5	22.6	0.50
#2 STONE	4140	kg	9127	lb	9039	lb	1.0	22.8	0.50
SAND	7390	kg	16292	lb	16204	lb	0.5	405.6	6.00
CEMENT	1168	kg	2575	lb	2584	lb	-0.3		
WATER	384	L	101	G	101	G	0.0	845.7	
POLARSET	15392	mL	520	fl.oz	520	fl.oz	0.0		
DARACEM-5	4588	mL	155	fl.oz	155	fl.oz	0.0		

Batch 2 of 2 Batch size 5.00 yd

-Material-	-Indication-		AVDP EQU		Targets		-% Tol-	WatFree	%Moist
#1 STONE	2040	kg	4497	lb	4519	lb	-0.5	22.4	0.50
#2 STONE	4130	kg	9105	lb	9039	lb	0.7	22.9	0.50
SAND	7350	kg	16204	lb	16204	lb	0.0	401.8	6.00
CEMENT	1168	kg	2575	lb	2584	lb	-0.3		
WATER	380	L	100	G	101	G	-1.0	837.3	
POLARSET	15392	mL	520	fl.oz	520	fl.oz	0.0		
DARACEM-5	4588	mL	155	fl.oz	155	fl.oz	0.0		

DryAggs:	31598 lb
Cems:	5150 lb
Waters:	2581 lb
Total:	39329 lb
Wat/Cem:	0.501
Add:	

09:49:09 01-13-03
Bottles Empty

	Start	End	
AGG	0	0	lb
CEM	0	-31	lb

Otsego Ready Mix

2 WELLS AVENUE, ONEONTA, N.Y. 13820
PHONE (607) 432-3400

- NYS DOT APPROVED READY MIX AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME LEAVE PLANT	TIME ASSEMBLED
TIME THROW OFF	TIME DELIVERED
	12:40
MILEAGE	TIME RETURNED
	1:05
EXCESS TIME	CHECKED

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS: 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which IS an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 5 minutes. Excess time is billed at $60.00 per hour.

ACCOUNT NO.	CUSTOMER	SHIP TO	PURCHASE ORDER NO.
REG 1 1601	DARBADE CONST CORP	RICHARDSON HOME LANDFILL	01/13/03
	BOX 851	SIDNEY CENTER, NY	
LOAD NUMBER	BINGHAMTON NY 13902	JOB # 589	SHIPPING INSTRUCTIONS
02093		POUCHY	OUR TRUCK
INVOICE NUMBER	607-754-9609		SALESMAN'S NO.
79103			

DATE	TIME	PRODUCED BY	SOLD BY
01/13/03	06:50	111-RALPH MEWHORTER	101-ROB HANLON

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
10.00	YDS		6-2 5 1/2 BAG MIX		
10	EA		POLAR SET .2% NON-CHLORIDE ADDITIVE		
10	EA		HOT WATER/HEATED MATERIAL		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: _____

SIDNEY CENTER

TAXABLE	NON-TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589 LANDFILL
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
09:13:46	0002/GAR/2	10.00 yd	50.00 yd	22

	Load No.	Shipped:	Slump:	Ticket No.
01-13-03	Today	2 20.00 yd	4.00 in	77543

Load Size:	Formula:	Description:	
10.00	0002/GAR/2	5.5 BAG 4000	50.00

Batch 1 of 2 Batch size 5.00 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2060 kg	4542 lb	4519 lb	0.5	22.6	0.50
#2 STONE	4130 kg	9105 lb	9039 lb	0.7	22.7	0.50
SAND	7390 kg	16292 lb	16204 lb	0.5	406.8	6.00
CEMENT	1168 kg	2575 lb	2584 lb	-0.3		
WATER	341 L	90 G	91 G	-1.1	751.8	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4588 mL	155 fl.oz	155 fl.oz	0.0		

Batch 2 of 2 Batch size 5.00 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2060 kg	4542 lb	4519 lb	0.5	22.6	0.50
#2 STONE	4130 kg	9105 lb	9039 lb	0.7	22.7	0.50
SAND	7390 kg	16292 lb	16204 lb	0.5	406.8	6.00
CEMENT	1168 kg	2575 lb	2584 lb	-0.3		
WATER	341 L	90 G	91 G	-1.1	751.8	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4588 mL	155 fl.oz	155 fl.oz	0.0		

DryAggs:	31680 lb
Cems:	5150 lb
Waters:	2408 lb
Total:	39238 lb
Wat/Cem:	0.468
Add:	

09:26:56 01-13-03
Bottles Empty

	Start	End	
AGG	0	0	lb
CEM	0	4	lb

Otsego Ready Mix

2 WELLS AVENUE, ONEONTA, N.Y. 13820
PHONE (607) 432-3400

- NYS DOT APPROVED READY MIX
- AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME LEAVE PLANT	PLANT
6:55	
TIME ARRIVED JOB	LOADED BY
7:00	Ralph
	TRUCK NO.
	25

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS — 30 DAYS NET. SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

ACCT. NO.	CUSTOMER	SHIP TO	DATE
REG I 1801	GARRADE CONST CORP	RICHARDSON HILL CAMP ICE	01/09/03
	BOX 851	SIDNEY CENTER, NY	
P.O. NUMBER	BINGHAMTON NY 13902	JOB # 589	VIA
02093		ROCHY	OUR TRUCK
INVOICE NUMBER			CUSTOMER NO.
79091	607-754-9609		

DATE ORDERED	TIME	TAKEN BY	DELIVERED BY
01/09/03	18:43	111-RALPH MEWHORTER	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
3.00	YDS		F-2 5 1/2 BAG MIX		
3	EA		HOT WATER/HEATED MATERIAL		
3	EA		POLAR SET 2% NON-CHLORIDE ADDITIVE		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: SIDNEY CENTER

TAXABLE	NON-TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589 LANDFILL
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
07:02:39	0002/GAR/2	9.00 yd	9.00 yd	25

	Load No.	Shipped:	Slump:	Ticket No.
01-10-03	Today	1 9.00 yd	4.00 in	77532

Load Size:	Formula:	Description:	
9.00	0002/GAR/2	5.5 BAG 4000	9.00

Batch 1 of 2 Batch size 4.50 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	1900 kg	4189 lb	4079 lb	2.7	20.8	0.50
#2 STONE	3750 kg	8267 lb	8157 lb	1.4	20.3	0.50
SAND	6700 kg	14771 lb	14595 lb	1.2	368.1	6.00
CEMENT	1052 kg	2319 lb	2328 lb	-0.4		
WATER	240 L	63 G	63 G	0.0	529.8	
POLARSET	13616 mL	460 fl.oz	460 fl.oz	0.0		
DARACEM-5	4114 mL	139 fl.oz	139 fl.oz	0.0		

Batch 2 of 2 Batch size 4.50 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	1900 kg	4189 lb	4079 lb	2.7	20.8	0.50
#2 STONE	3750 kg	8267 lb	8157 lb	1.4	20.3	0.50
SAND	6660 kg	14683 lb	14595 lb	0.6	363.1	6.00
CEMENT	1056 kg	2328 lb	2328 lb	0.0		
WATER	240 L	63 G	63 G	0.0	529.8	
POLARSET	13616 mL	460 fl.oz	460 fl.oz	0.0		
DARACEM-5	4114 mL	139 fl.oz	139 fl.oz	0.0		

DryAggs:	28640 lb
Cems:	4647 lb
Waters:	1873 lb
Total:	35161 lb
Wat/Cem:	0.403
Add:	

07:11:20 01-10-03
Bottles Empty

	Start	End	
AGG	0	0	lb
CEM	0	4	lb

Otsego Ready Mix

2 WELLS AVENUE · ONEONTA, N.Y. 13820
PHONE (607) 432-3400

N.Y.S.D.O.T.
APPROVED
READY MIX
• AUTOMATED
PLANT
RADIO
DISPATCHED
• STATE
APPROVED
AGGREGATES

MP LEAV. PLT	ASSIGNED
MP ARRIVE JOB	COMPLETE
TIME ON JOB	DELIVERED BY
ACT. SET TIME	ORD. NUMBER

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS — 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

REGION	CUSTOMER	SHIP TO	PROMISE
REG 1 1601	GARBADE CONST CORP	RICHARDSON HILL LANDFILL	01/08/03
DEL NUMBER	BOX 851	SIDNEY CENTER, NY	ROUTING
02093	BINGHAMTON NY 13902	JOB # 589	OUR TRUCK
INVOICE NUMBER		POCHY	CUSTOMER NUMBER
79063	607-754-9609		

ORDER DATE	TIME	PRODUCER	SLUMP
01/08/03	10:30	111-RALPH MEWHORTER	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
8.00	YDS		P-2 5 1/2 BAG MIX		
8	EA		HOT WATER/HEATED MATERIAL		
8	EA		POLAR SET/C.NON-CHLORIDE ADDITIVE		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: _____

SIDNEY CENTER

TAXABLE	NON-TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

AGG 0 0 lb

Sold To:

Ship To:
727
BARBADE JOB 589 LANDFILL
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
11:01:00	0002/GAR/2	8.00 yd	120.00 yd	22

	Load No.	Shipped:	Slump:	Ticket No.
01-08-03	Today	1 8.00 yd	4.00 in	77509

Load Size:	Formula:	Description:	
8.00	0002/GAR/2	5.5 BAG 4000	120.00

Batch 1 of 2 Batch size 4.00 yd

-Material	-Indication-	AVDP EQU	Targets	-% Tol-	WatFree	%Moist
#1 STONE	1680 kg	3704 lb	3594 lb	3.1	0.0	0.00
#2 STONE	3310 kg	7297 lb	7187 lb	1.5	0.0	0.00
SAND	5910 kg	13029 lb	12919 lb	0.9	324.5	6.00
CEMENT	934 kg	2059 lb	2068 lb	-0.4		
WATER	209 L	55 G	56 G	-1.8	461.4	
POLARSET	12136 mL	410 fl.oz	410 fl.oz	0.0		
DARACEM-5	3670 mL	124 fl.oz	124 fl.oz	0.0		

Batch 2 of 2 Batch size 4.00 yd

-Material	-Indication-	AVDP EQU	Targets	-% Tol-	WatFree	%Moist
#1 STONE	1700 kg	3748 lb	3594 lb	4.3*	0.0	0.00
#2 STONE	3320 kg	7319 lb	7187 lb	1.8	0.0	0.00
SAND	5930 kg	13073 lb	12919 lb	1.2	325.7	6.00
CEMENT	936 kg	2064 lb	2068 lb	-0.2		
WATER	209 L	55 G	56 G	-1.8	461.4	
POLARSET	12135 mL	410 fl.oz	410 fl.oz	0.0		
DARACEM-5	3670 mL	124 fl.oz	124 fl.oz	0.0		

DryAggs:	25453 lb
Cems:	4123 lb
Waters:	1655 lb
Total:	31399 lb
Wat/Cem:	0.402
Add:	

11:09:03 01-08-03
Bottles Empty

	Start	End	
AGG	0	0	lb
CEM	0	-13	lb

Otsego Ready Mix

2 WELLS AVENUE ONEONTA, N.Y. 13820
PHONE (607) 432-3400

NYS DOT APPROVED READY MIX AUTOMATED PLANT RADIO DISPATCHED STATE APPROVED AGGREGATES

TIME DAY TRUCK	ARRIVED	LEFT
TIME	YARDS	
	7	
TIME DAY JOB	UNLOADED	
EXPIRATION TIME	DRIVER NUMBER	

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 15 minutes + 4 minutes if necessary. Time after allowed is charged at $30.00 per hour.

ACCOUNT	CUSTOMER	SHIP TO	PRODUCT
REG 1 1601	GARBADE CONST CORP	RICHARDSON HILL LANDFILL	01/07/03
	BOX 351	SIDNEY CENTER, NY	
02093	BINGHAMTON NY 13902	JOB # 589	OUR TRUCK
		POULTRY	
79042	607-754-7609		

DATE	TIME	LOAD #	DELIVERY
01/08/03	7:30	111-RALPH MEWHORTER	101 BOE HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
10.00	YDS		F-2 S 1/2 BAG MIX		
10	EA		HOT WATER/HEATED MATERIAL		
10			DOLAR SET 2% NON CHLORIDE ADDITIVE		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading, no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By:

SIDNEY CENTER

TAXABLE	NON-TAXABLE	REGION	STATE TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589 LANDFILL
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
08:23:57	0002/GAR/2	10.00 yd	120.00 yd	25

	Load No.	Shipped:	Slump:	Ticket No.
01-07-03	Today	4 40.00 yd	4.00 in	77495

Load Size:	Formula:	Description:	
10.00	0002/GAR/2	5.5 BAG 4000	120.00

Batch 1 of 2 Batch size 5.00 yd

-Material-	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2070 kg	4564 lb	4497 lb	1.5	0.0	0.00
#2 STONE	4120 kg	9083 lb	8995 lb	1.0	0.0	0.00
SAND	7370 kg	16248 lb	16160 lb	0.5	405.6	6.00
CEMENT	1168 kg	2575 lb	2584 lb	-0.3		
WATER	291 L	77 G	77 G	0.0	640.7	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4618 mL	156 fl.oz	155 fl.oz	0.6		

Batch 2 of 2 Batch size 5.00 yd

-Material-	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2070 kg	4564 lb	4497 lb	1.5	0.0	0.00
#2 STONE	4120 kg	9083 lb	8995 lb	1.0	0.0	0.00
SAND	7340 kg	16182 lb	16160 lb	0.1	401.8	6.00
CEMENT	1168 kg	2575 lb	2584 lb	-0.3		
WATER	291 L	77 G	77 G	0.0	640.7	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4588 mL	155 fl.oz	155 fl.oz	0.0		

DryAggs: 31623 lb
Cems: 5150 lb
Waters: 2089 lb
Total: 38861 lb
Wat/Cem: 0.406
Add:

08:35:23 01-07-03
Bottles Empty

	Start	End	
AGG	0	0	lb
CEM	0	-4	lb

Otsego Ready Mix

2 WELLS AVENUE, ONEONTA, N.Y. 13820
PHONE (607) 432-3400

- NYS DOT APPROVED READY MIX AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME LEAVE PLANT	ARRIVED JOB
TIME LEAVE JOB	RETURNED
DRIVER	TRUCK NBR.
	26

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (on a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

ACCOUNT	CUSTOMER	SHIP TO	DATE
REG 1 1004	GARRADE CONST CORP	RICHARDSON HILL LANDFILL	01/02/03
	BOX 851	SIDNEY CENTER, NY	
02093	BINGHAMTON NY 13902	JOB # 589	OUR TRUCK
		ROCHY	
CONTRACT NUMBER	PHONE		P.O. NUMBER
75050	607-754-3609		

DATE	TIME	SALESMAN	DELIVERED BY
01/02/03	17:35	111-RALPH MEWHORTER	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
10.00	YDS		F-2 5 1/2 BAG MIX		
10	EA		HOT WATER/HEATED MATERIAL		
10	EA		POLAR SET 2% NON-CHLORIDE ADDITIVE		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By:

SIDNEY CENTER

TAXABLE	NON-TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589 LANDFILL
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
16:39:21	0002/GAR/2	5.00 yd	120.00 yd	21

	Load No.	Shipped:	Slump:	Ticket No.
01-07-03	Today	13 116.00 yd	4.00 in	77504

Load Size:	Formula:	Description:	
5.00	0002/GAR/2	5.5 BAG 4000	120.00

Batch 1 of 1 Batch size 5.00 yd

-Material	-Indication-	- AVDP EQU -	- Targets -	-% Tol-	WatFree	%Moist
#1 STONE	2100 kg	4630 lb	4497 lb	2.9	0.0	0.00
#2 STONE	4130 kg	9105 lb	8995 lb	1.2	0.0	0.00
SAND	7410 kg	16336 lb	16160 lb	1.1	409.3	6.00
CEMENT	1168 kg	2575 lb	2584 lb	-0.3		
WATER	209 L	55 G	56 G	-1.8	461.4	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4588 mL	155 fl.oz	155 fl.oz	0.0		

DryAggs: 15927 lb
Cems: 2575 lb
Waters: 1038 lb
Total: 19706 lb
Wat/Cem: 0.403
Add:

16:45:10 01-07-03
Bottles Empty

	Start	End	
AGG	0	0	lb
CEM	0	-4	lb

Otsego Ready Mix

2 WELLS AVENUE ONEONTA, N.Y. 13820
PHONE (607) 432-3400

- NYS DOT APPROVED READY MIX
- AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME LEAVE PLANT	ASSEMBLED BY
TIME ARRIVE JOB	LOADED BY
TIME LEAVE JOB	DELIVERED BY
EXCESSIVE TIME	TRUCK NUMBER
	10

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS - 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

ACCOUNT	CUSTOMER	SHIP TO	PROMIS
REG 1 1601	BARBADE CONST CORP	#RICHARDSON HILL LANDFILL	01/03/03
JOB NUMBER	BOX 851	SIDNEY CENTER, NY	P.O. NO.
02093	BINGHAMTON NY 13902	JOB # 589	OUR TRUCK
INVOICE NUMBER		FOCNY	CUSTOMER NUMBER
79049	607-754-3609		

ORDER DATE	TIME	PROCESSED BY	SALESPERSON
01/02/03	17:34	111-RALPH MEWHORTER	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
10.00	YDS		P-C 5 1/2 BAG MIX		
10	EA		HOT WATER HEATED MATERIAL		
10	EA		POLAR SET 2% NON-CHLORIDE ADDITIVE		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: SIDNEY CENTER

TAXABLE	NON-TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589 LANDFILL
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
13:56:14	0002/GAR/2	10.00 yd	120.00 yd	20

	Load No.	Shipped:	Slump:	Ticket No.
01-07-03	Today	12 111.00 yd	4.00 in	77503

Load Size:	Formula:	Description:	
10.00	0002/GAR/2	5.5 BAG 4000	120.00

Batch 1 of 2 Batch size 5.00 yd

Material	Indication	AVDP EQU	Targets	%Tol	WatFree	%Moist
#1 STONE	2100 kg	4630 lb	4497 lb	2.9	0.0	0.00
#2 STONE	4120 kg	9083 lb	8995 lb	1.0	0.0	0.00
SAND	7340 kg	16182 lb	16160 lb	0.1	401.8	6.00
CEMENT	1168 kg	2575 lb	2584 lb	-0.3		
WATER	271 L	72 G	72 G	0.0	598.1	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4588 mL	155 fl.oz	155 fl.oz	0.0		

Batch 2 of 2 Batch size 5.00 yd

Material	Indication	AVDP EQU	Targets	%Tol	WatFree	%Moist
#1 STONE	2060 kg	4542 lb	4497 lb	1.0	0.0	0.00
#2 STONE	4120 kg	9083 lb	8995 lb	1.0	0.0	0.00
SAND	7340 kg	16182 lb	16160 lb	0.1	401.8	6.00
CEMENT	1168 kg	2575 lb	2584 lb	-0.3		
WATER	271 L	72 G	72 G	0.0	598.1	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4618 mL	156 fl.oz	155 fl.oz	0.6		

DryAggs:	31560 lb
Cems:	5150 lb
Waters:	2083 lb
Total:	38960 lb
Wat/Cem:	0.405
Add:	

14:05:49 01-07-03
Bottles Empty

	Start	End	
AGG	0	0	lb
CEM	0	-22	lb

Otsego Ready Mix

2 WELLS AVENUE ONEONTA, N.Y. 13820
PHONE (607) 432-3400

39

- NYS DOT APPROVED READY MIX AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME LEAVE PLANT	ASSEMBLED BY
TIME ARRIVE JOB	LOADED BY
	220
TIME LEAVE JOB	DELIVERED
EXCESS TIME	TRUCK NUMBER
	20

Purchaser agrees to pay All collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

ACCOUNT	CUSTOMER	SHIP TO	DATE
REG 1 1601	BARBADE CONST CORP	RICHARDSON HILL LANDFILL	01/02/03
ACCT NUMBER	BOX 851	SIDNEY CENTER, NY	P.O. NUMBER
02093	BINGHAMTON NY 13902	JOB # 589	OUR TRUCK
INVOICE NUMBER		POCHY	CUSTOMER NUMBER
79041	60/870A-9609		

ORDER DATE	TIME	PROCESSED BY	DESCRIPTION
01/02/03	17:29	111-RALPH MEWHORTER	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
10.00	YDS		F-2 5 1/2 BAG MIX		
10	EA		HOT WATER/HEATED MATERIAL		
10	EA		POLAR SET 2% NON-CHLORIDE ADDITIVE		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: _____

SIDNEY CENTER

TAXABLE	NON-TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589 LANDFILL
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
08:04:05	0002/GAR/210.00 yd		120.00 yd	20

	Load No.	Shipped:	Slump:	Ticket No.
01-07-03	Today	3 30.00 yd	4.00 in	77494

Load Size:	Formula:	Description:	
10.00	0002/GAR/2	5.5 BAG 4000	120.00

Batch 1 of 2 Batch size 5.00 yd

-Material-	-Indication-	- AVDP EQU -	- Targets -	-% Tol-	WatFree	%Moist
#1 STONE	2100 kg	4630 lb	4497 lb	2.9	0.0	0.00
#2 STONE	4110 kg	9061 lb	8995 lb	0.7	0.0	0.00
SAND	7340 kg	16182 lb	16160 lb	0.1	403.1	6.00
CEMENT	1168 kg	2575 lb	2584 lb	-0.3		
WATER	287 L	76 G	77 G	-1.3	632.3	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4588 mL	155 fl.oz	155 fl.oz	0.0		

Batch 2 of 2 Batch size 5.00 yd

-Material-	-Indication-	- AVDP EQU -	- Targets -	-% Tol-	WatFree	%Moist
#1 STONE	2090 kg	4608 lb	4497 lb	2.5	0.0	0.00
#2 STONE	4120 kg	9083 lb	8995 lb	1.0	0.0	0.00
SAND	7380 kg	16270 lb	16160 lb	0.7	406.8	6.00
CEMENT	1168 kg	2575 lb	2584 lb	-0.3		
WATER	287 L	76 G	77 G	-1.3	632.3	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4618 mL	156 fl.oz	155 fl.oz	0.6		

DryAggs: 31642 lb
Cems: 5150 lb
Waters: 2074 lb
Total: 38867 lb
Wat/Cem: 0.403
Add:

08:13:38 01-07-03
Bottles Empty

	Start	End
AGG	0	0 lb
CEM	0	-44 lb

Otsego Ready Mix

101

2 WELLS AVENUE ONEONTA, N.Y. 13820
PHONE (607) 432-3400

- NYS DOT APPROVED READY MIX AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME LEAVE PLANT	ASSIGNED TO
TIME ARRIVE JOB	DATE
TIME LEAVE JOB	RECEIVED BY
EXPRESS MIX	TRUCK NUMBER

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS - 30 DAYS NET. SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

CUSTOMER		SHIP TO		DATE
REG 1 1601	GARBADE CONST CORP	RICHARDSON HILL LANDFILL		01/02/03
P.O. NUMBER	BOX 851	SIDNEY CENTER, NY		ROUTING
02093	BINGHAMTON NY 13902	JOB # 589		OUR TRUCK
INVOICE NUMBER		BOCHY		STORE NUMBER
79048	607-754-9609			

JOB DATE	TIME	PROCESSED	SALESPERSON
01/02/03	17:34	111-RALPH MEWHORTER	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
10.00	YDS		F-2 5 1/2 BAG MIX		
10	EA		HOT WATER/HEATED MATERIAL		
10	EA		POLAR SET 2% NON-CHLORIDE ADDITIVE		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: _____

SIDNEY CENTER

TAXABLE	NON-TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589 LANDFILL
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
12:29:58	0002/GAR/210.00	yd	120.00 yd	22

	Load No.	Shipped:	Slump:	Ticket No.
01-07-03	Today	11 101.00 yd	4.00 in	77502

Load Size:	Formula:	Description:	
10.00	0002/GAR/2	5.5 BAG 4000	120.00

Batch 1 of 2 Batch size 5.00 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2090 kg	4608 lb	4497 lb	2.5	0.0	0.00
#2 STONE	4080 kg	8995 lb	8995 lb	0.0	0.0	0.00
SAND	7410 kg	16336 lb	16160 lb	1.1	415.6	6.00
CEMENT	1174 kg	2588 lb	2584 lb	0.2		
WATER	252 L	67 G	67 G	0.0	555.3	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4588 mL	155 fl.oz	155 fl.oz	0.0		

2 of 2 Batch size 5.00 yd

al	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
	2080 kg	4586 lb	4497 lb	2.0	0.0	0.00
	4080 kg	8995 lb	8995 lb	0.0	0.0	0.00
	7400 kg	16314 lb	16160 lb	1.0	414.3	6.00
	68 kg	2575 lb	2584 lb	-0.3		
	L	67 G	67 G	0.0	555.3	
	L	520 fl.oz	520 fl.oz	0.0		
		155 fl.oz	155 fl.oz	0.0		

DryAggs:	31821 lb
Cems:	5163 lb
Waters:	2107 lb
Total:	39425 lb
Wat/Cem:	0.408
Add:	

12:41:04 01-07-03
Bottles Empty

	Start	End	
AGG	0	0	lb
CEM	0	-13	lb

Otsego Ready Mix

2 WELLS AVENUE, ONEONTA, N.Y. 13820
PHONE (607) 432-3400

81

- N.Y.S.D.O.T. APPROVED READY MIX AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME LEAVE PLANT	PLANT / TRUCK
TIME ARRIVE JOB	DRIVER
	Stephen
TIME LEAVE JOB	TRUCK
EXCESS TIME	TICKET NUMBER
	28

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS: 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

ACCOUNT	CUSTOMER	SHIP TO	PROMISE
REG 1-1601	BARBADE CONST CORP	RICHARDSON HILL LANDFILL	01/03/03
CUSTOMER NUMBER / P.O. NUMBER	PO BOX 851	SIDNEY CENTER, NY	ROUTE
02093	BINGHAMTON NY 13902	JOB # 589	OUR TRUCK
INVOICE NUMBER	607-754-9609	ROCHY	SALESMAN NUMBER
79046			

ORDER DATE	TIME	PROCESSED BY	SALESMAN
01/02/03	12:33	111-RALPH MEWHORTER	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
10.00	YDS		F-2 5 1/2 BAG MIX		
10	EA		HOT WATER/HEATED MATERIAL		
10	EA		POLAR SET 2% NON-CHLORIDE ADDITIVE		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY.

Acknowledged/Received By

SIDNEY CENTER

TAXABLE	NON-TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589 LANDFILL
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
10:06:13	0002/GAR/2	10.00 yd	120.00 yd	28

	Load No.	Shipped:	Slump:	Ticket No.
01-07-03	Today	9 81.00 yd	4.00 in	77500

Load Size:	Formula:	Description:	
10.00	0002/GAR/2	5.5 BAG 4000	120.00

Batch 1 of 2 Batch size 5.00 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2070 kg	4564 lb	4497 lb	1.5	0.0	0.00
#2 STONE	4120 kg	9083 lb	8995 lb	1.0	0.0	0.00
SAND	7410 kg	16336 lb	16160 lb	1.1	410.6	6.00
CEMENT	1174 kg	2588 lb	2584 lb	0.2		
WATER	267 L	71 G	72 G	-1.4	589.5	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4588 mL	155 fl.oz	155 fl.oz	0.0		

Batch 2 of 2 Batch size 5.00 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2070 kg	4564 lb	4497 lb	1.5	0.0	0.00
#2 STONE	4120 kg	9083 lb	8995 lb	1.0	0.0	0.00
SAND	7390 kg	16292 lb	16160 lb	0.8	408.1	6.00
CEMENT	1168 kg	2575 lb	2584 lb	-0.3		
WATER	271 L	72 G	72 G	0.0	598.1	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4588 mL	155 fl.oz	155 fl.oz	0.0		

DryAggs:	31810 lb
Cems:	5163 lb
Waters:	2006 lb
Total:	38979 lb
Wat/Cem:	0.389
Add:	

10:19:00 01-07-03
Bottles Empty

	Start	End	
AGG	0	0	lb
CEM	0	-44	lb

Otsego Ready Mix

2 WELLS AVENUE, ONEONTA, N.Y. 13820
PHONE (607) 432-3400

- NYS DOT APPROVED READY MIX
- AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

60

SCALE DAY BOOK	SCALE TICKET NO.
TIME ARRIVED JOB	DISPATCHED BY
	Ralph
TIME LEAVE PLT	TRUCK NO.
	Dieter
EXCESS TIME	DELIVERY NO.

Purchaser agrees to pay ALL collection or legal fees, which become necessary if purchaser fails to meet terms.

TERMS: 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour

TRUCK	CUSTOMER	SHIP TO	DATE
REG 1 1601	GARBADE CONST CORP	RICHARDSON HILL LANDFILL	01/02/03
CUST NUMBER	BOX 851	SIDNEY CENTER, NY	TRUCK NO.
02093	BINGHAMTON NY 13902	JOB # 589	OUR TRUCK
INVOICE NUMBER		POCHY	CUSTOMER NUMBER
79044	607-754-9609		

ORDER NUMBER	TIME	PRODUCER	SALESPERSON
01/02/03	17:31	111-RALPH MEWHORTER	101-EOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
10.00	YDS		F-S 5 1/2 BAG MIX		
10	EA		HOT WATER/HEATED MATERIAL		
10	EA		POLAR SET 2% NON-CHLORIDE ADDITIVE		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: _____

SIDNEY CENTER

TAXABLE	NON TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589 LANDFILL
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
09:04:03	0002/GAR/2	10.00 yd	120.00 yd	24

	Load No.	Shipped:	Slump:	Ticket No.
01-07-03	Today	7 61.00 yd	4.00 in	77498

Load Size:	Formula:	Description:	
10.00	0002/GAR/2	5.5 BAG 4000	120.00

Batch 1 of 2 Batch size 5.00 yd

-Material-	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2080 kg	4586 lb	4497 lb	2.0	0.0	0.00
#2 STONE	4100 kg	9039 lb	8995 lb	0.5	0.0	0.00
SAND	7330 kg	16160 lb	16160 lb	0.0	403.1	6.00
CEMENT	1168 kg	2575 lb	2584 lb	-0.3		
WATER	267 L	71 G	72 G	-1.4	589.5	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4588 mL	155 fl.oz	155 fl.oz	0.0		

Batch 2 of 2 Batch size 5.00 yd

-Material-	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2060 kg	4542 lb	4497 lb	1.0	0.0	0.00
#2 STONE	4090 kg	9017 lb	8995 lb	0.2	0.0	0.00
SAND	7350 kg	16204 lb	16160 lb	0.3	406.8	6.00
CEMENT	1168 kg	2575 lb	2584 lb	-0.3		
WATER	271 L	72 G	72 G	0.0	598.1	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4618 mL	156 fl.oz	155 fl.oz	0.6		

DryAggs:	31554 lb
Cems:	5150 lb
Waters:	1998 lb
Total:	38701 lb
Wat/Cem:	0.388
Add:	

09:18:28 01-07-03
Bottles Empty

	Start	End	
AGG	0	0	lb
CEM	0	-9	lb

Otsego Ready Mix

2 WELLS AVENUE ONEONTA, N.Y. 13820
PHONE (607) 432-3400

(34)

- NYS DOT APPROVED READY MIX AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME LEAVE PLANT	TIME ARRIVE JOB	TIME UNLOADING	TIME LEAVE JOB

LOADED BY: Ralph

DRIVER: Tim

EXCESS TIME:

TRUCK NUMBER: 21

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS: 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

ACCOUNT	CUSTOMER	SHIP TO	DATE
REG 1 1601	GARBADE CONST CORP	RICHARDSON HILL LANDFILL	01/07/03
ORDERED BY	P.O. BOX 851	SIDNEY CENTER, NY	
02093	BINGHAMTON NY 13902	JOB # 589	OUR TRUCK
		POCHY	
INVOICE NUMBER			CUSTOMER NUMBER
79043	607-734-3609		

ORDERED TIME	TIME	PROCESSED BY	MIXED BY	DATE RECEIVED
01/08/03	17:30	111-RALPH MEWHORTER	101-BOB HARLEM	

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
10.00	YDS		F-2 5 1#2 BAG MIX		
10	EA		HOT WATER/HEATED MATERIAL		
10	EA		POLOR SET 2% NON-CHLORIDE ADDITIVE		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: _____

SIDNEY CENTER

TAXABLE	NON TAXABLE	ERECTION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589 LANDFILL
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
08:47:07	0002/GAR/2	10.00 yd	120.00 yd	21

	Load No.	Shipped:	Slump:	Ticket No.
01-07-03	Today	6 51.00 yd	4.00 in	77497

Load Size:	Formula:	Description:	
10.00	0002/GAR/2	5.5 BAG 4000	120.00

Batch 1 of 2 Batch size 5.00 yd

Material	Indication	AVDP EQU	Targets	% Tol	WatFree	%Moist
#1 STONE	2060 kg	4542 lb	4497 lb	1.0	0.0	0.00
#2 STONE	4080 kg	8995 lb	8995 lb	0.0	0.0	0.00
SAND	7360 kg	16226 lb	16160 lb	0.4	409.3	6.00
CEMENT	1174 kg	2588 lb	2584 lb	0.2		
WATER	291 L	77 G	77 G	0.0	640.7	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4588 mL	155 fl.oz	155 fl.oz	0.0		

Batch 2 of 2 Batch size 5.00 yd

Material	Indication	AVDP EQU	Targets	% Tol	WatFree	%Moist
#1 STONE	2070 kg	4564 lb	4497 lb	1.5	0.0	0.00
#2 STONE	4080 kg	8995 lb	8995 lb	0.0	0.0	0.00
SAND	7370 kg	16248 lb	16160 lb	0.5	410.6	6.00
CEMENT	1168 kg	2575 lb	2584 lb	-0.3		
WATER	291 L	77 G	77 G	0.0	640.7	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4610 mL	156 fl.oz	155 fl.oz	0.6		

DryAggs:	31654 lb
Cems:	5163 lb
Waters:	2101 lb
Total:	38919 lb
Wat/Cem:	0.407
Add:	

08:59:53 01-07-03
Bottles Empty

	Start	End
AGG	0	0 lb
CEM	0	35 lb

Otsego Ready Mix

2 WELLS AVENUE ONEONTA, N.Y. 13820
PHONE (607) 432-3400

91

- NYS DOT APPROVED READY MIX
- AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME LEAVE PLANT	TIME ARRIVE JOB	TIME LEAVE JOB

ASSEMBLY	YARDAGE	BATCH NUMBER
	2.00	

EXCESSIVE TIME	TRUCK NUMBER
	75

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 15 minutes. Excess time is billed at $60.00 per hour.

ACCOUNT NUMBER	CUSTOMER	SHIP TO	DATE FROM
REG 1 1601	GARBADE CONST CORP	RICHARDSON HILL LANDFILL	01/03/03
DELIVERED TO	BOX 851	SIDNEY CENTER, NY	TRUCK IN
02093	BINGHAMTON NY 13902	JOB # 589	OUR TRUCK
INVOICE NUMBER		POCHY	TEST CYLINDER NUMBER
79047	607-754-9609		

ORDER DATE	TIME	ROUTE SEQ	SALESMAN
01/02/03	17:33	111-RALPH MEWHORTER	101-BOB HARLEM

QUANTITY ORDERED	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
10.00	YDS	P-2 5 1/2 BAG MIX		
10	EA	HOT WATER/HEATED MATERIAL		
10	EA	POLAR SET 2% NON CHLORIDE ADDITIVE		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading, no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: _____

SIDNEY CENTER

TAXABLE	NON TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589 LANDFILL
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
10:25:23	0002/GAR/2	10.00 yd	120.00 yd	26

	Load No.	Shipped:	Slump:	Ticket No.
01-07-03	Today 10	91.00 yd	4.00 in	77501

Load Size:	Formula:	Description:	
10.00	0002/GAR/2	5.5 BAG 4000	120.00

Batch 1 of 2 Batch size 5.00 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2090 kg	4608 lb	4497 lb	2.5	0.0	0.00
#2 STONE	4130 kg	9105 lb	8995 lb	1.2	0.0	0.00
SAND	7390 kg	16292 lb	16160 lb	0.8	406.8	6.00
CEMENT	1168 kg	2575 lb	2584 lb	-0.3		
WATER	252 L	67 G	67 G	0.0	555.3	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4588 mL	155 fl.oz	155 fl.oz	0.0		

Batch 2 of 2 Batch size 5.00 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2080 kg	4586 lb	4497 lb	2.0	0.0	0.00
#2 STONE	4130 kg	9105 lb	8995 lb	1.2	0.0	0.00
SAND	7410 kg	16336 lb	16160 lb	1.1	409.3	6.00
CEMENT	1168 kg	2575 lb	2584 lb	-0.3		
WATER	252 L	67 G	67 G	0.0	555.3	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4588 mL	155 fl.oz	155 fl.oz	0.0		

DryAggs:	31812 lb
Cems:	5150 lb
Waters:	2094 lb
Total:	39390 lb
Wat/Cem:	0.407
Add:	

10:33:34 01-07-03
Bottles Empty

	Start	End	
AGG	0	0	lb
CEM	0	-35	lb

Otsego Ready Mix

2 WELLS AVENUE ONEONTA, N.Y. 13820
PHONE (607) 432-3400

- NYS DOT APPROVED READY MIX
- AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME TO PLANT	ASSEMBLED BY
TIME TO JOB	LOADED BY
TIME LEAVE JOB	DELIVERED BY
EXCESS TIME	TRUCK NUMBER
	22

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS – 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

ACCOUNT	CUSTOMER	SHIP TO	PO NUMBER
REG 1 1601	GARBADE CONST CORP	RICHARDSON HILL LANDFILL	01/02/03
LOT NUMBER	BOX 851	SIDNEY CENTER,NY	PLANT
02093	BINGHAMTON NY 13902	JOB # 589	OUR TRUCK
INVOICE NUMBER		ROCHY	CUSTOMER NUMBER
79040	607-754-9609		

DELIVERY DATE	LOAD NUMBER	FOREMAN	SALESPERSON
01/02/03	17:29	111-RALPH MEWHORTER	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE	TAX	TOTAL
10.00	YDS		A-2 5 1/2 BAG MIX				
10	EA		HOT WATER/HEATED MATERIAL				
10	GAL		POLAR SET 2% NON CHLORIDE ADDITIVE			T	

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: _____

SIDNEY CENTER

TAXABLE	NON-TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589 LANDFILL
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
07:41:48	0002/GAR/2	10.00 yd	120.00 yd	22

	Load No.	Shipped:	Slump:	Ticket No.
01-07-03	Today	2. 20.00 yd	4.00 in	77493

Load Size:	Formula:	Description:	
10.00	0002/GAR/2	5.5 BAG 4000	120.00

Batch 1 of 2 Batch size 5.00 yd

-Material-	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2090 kg	4608 lb	4497 lb	2.5	0.0	0.00
#2 STONE	4140 kg	9127 lb	8995 lb	1.5	0.0	0.00
SAND	7360 kg	16226 lb	16160 lb	0.4	401.8	6.00
CEMENT	1168 kg	2575 lb	2584 lb	-0.3		
WATER	291 L	77 G	77 G	0.0	640.7	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4588 mL	155 fl.oz	155 fl.oz	0.0		

Batch 2 of 2 Batch size 5.00 yd

-Material-	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2080 kg	4586 lb	4497 lb	2.0	0.0	0.00
#2 STONE	4140 kg	9127 lb	8995 lb	1.5	0.0	0.00
SAND	7380 kg	16270 lb	16160 lb	0.7	404.3	6.00
CEMENT	1168 kg	2575 lb	2584 lb	-0.3		
WATER	291 L	77 G	77 G	0.0	640.7	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4588 mL	155 fl.oz	155 fl.oz	0.0		

DryAggs:	31690 lb
Cems:	5150 lb
Waters:	2087 lb
Total:	38927 lb
Wat/Cem:	0.405
Add:	

07:50:06 01-07-03
Bottles Empty

	Start	End	
AGG	0	0	lb
CEM	0	13	lb

Otsego Ready Mix

2 WELLS AVENUE ONEONTA, NY 13820
PHONE (607) 432-3400

- NYS DOT APPROVED READY MIX
- AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

71

TIME LEAVE PLANT	TRUCK NUMBER
7 25	
TIME ARRIVE JOB	LOADED BY
	Jake
TIME LEAVE JOB	RECEIVED BY
PROCESSED TIME	CHECK NUMBER

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS: 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

ACCOUNT	CUSTOMER	SHIP TO	DATE
REG 1 1601	GARBADE CONST CORP	RICHARDSON HILL LANDFILL	01/02/03
	BOX 851	SIDNEY CENTER, NY	
LOAD DELIVERED	BINGHAMTON NY 13902	JOB # 589	HOW IN
02093		POCHY	OUR TRUCK
PHONE NUMBER	607-754-9609		PURCHASE ORDER NO.
79045			

ORDER DATE	TIME	PROCESSED BY	SALESPERSON
01/02/03	17:31	111-RALPH MEWHORTER	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
10.00	YDS		F-2 5 1/2 BAG MIX		
10	EA		HOT WATER/HEATED MATERIAL		
10	EA		DOLAR SET 2% NON-CHLORIDE ADDITIVE		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COUED CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: _____

SIDNEY CENTER

TAXABLE	NON-TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589 LANDFILL
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
09:25:22	0002/GAR/2	10.00 yd	120.00 yd	23

	Load No.	Shipped:	Slump:	Ticket No.
01-07-03	Today	8 71.00 yd	4.00 in	77499

Load Size:	Formula:	Description:	
10.00	0002/GAR/2	5.5 BAG 4000	120.00

Batch 1 of 2 Batch size 5.00 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2070 kg	4564 lb	4497 lb	1.5	0.0	0.00
#2 STONE	4100 kg	9039 lb	8995 lb	0.5	0.0	0.00
SAND	7350 kg	16204 lb	16160 lb	0.3	405.6	6.00
CEMENT	1170 kg	2579 lb	2584 lb	-0.2		
WATER	267 L	71 G	72 G	-1.4	589.5	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4588 mL	155 fl.oz	155 fl.oz	0.0		

Batch 2 of 2 Batch size 5.00 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2060 kg	4542 lb	4497 lb	1.0	0.0	0.00
#2 STONE	4130 kg	9105 lb	8995 lb	1.2	0.0	0.00
SAND	7330 kg	16160 lb	16160 lb	0.0	399.3	6.00
CEMENT	1168 kg	2575 lb	2584 lb	-0.3		
WATER	267 L	71 G	72 G	-1.4	589.5	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4588 mL	155 fl.oz	155 fl.oz	0.0		

DryAggs:	31559 lb
Cems:	5154 lb
Waters:	1984 lb
Total:	38697 lb
Wat/Cem:	0.385
Add:	

09:37:21 01-07-03
Bottles Empty

	Start	End	
AGG	0	0	lb
CEM	0	0	lb

2 WELLS AVENUE ONEONTA, N.Y. 13820
PHONE (607) 432-3400

10

- NYS DOT APPROVED READY MIX
- AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

MIXER LEFT PLANT	DISCHARGED
TIME ARRIVED JOB	LOADED BY
	Rafe
TIME LEAVE JOB	READY MIX BY
	90 Ltd
EXCESS TIME	TRUCK NUMBER
	28

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms

TERMS — 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

ACCOUNT	CUSTOMER	SHIP TO	DATE
REG 1 1601	GARBADE CONST CORP	RICHARDSON HILL LANDFILL	01/02/03
P.O. NUMBER	BOX 851	SIDNEY CENTER, NY	
02093	BINGHAMTON NY 13902	JOB # 589	OUR TRUCK
INVOICE NUMBER		POCHY	
79039	607-754-9609		

ORDER DATE	TIME	PROCESSED BY	SALESPERSON
01/02/03	17:28	111-RALPH MEWHORTER	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
10.00	YDS		F-2 5 1/2 BAG MIX		
10	EA		POLAR SET 2% NON-CHLORIDE ADDITIVE		
10	EA		BELT WATERPROOFED MATERIAL		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: _____

SIDNEY CENTER

TAXABLE	NON-TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

GARDNER JOB 389 LANDFILL
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
07:26:52	0002/GAR/2	10.00 yd	120.00 yd	22

	Load No.	Shipped:	Slump:	Ticket No.
01-07-03	Today	1 10.00 yd	4.00 in	77492

Load Size:	Formula:	Description:	
10.00	0002/GAR/2	5.5 BAG 4000	120.00

Batch 1 of 2 Batch size 5.00 yd

-Material	-Indication-	-- AVDP EQU -	-- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2090 kg	4608 lb	4497 lb	2.5	0.0	0.00
#2 STONE	4130 kg	9105 lb	8995 lb	1.2	0.0	0.00
SAND	7350 kg	16204 lb	16160 lb	0.3	401.8	6.00
CEMENT	1160 kg	2575 lb	2584 lb	-0.3		
WATER	287 L	76 G	77 G	-1.3	632.3	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4618 mL	156 fl.oz	155 fl.oz	0.6		

Batch 2 of 2 Batch size 5.00 yd

-Material	-Indication-	-- AVDP EQU -	-- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2090 kg	4608 lb	4497 lb	2.5	0.0	0.00
#2 STONE	4130 kg	9105 lb	8995 lb	1.2	0.0	0.00
SAND	7400 kg	16314 lb	16160 lb	1.0	408.1	6.00
CEMENT	1168 kg	2575 lb	2584 lb	-0.3		
WATER	291 L	77 G	77 G	0.0	640.7	
POLARSET	15392 mL	520 fl.oz	520 fl.oz	0.0		
DARACEM-5	4588 mL	155 fl.oz	155 fl.oz	0.0		

DryAggs:	31708 lb
Cems:	5150 lb
Waters:	2083 lb
Total:	38941 lb
Wat/Cem:	0.404
Add:	

07:37:17 01-07-03
Bottles Empty

	Start	End	
AGG	0	0	lb
CEM	0	4	lb

Otsego Ready Mix

2 WELLS AVENUE ONEONTA, N.Y. 13820
PHONE (607) 432-3400

- NYS DOT APPROVED READY MIX
- AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME LEAVE PLANT	SENT BY
TIME ARRIVE JOB	LOADED BY
	Ralph
TIME LEAVE JOB	DELIVERED BY
EXTRA OVERTIME	TICKET NUMBER
	28

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS 30 DAYS **NET SERVICE CHARGE** IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an **ANNUAL PERCENTAGE RATE OF 24%**. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

ACCOUNT	CUSTOMER	SHIP TO	PROMISE
REG 1 1601	GARBADE CONST CORP	RICHARDSON HILL LANDFILL	12/20/02
	BOX 851	SIDNEY CENTER, NY	
ZIP/POSTAL CODE	BINGHAMTON NY 13902	JOB # 589	ROUTE
02093		POCHY	OUR TRUCK
INVOICE NUMBER			CUSTOMER NUMBER
78966	607-754-9609		

ORDER DATE	TIME	PROCESSED BY	SALES PERSON
12/20/02	13:53	111-RALPH MEWHORTER	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
1.00	YDS		F-2 5 1/2 BAG MIX		
1	EA		HOT WATER/HEATED MATERIAL		
5	EA		SHORT LOAD CHARGE DISTANCE		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: _____

SIDNEY CENTER for Pochy

TAXABLE	NON TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
14:28:14	0002	1.00 yd	1.00 yd	28

	Load No.	Shipped:		Slump:	Ticket No.
12-20-02	Today	1	1.00 yd	4.00 in	77416

Load Size:	Formula:	Description:	
1.00	0002	5.5 BAG 4000	1.00

Batch 1 of 1 Batch size 1.00 yd

-Material-	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	410 kg	904 lb	904 lb	0.0	0.0	0.00
#2 STONE	820 kg	1808 lb	1808 lb	0.0	0.0	0.00
SAND	1540 kg	3395 lb	3219 lb	5.5*	75.6	5.00
CEMENT	230 kg	507 lb	516 lb	-1.7		
WATER	8 L	2 G	2 G	0.0	17.2	
DARAVAIR	120 mL	4 fl.oz	5 fl.oz	-11.1		
WRDA HYCO	450 mL	15 fl.oz	15 fl.oz	0.0		

DryAggs:	3220 lb
Cems:	507 lb
Waters:	218 lb
Total:	4170 lb
Wat/Cem:	0.430
Add:	

14:29:50 12-20-02
Bottles Empty

	Start	End
AGG	0	0 lb
CEM	0	9 lb

Otsego Ready Mix

2 WELLS AVENUE ONEONTA, N.Y. 13820
PHONE (607) 432-3400

- NYS DOT APPROVED READY MIX
- AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME LEAVE PLANT	ASSEMBLED
TIME ARRIVE JOB	LOADED BY
	DP
TIME LEAVE JOB	DELIVERED BY
EXCESSIVE TIME	TICKET NUMBER

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

Page 1 of 1

ACCOUNT	CUSTOMER	SHIP TO	PROMISED
REG 1 1601	GARBADE CONST CORP	RICHARDSON HILL LANDFILL	12/19/02
JOB NUMBER	BOX 851	SIDNEY CENTER, NY	PURCHASE ORDER NO.
02093	BINGHAMTON NY 13902	JOB # 589	OUR TRUCK
INVOICE NUMBER		POCHY	CUSTOMER NUMBER
78937	607-754-9609		

ORDER DATE	TIME	PROCESSED BY	SALESPERSON
12/19/02	11:44	105-D. PACKARD	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE	EXTENSION
2.00	YDS		F-2 5 1/2 BAG MIX			
2	EA		HOT WATER/HEATED MATERIAL			
4	EA		SHORT LOAD CHARGE DISTANCE			

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: _____

TAXABLE	NON-TAXABLE	SECTION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

AGG 0 0 lb

Sold To:

Ship To:
727
GARBADE JOB 589
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
13:04:18	0008	2.00 yd	2.00 yd	20

	Load No.	Shipped:	Slump:	Ticket No.
12-19-02	Today 1	2.00 yd	4.00 in	77389

Load Size:	Formula:	Description:	
2.00	0008	4000 5.5 BAG MIX ALL #1 STONE	2.00

Batch 1 of 1 Batch size 2.00 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	1420 kg	3131 lb	3109 lb	0.7	0.0	0.00
SAND	2920 kg	6437 lb	6371 lb	1.0	157.5	5.00
CEMENT	468 kg	1032 lb	1036 lb	-0.4		
WATER	39 L	10 G	10 G	0.0	85.5	
DARAVAIR	300 mL	10 fl.oz	10 fl.oz	0.0		
WRDA HYCO	930 mL	31 fl.oz	31 fl.oz	0.0		

DryAggs: 6280 lb
Cems: 1032 lb
Waters: 368 lb
Total: 7805 lb
Wat/Cem: 0.357
Add:

13:06:22 12-19-02
Bottles Empty

	Start	End	
AGG	0	0	lb
CEM	0	9	lb

Otsego Ready Mix

2 WELLS AVENUE ONEONTA, N.Y. 13820
PHONE (607) 432-3400

- NYS DOT APPROVED READY MIX
- AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME BATCHED	TIME ASSIGNED
TIME ARRIVE JOB	LOADED BY
	Ralph
TIME AT JOB	DELIVERY TIME
EXCESSIVE TIME	TICKET NUMBER
	21

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

ACCOUNT NO.	CUSTOMER	SHIP TO	PO NUMBER
REG 1 1601	GARBADE CONST CORP	RICHARDSON HILL LANDFILL	12/3 3702
JOB NUMBER	BOX 851	SIDNEY CENTER, NY	
02093	BINGHAMTON NY 13902	JOB # 589	OUR TRUCK
DRIVER NUMBER		JIM	CUSTOMER NUMBER
78849	607-754-9609		

ORDER DATE	TIME	ORDER TAKEN BY	SALESPERSON
12/12/02	19:27	111-RALPH MEWHORTER	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
10.00	CYD		FORMULA 2C/ 4500 LB		
10	EA		HOT WATER/HEATED MATERIAL		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY.

Acknowledged/Received By: SIDNEY CENTER

TAXABLE	NON-TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
06:54:16	0202/GARBA	10.00 yd	10.00 yd	21

	Load No.	Shipped:	Slump:	Ticket No.
12-13-02	Today	1 10.00 yd	4.00 in	77305

Load Size:	Formula:	Description:	
10.00	0202/GARBA	5.5 BAG W/ASH	10.00

Batch 1 of 2 Batch size 5.00 yd

-Material-	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2080 kg	4586 lb	4542 lb	1.0	0.0	0.00
#2 STONE	4150 kg	9149 lb	9083 lb	0.7	0.0	0.00
SAND	7430 kg	16380 lb	16248 lb	0.8	311.4	4.50
CEMENT	992 kg	2187 lb	2196 lb	-0.4		
FLYASH	1172 kg	2584 lb	2584 lb	0.0		
WATER	333 L	88 G	88 G	0.0	734.8	
DARAVAIR	1530 mL	52 fl.oz	52 fl.oz	0.0		
WRDA HYCO	2280 mL	77 fl.oz	77 fl.oz	0.0		

Batch 2 of 2 Batch size 5.00 yd

-Material-	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2110 kg	4652 lb	4542 lb	2.4	0.0	0.00
#2 STONE	4150 kg	9149 lb	9083 lb	0.7	0.0	0.00
SAND	7410 kg	16336 lb	16248 lb	0.5	309.5	4.50
CEMENT	992 kg	2187 lb	2196 lb	-0.4		
FLYASH	1172 kg	2584 lb	2584 lb	0.0		
WATER	333 L	88 G	88 G	0.0	734.8	
DARAVAIR	1530 mL	52 fl.oz	52 fl.oz	0.0		
WRDA HYCO	2280 mL	77 fl.oz	77 fl.oz	0.0		

DryAggs:	32096 lb
Cems:	5168 lb
Waters:	2090 lb
Total:	39354 lb
Wat/Cem:	0.405
Add:	

07:05:59 12-13-02
Bottles Empty

	Start	End	
AGG	0	0	lb
CEM	0	-4	lb

Otsego Ready Mix

2 WELLS AVENUE ONEONTA, N.Y. 13820
PHONE (607) 432-3400

- NYS DOT APPROVED READY MIX
- AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME LEFT PLANT	TRUCK NUMBER
TIME AT JOB	LOAD TYPE
	Rigid
TIME LEAVE JOB	DRIVER
	Chris
EXCESSIVE TIME	TICKET NUMBER
	28

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

ACCOUNT	CUSTOMER	SHIP TO	PROMISE
REG 1 1601	GARBADE CONST CORP	R.RICHARDSON HILL LANDFILL	12/13/02
PO NUMBER	BOX 851	SIDNEY CENTER, NY	
02093	BINGHAMTON NY 13902	JOB # 589	OUR TRUCK
INVOICE NUMBER		TAX	CUSTOMER NUMBER
78653	607-754-9609	JTD	

ORDER DATE	TIME	PROCESSED BY	SALES
12/13/02	08:48	111-RALPH MEWHORTER	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
1.00	CYD		FORMULA 22 4500 LB		
1	EA		HOT WATER/HEATED MATERIAL		
5	EA		SHORT LOAD CHARGE DISTANCE		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: SIDNEY CENTER

TAXABLE	NON-TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
09:05:48	0202/GARBA	1.00 yd	10.00 yd	28

	Load No.	Shipped:	Slump:	Ticket No.
12-13-02	Today	2 11.00 yd	4.00 in	77307

Load Size:	Formula:	Description:	
1.00	0202/GARBA	5.5 BAG W/ASH	10.00

Batch 1 of 1 Batch size 1.00 yd

Material	Indication	AVDP EQU	Targets	Tol-	WatFree	%Moist
#1 STONE	420 kg	926 lb	904 lb	2.4	0.0	0.00
#2 STONE	820 kg	1808 lb	1808 lb	0.0	0.0	0.00
SAND	1530 kg	3373 lb	3241 lb	4.1	67.4	4.50
CEMENT	196 kg	432 lb	441 lb	-2.0		
FLYASH	244 kg	538 lb	520 lb	3.4*		
WATER	43 L	11 G	12 G	-8.3	93.9	
DARAVAIR	315 mL	11 fl.oz	10 fl.oz	5.0		
WRDA HYCO	450 mL	15 fl.oz	15 fl.oz	0.0		

DryAggs: 3306 lb
Cems: 538 lb
Waters: 161 lb
Total: 4005 lb
Wat/Cem: 0.300
Add:

09:08:11 12-13-02
Bottles Empty

	Start	End
AGG	0	0 lb
CEM	0	4 lb

Otsego Ready Mix

2 WELLS AVENUE ONEONTA, N.Y. 13820
PHONE (607) 432-3400

- NYS DOT APPROVED READY MIX AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME LEAVE PLANT	ASSEMBLED BY
8:00	
TIME ARRIVE JOB	LOADED BY
9:31	Kyle
START UNLOAD JOB	DELIVERED BY
	Ron
EXCESS TIME	TRUCK NUMBER
	19

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

ACCOUNT	CUSTOMER	SHIP TO	DATE
REG 1 1601	GARBADE CONST CORP	RICHARDSON HILL LANDFILL	11/22/02
TELEPHONE NUMBER	BOX 851	SIDNEY CENTER, NY	
02093	BINGHAMTON NY 13902	JOB # 589	HOW USED
INVOICE/TICKET NO.		POOCH	OUR TRUCK
78588	607-754-9603		CUSTOMER ORDER

ORDERED BY	TIME	PRODUCT CODE	SALESPERSON
11/22/02	07:36	105-D.PACKARD	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE	
8.50	CYD		FORMULA 22 4500 LB			
8	EA		HOT WATER/HEATED MATERIAL			

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: _____

TAXABLE	NON TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
08:32:52	0202/GARBA	8.50 yd	8.50 yd	19

	Load No.	Shipped:		Slump:	Ticket No.
11-22-02	Today	1	8.50 yd	4.00 in	77061

Load Size:	Formula:	Description:	
8.50	0202/GARBA	5.5 BAG W/ASH	8.50

Batch 1 of 2 Batch size 4.25 yd

-Material-	-Indication-	- AVDP EQU -	- Targets -	-% Tol-	WatFree	%Moist
#1 STONE	1790 kg	3946 lb	3858 lb	2.3	0.0	0.00
#2 STONE	3550 kg	7826 lb	7716 lb	1.4	0.0	0.00
SAND	6300 kg	13889 lb	13845 lb	0.3	288.7	5.00
CEMENT	842 kg	1856 lb	1865 lb	-0.5		
FLYASH	1004 kg	2213 lb	2196 lb	0.8*		
WATER	302 L	80 G	80 G	0.0	666.5	
DARAVAIR	1320 mL	45 fl.oz	44 fl.oz	1.1		
WRDA HYCO	1950 mL	66 fl.oz	66 fl.oz	0.0		

Batch 2 of 2 Batch size 4.25 yd

-Material-	-Indication-	- AVDP EQU -	- Targets -	-% Tol-	WatFree	%Moist
#1 STONE	1790 kg	3946 lb	3858 lb	2.3	0.0	0.00
#2 STONE	3550 kg	7826 lb	7716 lb	1.4	0.0	0.00
SAND	6300 kg	13889 lb	13845 lb	0.3	288.7	5.00
CEMENT	842 kg	1856 lb	1865 lb	-0.5		
FLYASH	996 kg	2196 lb	2196 lb	0.0		
WATER	302 L	80 G	80 G	0.0	666.5	
DARAVAIR	1320 mL	45 fl.oz	44 fl.oz	1.1		
WRDA HYCO	1950 mL	66 fl.oz	66 fl.oz	0.0		

DryAggs: 27201 lb
Cems: 4409 lb
Waters: 1910 lb
Total: 33520 lb
Wat/Cem: 0.433
Add:

08:49:13 11-22-02
Bottles Empty

	----Start----	----End----
AGG	0	0 lb
CEM	0	0 lb

Otsego Ready Mix

2 WELLS AVENUE ONEONTA, N.Y. 13820
PHONE (607) 432-3400

- NYS DOT APPROVED READY MIX
- AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME ALLOWED	SLUMP
TIME ARRIVED JOB	LEFT PLANT
TIME STARTED	DELIVERED BY
PLACE UNLOADED	TRUCK NUMBER

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour

ACCT	CUSTOMER	SHIP TO	PROMISE
REG 1 1601	GARBADE CONST CORP	RICHARDSON HILL LANDFILL	11/21/02
JOB NUMBER	BOX 851	SIDNEY CENTER, NY	P.O. NUMBER
02093	BINGHAMTON NY 13902	DOD # 589	OUR TRUCK
INVOICE NUMBER	607-754-9609	JIM	LOAD NUMBER
78565			

ORDER DATE	TIME	PROCESSED BY	SALESPERSON
11/20/02	12:17	111-RALPH MEWHORTER	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
3.00	CYD		FORMULA 22 4500 LB		
9	EA		HOT WATER/HEATED MATERIAL		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By _____

TAXABLE	NON-TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
07:57:19	0202	9.00 yd	19.00 yd	28

	Load No.	Shipped:	Slump:	Ticket No.
11-21-02	Today	2 19.00 yd	3.50 in	77037

Load Size:	Formula:	Description:	
9.00	0202	5.5 BAG W/ASH	19.00

Batch 1 of 2 Batch size 4.50 yd

-Material	-Indication-	- AVDP EQU -	- Targets -	-% Tol-	WatFree	%Moist
#1 STONE	1870 kg	4123 lb	4057 lb	1.6	0.0	0.00
#2 STONE	3700 kg	8157 lb	8113 lb	0.5	0.0	0.00
SAND	6500 kg	14330 lb	14308 lb	0.2	237.4	4.00
CEMENT	892 kg	1967 lb	1975 lb	-0.4		
FLYASH	1058 kg	2332 lb	2328 lb	0.2		
WATER	333 L	88 G	88 G	0.0	734.8	
DARAVAIR	1050 mL	36 fl.oz	35 fl.oz	1.4		
WRDA HYCO	2070 mL	70 fl.oz	70 fl.oz	0.0		

Batch 2 of 2 Batch size 4.50 yd

-Material	-Indication-	- AVDP EQU -	- Targets -	-% Tol-	WatFree	%Moist
#1 STONE	1880 kg	4145 lb	4057 lb	2.2	0.0	0.00
#2 STONE	3700 kg	8157 lb	8113 lb	0.5	0.0	0.00
SAND	6520 kg	14374 lb	14308 lb	0.5	239.1	4.00
CEMENT	892 kg	1967 lb	1975 lb	-0.4		
FLYASH	1056 kg	2328 lb	2328 lb	0.0		
WATER	333 L	88 G	88 G	0.0	734.8	
DARAVAIR	1035 mL	35 fl.oz	35 fl.oz	0.0		
WRDA HYCO	2070 mL	70 fl.oz	70 fl.oz	0.0		

DryAggs: 28228 lb
Cems: 4661 lb
Waters: 1946 lb
Total: 34834 lb
Wat/Cem: 0.418
Add:

08:20:32 11-21-02
Bottles Empty

	Start	End
AGG	0	0 lb
CEM	0	9 lb

Otsego Ready Mix

2 WELLS AVENUE ONEONTA, N.Y. 13820
PHONE (607) 432-3400

- NYS DOT APPROVED READY MIX
- AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME LEAVE PLANT	ASSEMBLED BY
TIME ARRIVE JOB	LOADED BY
	Ralph
TIME LEAVE JOB	DELIVERED BY
EXCESS TIME	TRUCK NUMBER
	20

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS 30 DAYS NET. SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

PLANT	CUSTOMER	SHIP TO	PROMISED
REG 1 1601	GARBADE CONST CORP	RICHARDSON HILL LANDFILL	11/21/02
JOB NUMBER			LOADING
02053	BOX 851	SIDNEY CENTER, NY	
	BINGHAMTON NY 13902	JOB # 589	OUR TRUCK
INVOICE NUMBER		JIM	CUSTOMER NUMBER
78564	607-754-9609		

ORDER DATE	TIME	PROCESSED BY	SALESPERSON
11/20/02	12:16	111-RALPH MEWHORTER	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
10.00	CYD		FORMULA 22 4500 LB		
10	EA		HOT WATER/HEATED MATERIAL		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: _____

TAXABLE	NON-TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
06:00:24	0202	10.00 yd	19.00 yd	20

	Load No.	Shipped:		Slump:	Ticket No.
11-21-02	Today	1	10.00 yd	3.50 in	77029

Load Size:	Formula:	Description:	
10.00	0202	5.5 BAG W/ASH	19.00

Batch 1 of 2 Batch size 5.00 yd

-Material-	-Indication-	-- AVDP EQU --	-- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2050 kg	4519 lb	4497 lb	0.5	0.0	0.00
#2 STONE	4080 kg	8995 lb	8995 lb	0.0	0.0	0.00
SAND	7240 kg	15961 lb	15873 lb	0.6	267.9	4.00
CEMENT	992 kg	2187 lb	2196 lb	-0.4		
FLYASH	1172 kg	2584 lb	2584 lb	0.0		
WATER	353 L	93 G	93 G	0.0	777.3	
DARAVAIR	1140 mL	39 fl.oz	39 fl.oz	0.0		
WRDA HYCO	2280 mL	77 fl.oz	77 fl.oz	0.0		

Batch 2 of 2 Batch size 5.00 yd

-Material-	-Indication-	-- AVDP EQU --	-- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2050 kg	4519 lb	4497 lb	0.5	0.0	0.00
#2 STONE	4090 kg	9017 lb	8995 lb	0.2	0.0	0.00
SAND	7280 kg	16050 lb	15873 lb	1.1	270.5	4.00
CEMENT	994 kg	2191 lb	2196 lb	-0.2		
FLYASH	1176 kg	2593 lb	2584 lb	0.3		
WATER	353 L	93 G	93 G	0.0	777.3	
DARAVAIR	1155 mL	39 fl.oz	39 fl.oz	1.3		
WRDA HYCO	2280 mL	77 fl.oz	77 fl.oz	0.0		

DryAggs: 31473 lb
Cems: 5176 lb
Waters: 2093 lb
Total: 38742 lb
Wat/Cem: 0.404
Add:

06:12:57 11-21-02
Bottles Empty

	Start	End	
AGG	0	0	lb
CEM	0	0	lb

Otsego Ready Mix

2 WELLS AVENUE, ONEONTA, N.Y. 13820
PHONE (607) 432-3401

NYS DOT APPROVED READY MIX AUTOMATED PLANT
RADIO DISPATCHED
STATE APPROVED AGGREGATES

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS — 30 DAYS NET. SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Extra time is billed at $60.00 per hour.

CUSTOMER	SHIP TO
Gokboor Richardson Hill Rob 596	Super Fuel Landfill Co 27 Sidney Rd Richardson Hill

10/3/02

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
		7	FTG Home		
		7	Hotwater		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY.

Acknowledged/Received By

TAXABLE	NON-TAXABLE	TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
10:56:01	0202	7.00 yd	7.00 yd	20

	Load No.	Shipped:		Slump:	Ticket No.
10-31-02	Today	1	7.00 yd	3.50 in	76672

Load Size:	Formula:	Description:	
7.00	0202	5.5 8AG W/ASH	7.00

Batch 1 of 2 Batch size 3.50 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	1460 kg	3219 lb	3153 lb	2.1	0.0	0.00
#2 STONE	2880 kg	6349 lb	6305 lb	0.7	0.0	0.00
SAND	5110 kg	11266 lb	11089 lb	1.6	166.3	3.50
CEMENT	694 kg	1530 lb	1534 lb	-0.3		
FLYASH	828 kg	1825 lb	1808 lb	1.0*		
WATER	271 L	72 G	72 G	0.0	598.1	
DARAVAIR	810 mL	27 fl.oz	27 fl.oz	0.0		
WRDA HYCO	1620 mL	55 fl.oz	55 fl.oz	0.0		

Batch 2 of 2 Batch size 3.50 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	1440 kg	3175 lb	3153 lb	0.7	0.0	0.00
#2 STONE	2870 kg	6327 lb	6305 lb	0.3	0.0	0.00
SAND	5030 kg	11089 lb	11089 lb	0.0	161.0	3.50
CEMENT	692 kg	1526 lb	1534 lb	-0.6		
FLYASH	828 kg	1825 lb	1808 lb	1.0*		
WATER	271 L	72 G	72 G	0.0	598.1	
DARAVAIR	810 mL	27 fl.oz	27 fl.oz	0.0		
WRDA HYCO	1620 mL	55 fl.oz	55 fl.oz	0.0		

DryAggs:	22028 lb
Cems:	3651 lb
Waters:	1524 lb
Total:	27202 lb
Wat/Cem:	0.417
Add:	

11:03:28 10-31-02
Bottles Empty

	----Start	---End------
AGG	0	-22 lb
CEM	0	-4 lb

Otsego Ready Mix, Inc.

NYS DOT APPROVED
HEAVY MIX
AUTOMATED PLANT
RADIO DISPATCHED
STATE APPROVED AGGREGATES

SHIP TO

HAMTONG NY 13902

LONEY CENTER NY

DB # 589

BOCH

724-9603

10/31/02 7101 105-D PACKARD 101-BOB HARLEY

QUANTITY ORDERED	UNIT	QUANTITY	DESCRIPTION	UNIT SELL	SELL PRICE
9.00	QYD		FORMULA 22 4500 LB		
3	EA		HOT WATER/HEATED MATERIAL		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY.

Acknowledged/Received By

TAXABLE	NON-TAXABLE	COUNTY	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
08:29:03	0202	9.00 yd	9.00 yd	28

	Load No.	Shipped:		Slump:	Ticket No.
11-01-02	Today	1	9.00 yd	3.50 in	76697

Load Size:	Formula:	Description:	
9.00	0202	5.5 BAG W/ASH	9.00

Batch 1 of 2 Batch size 4.50 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	1890 kg	4167 lb	4057 lb	2.7	0.0	0.00
#2 STONE	3700 kg	8157 lb	8113 lb	0.5	0.0	0.00
SAND	6510 kg	14352 lb	14264 lb	0.6	209.5	3.50
CEMENT	892 kg	1967 lb	1975 lb	-0.4		
FLYASH	1062 kg	2341 lb	2328 lb	0.6*		
WATER	364 L	96 G	96 G	0.0	803.1	
DARAVAIR	1035 mL	35 fl.oz	35 fl.oz	0.0		
WRDA HYCO	2070 mL	70 fl.oz	70 fl.oz	0.0		

Batch 2 of 2 Batch size 4.50 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	1860 kg	4101 lb	4057 lb	1.1	0.0	0.00
#2 STONE	3690 kg	8135 lb	8113 lb	0.3	0.0	0.00
SAND	6490 kg	14308 lb	14264 lb	0.3	208.7	3.50
CEMENT	892 kg	1967 lb	1975 lb	-0.4		
FLYASH	1064 kg	2346 lb	2328 lb	0.8*		
WATER	364 L	96 G	96 G	0.0	803.1	
DARAVAIR	1035 mL	35 fl.oz	35 fl.oz	0.0		
WRDA HYCO	2070 mL	70 fl.oz	70 fl.oz	0.0		

DryAggs:	28242 lb
Cems:	4687 lb
Waters:	2025 lb
Total:	34953 lb
Wat/Cem:	0.432
Add:	

08:39:07 11-01-02
Bottles Empty

	----Start	---End----
AGG	0	0 lb
CEM	0	-4 lb

Otsego Ready Mix

2 WELLS AVENUE ONEONTA N.Y. 13820
PHONE (607) 432-3400

NYS DOT APPROVED READY MIX AUTOMATED PLANT RATIO DISPATCHED STATE APPROVED AGGREGATES

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS: 30 DAYS NET. SERVICE CHARGE is computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading 4 hours 45 minutes. Excess time is billed at $60.00 per hour.

Page 1 of 1

CUSTOMER	SHIP TO
GRADE CONST CORP	DELAWARE COUNTY LANDF
BOX 851	
BINGHAMTON NY 13902	
	POOCH
607 754 9609	746 8358

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
12.00	CYD		FORMULA 22 4500 LB		
4	EA		SHORT LOAD CHARGE DISTANCE		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery as required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By:

OFF CO 27 LEFT RICHARDSON HILL
SUPER FUND LANDFILL SIDNEY CN

TAXABLE	NON TAXABLE	TAX	AMT TAXED	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
15:31:58	0202	2.00 yd	20.00 yd	28

	Load No.	Shipped:		Slump:	Ticket No.
10-29-02	Today	3	22.00 yd	3.50 in	76625

Load Size:	Formula:	Description:	
2.00	0202	5.5 BAG W/ASH	20.00

Batch 1 of 1 Batch size 2.00 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	830 kg	1830 lb	1808 lb	1.2	0.0	0.00
#2 STONE	1650 kg	3638 lb	3616 lb	0.6	0.0	0.00
SAND	2910 kg	6415 lb	6371 lb	0.7	106.8	4.00
CEMENT	398 kg	877 lb	877 lb	0.0		
FLYASH	472 kg	1041 lb	1032 lb	0.9		
WATER	97 L	26 G	26 G	0.0	213.6	
DARAVAIR	450 mL	15 fl.oz	16 fl.oz	-3.2		
WRDA HYCO	930 mL	31 fl.oz	31 fl.oz	0.0		

DryAggs: 6309 lb
Cems: 1041 lb
Waters: 404 lb
Total: 7837 lb
Wat/Cem: 0.388
Add:

15:34:37 10-29-02
Bottles Empty

	----Start	---End------
AGG	0	0 lb
CEM	0	-18 lb

Otsego Ready Mix

2 WELLS AVENUE, ONEONTA, N.Y. 13820
PHONE (607) 432-3400

NYS DOT APPROVED READY MIX AUTOMATED PLANT
RADIO DISPATCHED
STATE APPROVED AGGREGATE

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS: 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

DATE

CUSTOMER	SHIP TO
REF # 1501	GARBADE CONST CORP	RICHARDSON HILL LANDFILL	607-979-
JOB	PO # 951	SIDNEY CENTER, NY	
02033	BINGHAMTON NY 13902	JOB # 589	OUR TRUCK
		PO/CH	
778056	607-774-9609		

DATE	TIME		
10/28/96	16:26	105-D.PACKARD	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
10.00	CYD		FORMULA 22 4500 LB		
10	EA		HOT WATER/HEATED MATERIAL		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By

RICHARDSON HILL SIDNEY CENTER

TAXABLE	NON-TAXABLE	REGULAR	OVERTIME	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

AGG 0 0 lb

Sold To:

Ship To:
727
GARBADE JOB 589
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
08:58:18	0202	10.00 yd	20.00 yd	27

	Load No.	Shipped:	Slump:	Ticket No.
10-29-02	Today	1 10.00 yd	3.50 in	76599

Load Size:	Formula:	Description:	
10.00	0202	5.5 BAG W/ASH	20.00

Batch 1 of 2 Batch size 5.00 yd

-Material-	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2040 kg	4497 lb	4497 lb	0.0	0.0	0.00
#2 STONE	4080 kg	8995 lb	8995 lb	0.0	0.0	0.00
SAND	7210 kg	15895 lb	15873 lb	0.1	265.4	4.00
CEMENT	992 kg	2187 lb	2196 lb	-0.4		
FLYASH	1172 kg	2584 lb	2584 lb	0.0		
WATER	372 L	98 G	98 G	0.0	820.1	
DARAVAIR	1155 mL	39 fl.oz	39 fl.oz	1.3		
WRDA HYCO	2280 mL	77 fl.oz	77 fl.oz	0.0		

Batch 2 of 2 Batch size 5.00 yd

-Material-	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2050 kg	4519 lb	4497 lb	0.5	0.0	0.00
#2 STONE	4080 kg	8995 lb	8995 lb	0.0	0.0	0.00
SAND	7210 kg	15895 lb	15873 lb	0.1	265.4	4.00
CEMENT	992 kg	2187 lb	2196 lb	-0.4		
FLYASH	1172 kg	2584 lb	2584 lb	0.0		
WATER	372 L	98 G	98 G	0.0	820.1	
DARAVAIR	1140 mL	39 fl.oz	39 fl.oz	0.0		
WRDA HYCO	2280 mL	77 fl.oz	77 fl.oz	0.0		

DryAggs: 31260 lb
Cems: 5168 lb
Waters: 2171 lb
Total: 38599 lb
Wat/Cem: 0.420
Add:

08:59:44 10-29-02
Bottles Empty

	Start	End	
AGG	0	0	lb
CEM	0	-4	lb

Otsego Ready Mix, LLC

2 WELLS AVENUE, ONEONTA, N.Y. 13820
PHONE (607) 432-3460

NYS DOT APPROVED READY MIX AUTOMATED PLANT
RADIO DISPATCHED
STATE APPROVED AGGREGATES

12 28			

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS 30 DAYS NET. SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 5 minutes. Extra time is billed at $60.00 per hour.

CUSTOMER			SHIP TO	
REG # 16700	GARBADE CONST CORP		RICHARDSON HILL LANDFILL	
	BOX 851		SIDNEY CENTER, NY	
002053	BINGHAMTON	NY 13902	JOB # 589	
			FOOCH	
PHONE 7806	607-754-9609			

10/28/02	16:29	105-D PACKARD	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
10.00 CYD			FORMULA 22 4500 LB		
10	EA		HOT WATER/HEATED MATERIAL		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COUED CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By:

RICHARDSON HILL SIDNEY CENTER

TAXABLE	NON-TAXABLE	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
11:35:05	0202	10.00 yd	20.00 yd	19

	Load No.	Shipped:	Slump:	Ticket No.
10-29-02	Today	2 20.00 yd	3.50 in	76609

Load Size:	Formula:	Description:	
10.00	0202	5.5 BAG W/ASH	20.00

Batch 1 of 2 Batch size 5.00 yd

-Material-	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2050 kg	4519 lb	4497 lb	0.5	0.0	0.00
#2 STONE	4080 kg	8995 lb	8995 lb	0.0	0.0	0.00
SAND	7220 kg	15917 lb	15873 lb	0.3	266.3	4.00
CEMENT	992 kg	2187 lb	2196 lb	-0.4		
FLYASH	1172 kg	2584 lb	2584 lb	0.0		
WATER	372 L	98 G	98 G	0.0	820.1	
DARAVAIR	1140 mL	39 fl.oz	39 fl.oz	0.0		
WRDA HYCO	2280 mL	77 fl.oz	77 fl.oz	0.0		

Batch 2 of 2 Batch size 5.00 yd

-Material-	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2040 kg	4497 lb	4497 lb	0.0	0.0	0.00
#2 STONE	4080 kg	8995 lb	8995 lb	0.0	0.0	0.00
SAND	7240 kg	15961 lb	15873 lb	0.6	267.9	4.00
CEMENT	992 kg	2187 lb	2196 lb	-0.4		
FLYASH	1172 kg	2584 lb	2584 lb	0.0		
WATER	372 L	98 G	98 G	0.0	820.1	
DARAVAIR	1155 mL	39 fl.oz	39 fl.oz	1.3		
WRDA HYCO	2280 mL	77 fl.oz	77 fl.oz	0.0		

DryAggs: 31345 lb
Cems: 5168 lb
Waters: 2174 lb
Total: 38687 lb
Wat/Cem: 0.421
Add:

11:46:00 10-29-02
Bottles Empty

	Start	End
AGG	0	0 lb
CEM	0	49 lb

Otsego Ready Mix

2 WELLS AVENUE, ONEONTA, N.Y. 13820
PHONE (607) 432-3400

- NYS DOT APPROVED READY MIX AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

PLANT	SALESMAN
TRUCK	DRIVER
	fm
DELIVERED	ORDER NO.
8:51	9

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS: 30 DAYS **NET SERVICE CHARGE** IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an **ANNUAL PERCENTAGE RATE OF** 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

CUSTOMER		SHIP TO	
REG 1 1601	BAREADE CONST CORP	RICHARDSON HILL LANDFILL	10/22/02
	BOX 851	SIDNEY CENTER, NY	
02093	BINGHAMTON NY 13902	JOB # 589	OUR TRUCK
		POOCH	
77915	607-754-9609		

P.O. NUMBER	TIME	LOAD NO.	BATCHER
10/22/02	08:51	105-D.PACKARD	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
5.50	CYD		FORMULA 22 4500 LB.		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: Paul O Mann

TAXABLE	NONTAXABLE	REGIONAL SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
09:48:04	0202	5.50 yd	5.50 yd	27

	Load No.	Shipped:		Slump:	Ticket No.
10-22-02	Today	1	5.50 yd	3.50 in	76457

Load Size:	Formula:	Description:	
5.50	0202	5.5 BAG W/ASH	5.50

Batch 1 of 1 Batch size 5.50 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2260 kg	4982 lb	4960 lb	0.4	0.0	0.00
#2 STONE	4510 kg	9943 lb	9921 lb	0.2	0.0	0.00
SAND	8020 kg	17681 lb	17637 lb	0.2	438.0	6.00
CEMENT	1092 kg	2407 lb	2416 lb	-0.4		
FLYASH	1294 kg	2853 lb	2844 lb	0.3		
WATER	364 L	96 G	96 G	0.0	803.1	
DARAVAIR	1260 mL	43 fl.oz	43 fl.oz	0.0		
WRDA HYCO	2520 mL	85 fl.oz	85 fl.oz	0.0		

DryAggs: 17243 lb
Cems: 2853 lb
Waters: 1241 lb
Total: 21337 lb
Wat/Cem: 0.435
Add:

09:53:43 10-22-02
Bottles Empty

	----Start	---End------
AGG	0	-22 lb
CEM	0	9 lb

Otsego Ready Mix

2 WELLS AVENUE ONEONTA N.Y. 13820
PHONE (607) 432-3400

- NYS DOT APPROVED READY MIX
- AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME LEFT PLANT	AS NEEDED
SPECIAL INSTRUCTIONS	LOADED BY
	Ralph
TIME AT JOB	RECEIVED BY
	Harding
PLANT	DRIVER
	29

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

CUSTOMER		SHIP TO	
REG 1 1601	BARBADE CONST CORP	RICHARDSON HILL LANDFILL	10/21/02
CUSTOMER NO.	BOX 851	SIDNEY CENTER, NY	
02093	BINGHAMTON NY 13902	JOB # 589	OUR TRUCK
PHONE NO.		POUCH	COMPANY TRUCK
77883	607-754-9609		

DATE	TIME	BATCHED BY	RECEIVED BY
10/19/02	09:46	105-D.PACKARD	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
8.00	CYD		FORMULA 22 4500 LB		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: Jim Dockey

TAXABLE	NON-TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
07:58:23	0202	8.00 yd	15.50 yd	29

	Load No.	Shipped:		Slump:	Ticket No.
10-21-02	Today	1	8.00 yd	3.50 in	76419

Load Size:	Formula:	Description:	
8.00	0202	5.5 BAG W/ASH	15.50

Batch 1 of 2 Batch size 4.00 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	1660 kg	3660 lb	3594 lb	1.8	0.0	0.00
#2 STONE	3290 kg	7253 lb	7187 lb	0.9	0.0	0.00
SAND	5790 kg	12765 lb	12743 lb	0.2	262.5	5.00
CEMENT	792 kg	1746 lb	1755 lb	-0.5		
FLYASH	942 kg	2077 lb	2068 lb	0.4		
WATER	275 L	73 G	73 G	0.0	606.5	
DARAVAIR	915 mL	31 fl.oz	31 fl.oz	0.0		
WRDA HYCO	1830 mL	62 fl.oz	62 fl.oz	0.0		

Batch 2 of 2 Batch size 4.00 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	1670 kg	3682 lb	3594 lb	2.5	0.0	0.00
#2 STONE	3300 kg	7275 lb	7187 lb	1.2	0.0	0.00
SAND	5820 kg	12831 lb	12743 lb	0.7	264.6	5.00
CEMENT	794 kg	1750 lb	1755 lb	-0.3		
FLYASH	944 kg	2081 lb	2068 lb	0.6*		
WATER	271 L	72 G	73 G	-1.4	598.1	
DARAVAIR	915 mL	31 fl.oz	31 fl.oz	0.0		
WRDA HYCO	1830 mL	62 fl.oz	62 fl.oz	0.0		

DryAggs:	25069 lb
Cems:	4158 lb
Waters:	1732 lb
Total:	30958 lb
Wat/Cem:	0.416
Add:	

08:05:07 10-21-02
Bottles Empty

	Start	End	
AGG	0	0	lb
CEM	0	-4	lb

15½

2 WELLS AVENUE ONEONTA, N.Y. 13820
PHONE (607) 432-3400

- NYS DOT APPROVED READY MIX
- AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME LEFT PLANT	DISPATCHED BY
9:42	
TIME LEFT JOB	LOADED BY
9:42	Ralph
TIME RETURNED	DRIVER/TRUCK
	Ron
PLANT	TICKET NUMBER
	19

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

CUSTOMER		SHIP TO	
REG 1 1601	GARBADE CONST CORP	RICHARDSON HILL LANDFILL	10/21/02
	BOX 851	SIDNEY CENTER, NY	
02093	BINGHAMTON NY 13902	JOB # 589	OUR TRUCK
		POOCH	
77884	607-754-9609		

DATE	TIME	BATCHER	PRODUCT
10/19/02	09:47	105-D.PACKARD	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
7.50	CYD		FORMULA 22 4500 LB		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: _____

Dave Sall

TAXABLE	NON-TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
09:03:23	0202	7.50 yd	15.50 yd	19

	Load No.	Shipped:	Slump:	Ticket No.
10-21-02	Today	2 15.50 yd	3.50 in	76423

Load Size:	Formula:	Description:	
7.50	0202	5.5 BAG W/ASH	15.50

Batch 1 of 2 Batch size 3.75 yd

-Material-	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	1540 kg	3395 lb	3373 lb	0.7	0.0	0.00
#2 STONE	3090 kg	6812 lb	6746 lb	1.0	0.0	0.00
SAND	5490 kg	12103 lb	12015 lb	0.7	299.5	6.00
CEMENT	742 kg	1636 lb	1645 lb	-0.5		
FLYASH	878 kg	1936 lb	1936 lb	0.0		
WATER	232 L	61 G	61 G	0.0	512.6	
DARAVAIR	855 mL	29 fl.oz	29 fl.oz	0.0		
WRDA HYCO	1710 mL	58 fl.oz	58 fl.oz	0.0		

Batch 2 of 2 Batch size 3.75 yd

-Material-	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	1530 kg	3373 lb	3373 lb	0.0	0.0	0.00
#2 STONE	3100 kg	6834 lb	6746 lb	1.3	0.0	0.00
SAND	5480 kg	12081 lb	12015 lb	0.6	297.0	6.00
CEMENT	742 kg	1636 lb	1645 lb	-0.5		
FLYASH	876 kg	1931 lb	1936 lb	-0.2		
WATER	229 L	60 G	61 G	-1.7	504.0	
DARAVAIR	855 mL	29 fl.oz	29 fl.oz	0.0		
WRDA HYCO	1710 mL	58 fl.oz	58 fl.oz	0.0		

DryAggs:	23588 lb
Cems:	3867 lb
Waters:	1613 lb
Total:	29068 lb
Wat/Cem:	0.417
Add:	

09:10:37 10-21-02
Bottles Empty

	----Start	---End----
AGG	0	0 lb
CEM	0	13 lb

Otsego Ready Mix

2 WELLES AVENUE ONEONTA, N.Y. 13820
PHONE (607) 432-3400

NYS DOT APPROVED READY MIX AUTOMATED PLANT RADIO DISPATCHED STATE APPROVED AGGREGATES

TIME LEAVE PLANT	TRUCK
	24
TIME ARRIVE JOB	LOADED BY
	Luke
TIME START UNLOAD	TICKET NO.
	2nd
TIME FINISH UNLOAD	DRIVER/TRUCK
	25

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS 30 DAYS. NET. SERVICE CHARGE IS computed by a periodic rate of 2% per month for a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

CUSTOMER		SHIP TO	
REG 1 1601	GARRADE CONST CORP	RICHARDSON HILL LANDFILL	10718702
P.O. NUMBER	BOX 851	BIDNEY CENTER, NY	
02093	BINGHAMTON NY 13902	JOB # 589	DUR TRUCK
INVOICE NUMBER		POUCH	
77856	607-754-9609		

ORDER NO.	TIME	SOLD BY	SALESPERSON
10718702	13:16	105-D.PACKARD	101=BOB HAREEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
8.00	CYD		FORMULA 22 4500 LB		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By:

CO-27

TAXABLE	NON-TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
14:32:37	0202	8.00 yd	18.50 yd	25

	Load No.	Shipped:	Slump:	Ticket No.
10-18-02	Today	2 18.50 yd	3.50 in	76400

Load Size:	Formula:	Description:	
8.00	0202	5.5 BAG W/ASH	18.50

Batch 1 of 2 Batch size 4.00 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	1660 kg	3660 lb	3594 lb	1.8	0.0	0.00
#2 STONE	3290 kg	7253 lb	7187 lb	0.9	0.0	0.00
SAND	5860 kg	12919 lb	12787 lb	1.0	320.7	6.00
CEMENT	796 kg	1755 lb	1755 lb	0.0		
FLYASH	948 kg	2090 lb	2068 lb	1.1*		
WATER	260 L	69 G	69 G	0.0	572.3	
DARAVAIR	915 mL	31 fl.oz	31 fl.oz	0.0		
WRDA HYCO	1830 mL	62 fl.oz	62 fl.oz	0.0		

Batch 2 of 2 Batch size 4.00 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	1650 kg	3638 lb	3594 lb	1.2	0.0	0.00
#2 STONE	3290 kg	7253 lb	7187 lb	0.9	0.0	0.00
SAND	5820 kg	12831 lb	12787 lb	0.3	315.7	6.00
CEMENT	792 kg	1746 lb	1755 lb	-0.5		
FLYASH	948 kg	2090 lb	2068 lb	1.1*		
WATER	260 L	69 G	69 G	0.0	572.3	
DARAVAIR	915 mL	31 fl.oz	31 fl.oz	0.0		
WRDA HYCO	1830 mL	62 fl.oz	62 fl.oz	0.0		

DryAggs:	25114 lb
Cems:	4180 lb
Waters:	1865 lb
Total:	31325 lb
Wat/Cem:	0.446
Add:	

14:38:51 10-18-02
Bottles Empty

	Start	End
AGG	0	0 lb
CEM	0	13 lb

Otsego Ready Mix

2 WELLS AVENUE, ONEONTA, N.Y. 13820
PHONE (607) 432-3400

- NYS DOT APPROVED READY MIX
- AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME	DATE	DELIVERED BY

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS: 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

Page 1 of 1

CUSTOMER	SHIP TO	
REG-1071601	GARBADE CONST. CORP	RICHARDSON HILL LANDFILL	1071B702
	BOX 851	SIDNEY CENTER, NY	
02493	BINGHAMTON NY 13902	JOB # 589	DOR TRUCK
		POOCH	
77853	607-754-9609		

10/18/02	12:48	105-D. PACKARD	141-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE	
10.50 CYD			FORMULA 22 4500 LB			

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: _____

CO. 27 RICHARDSON RD

TAXABLE	NON-TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
13:38:16	0202	10.50 yd	18.50 yd	27

	Load No.	Shipped:		Slump:	Ticket No.
10-18-02	Today	1	10.50 yd	3.50 in	76397

Load Size:	Formula:	Description:	
10.50	0202	5.5 BAG W/ASH	18.50

Batch 1 of 2 Batch size 5.25 yd

-Material	-Indication-	- AVDP	EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2140 kg	4718 lb	4718 lb	0.0	0.0	0.00	
#2 STONE	4280 kg	9436 lb	9436 lb	0.0	0.0	0.00	
SAND	7680 kg	16932 lb	16799 lb	0.8	424.3	6.00	
CEMENT	1044 kg	2302 lb	2306 lb	-0.2			
FLYASH	1240 kg	2734 lb	2716 lb	0.6*			
WATER	349 L	92 G	92 G	0.0	769.0		
DARAVAIR	1200 mL	41 fl.oz	41 fl.oz	0.0			
WRDA HYCO	2400 mL	81 fl.oz	81 fl.oz	0.0			

Batch 2 of 2 Batch size 5.25 yd

-Material	-Indication-	- AVDP	EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2140 kg	4718 lb	4718 lb	0.0	0.0	0.00	
#2 STONE	4280 kg	9436 lb	9436 lb	0.0	0.0	0.00	
SAND	7640 kg	16843 lb	16799 lb	0.3	419.3	6.00	
CEMENT	1042 kg	2297 lb	2306 lb	-0.4			
FLYASH	1240 kg	2734 lb	2716 lb	0.6*			
WATER	349 L	92 G	92 G	0.0	769.0		
DARAVAIR	1215 mL	41 fl.oz	41 fl.oz	1.2			
WRDA HYCO	2400 mL	81 fl.oz	81 fl.oz	0.0			

DryAggs: 32931 lb
Cems: 5467 lb
Waters: 2465 lb
Total: 41031 lb
Wat/Cem: 0.451
Add:

13:48:36 10-18-02
Bottles Empty

	----Start	---End------
AGG	0	0 lb
CEM	0	0 lb

Otsego Ready

2 WELLS AVENUE ONEONTA, NY 13820
PHONE (607) 432-3400

NYS DOT APPROVED READY MIX AUTOMATED PLANT - RADIO DISPATCHED STATE APPROVED AGGREGATES

LEAVE PLANT	ASSIGNED BY
METER NUMBER	BOARD NUMBER
	P&C
LEAVE JOB	DRIVER
	Matt
TRUCK NUMBER	OFFICE NUMBER
	JD

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS: 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

ACCOUNT NO.	CUSTOMER	SHIP TO	
REG 1 1601	GARBADE CONST CORP	RICHARDSON HILL LANDFILL	10/15/02
	BOX 851	SIDNEY CENTER, NY	
PURCHASE ORDER NO.	BINGHAMTON NY 13902	JOB # 589	ORDERED BY
02093		POCCHIE	OUR TRUCK
INVOICE NUMBER	507-754-9609		CUSTOMER P.O. NO.
77783			

DATE SHIPPED	TIME	PLANT	SOLD BY
10/15/02	11:11	105-D.PACKARD	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
7.00	CYD		FORMULA 22 4500 LB		

Paid Matt

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: _____

CO-27 RICHARDSON HILL TRANSFER STATION

TAXABLE	NONTAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
12:12:54	0202	7.00 yd	12.00 yd	20

	Load No.	Shipped:	Slump:	Ticket No.
10-15-02	Today	1 7.00 yd	3.50 in	76332

Load Size:	Formula:	Description:	
7.00	0202	5.5 BAG W/ASH	12.00

Batch 1 of 2 Batch size 3.50 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	1450 kg	3197 lb	3153 lb	1.4	0.0	0.00
#2 STONE	2870 kg	6327 lb	6305 lb	0.3	0.0	0.00
SAND	5060 kg	11155 lb	11089 lb	0.6	163.3	3.50
CEMENT	692 kg	1526 lb	1534 lb	-0.6		
FLYASH	830 kg	1830 lb	1808 lb	1.2*		
WATER	283 L	75 G	75 G	0.0	623.7	
DARAVAIR	810 mL	27 fl.oz	27 fl.oz	0.0		
WRDA HYCO	1650 mL	56 fl.oz	55 fl.oz	1.9		

Batch 2 of 2 Batch size 3.50 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	1450 kg	3197 lb	3153 lb	1.4	0.0	0.00
#2 STONE	2880 kg	6349 lb	6305 lb	0.7	0.0	0.00
SAND	5040 kg	11111 lb	11089 lb	0.2	161.0	3.50
CEMENT	692 kg	1526 lb	1534 lb	-0.6		
FLYASH	828 kg	1825 lb	1808 lb	1.0*		
WATER	283 L	75 G	75 G	0.0	623.7	
DARAVAIR	810 mL	27 fl.oz	27 fl.oz	0.0		
WRDA HYCO	1620 mL	55 fl.oz	55 fl.oz	0.0		

DryAggs:	21942 lb
Cems:	3655 lb
Waters:	1572 lb
Total:	27169 lb
Wat/Cem:	0.430
Add:	

12:23:21 10-15-02
Bottles Empty

	----Start	---End------
AGG	0	0 lb
CEM	0	0 lb

Sold To:

Ship To:
727
GARBADE JOB 589
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
10:05:40	0202	7.00 yd	12.00 yd	27

	Load No.	Shipped:	Slump:	Ticket No.
10-14-02	Today	1 7.00 yd	3.50 in	76294

Load Size:	Formula:	Description:	
7.00	0202	5.5 BAG W/ASH	12.00

Batch 1 of 2 Batch size 3.50 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	1450 kg	3197 lb	3153 lb	1.4	0.0	0.00
#2 STONE	2870 kg	6327 lb	6305 lb	0.3	0.0	0.00
SAND	5080 kg	11199 lb	11177 lb	0.2	232.0	5.00
CEMENT	692 kg	1526 lb	1534 lb	-0.6		
FLYASH	820 kg	1808 lb	1808 lb	0.0		
WATER	267 L	71 G	71 G	0.0	589.5	
DARAVAIR	810 mL	27 fl.oz	27 fl.oz	0.0		
WRDA HYCO	1620 mL	55 fl.oz	55 fl.oz	0.0		

Batch 2 of 2 Batch size 3.50 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	1440 kg	3175 lb	3153 lb	0.7	0.0	0.00
#2 STONE	2890 kg	6371 lb	6305 lb	1.0	0.0	0.00
SAND	5120 kg	11288 lb	11177 lb	1.0	234.1	5.00
CEMENT	692 kg	1526 lb	1534 lb	-0.6		
FLYASH	820 kg	1808 lb	1808 lb	0.0		
WATER	264 L	70 G	71 G	-1.4	580.9	
DARAVAIR	810 mL	27 fl.oz	27 fl.oz	0.0		
WRDA HYCO	1620 mL	55 fl.oz	55 fl.oz	0.0		

DryAggs:	22021 lb
Cems:	3616 lb
Waters:	1637 lb
Total:	27273 lb
Wat/Cem:	0.453
Add:	

10:16:37 10-14-02
Bottles Empty

	----Start	---End----
AGG	0	0 lb
CEM	0	57 lb

Sold To:

Ship To:
727
GARBADE JOB 589
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
12:33:12	0202	7.00 yd	12.00 yd	26

	Load No.	Shipped:	Slump:	Ticket No.
10-14-02	Today	2 14.00 yd	3.50 in	76297

Load Size:	Formula:	Description:	
7.00	0202	5.5 BAG W/ASH	12.00

Batch 1 of 2 Batch size 3.50 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	1460 kg	3219 lb	3153 lb	2.1	0.0	0.00
#2 STONE	2880 kg	6349 lb	6305 lb	0.7	0.0	0.00
SAND	5100 kg	11244 lb	11177 lb	0.6	233.1	5.00
CEMENT	698 kg	1539 lb	1534 lb	0.3		
FLYASH	820 kg	1808 lb	1808 lb	0.0		
WATER	252 L	67 G	67 G	0.0	555.3	
DARAVAIR	810 mL	27 fl.oz	27 fl.oz	0.0		
WRDA HYCO	1650 mL	56 fl.oz	55 fl.oz	1.9		

Batch 2 of 2 Batch size 3.50 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	1470 kg	3241 lb	3153 lb	2.8	0.0	0.00
#2 STONE	2880 kg	6349 lb	6305 lb	0.7	0.0	0.00
SAND	5120 kg	11288 lb	11177 lb	1.0	235.2	5.00
CEMENT	692 kg	1526 lb	1534 lb	-0.6		
FLYASH	820 kg	1808 lb	1808 lb	0.0		
WATER	252 L	67 G	67 G	0.0	555.3	
DARAVAIR	810 mL	27 fl.oz	27 fl.oz	0.0		
WRDA HYCO	1620 mL	55 fl.oz	55 fl.oz	0.0		

DryAggs: 22063 lb
Cems: 3616 lb
Waters: 1579 lb
Total: 27258 lb
Wat/Cem: 0.437
Add:

12:42:25 10-14-02
Bottles Empty

	Start	End
AGG	0	22 lb
CEM	0	0 lb

Otsego Ready Mix

2 WELLS AVENUE ONEONTA, N.Y. 13820
PHONE (607) 432-3400

- NYS DOT APPROVED READY MIX AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME LOAD LEFT PLANT | TRUCK ASSIGNED TO

TIME ARRIVED JOB | LOAD NO.
Pac

TIME LEAVE JOB | TIME UNLOADED
11:47

EXCESS TIME | TICKET NUMBER
2 5

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS — 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

Page 1 of 1

ACCOUNT	CUSTOMER	SHIP TO	DATE
REG 1 1601	GARBADE CONST CORP	RICHARDSON HILL LANDFILL	10/08/02
JOB NUMBER	BOX 851	SIDNEY CENTER, NY	METHOD
02093	BINGHAMTON NY 13902	JOB # 589	OUR TRUCK
CUSTOMER NUMBER		JIM	METHOD NO.
77619	607-754-9609		

ORDERED DATE	TIME	PRODUCT CODE	SALESPERSON
10/07/02	15:49	111-RALPH MEWHORTER	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE	TAX
3.50	CYD		FORMULA 22 4500 LB			
3	EA		SHORT LOAD CHARGE DISTANCE			

Jim Tooby

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: _____

SIDNEY CENTER OFF CO 27

TAXABLE	NONTAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY | PINK - CUSTOMER COPY | GOLD - CONTROL COPY

AGG 0 0 lb

Sold To:

Ship To:
727
GARBADE JOB 589
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
10:08:49	0202	3.50 yd	3.50 yd	20

	Load No.	Shipped:	Slump:	Ticket No.
10-08-02	Today	1 3.50 yd	3.50 in	76187

Load Size:	Formula:	Description:	
3.50	0202	5.5 BAG W/ASH	3.50

Batch 1 of 1 Batch size 3.50 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	1450 kg	3197 lb	3153 lb	1.4	0.0	0.00
#2 STONE	2870 kg	6327 lb	6305 lb	0.3	0.0	0.00
SAND	5050 kg	11133 lb	11111 lb	0.2	184.8	4.00
CEMENT	692 kg	1526 lb	1534 lb	-0.6		
FLYASH	828 kg	1825 lb	1808 lb	1.0*		
WATER	213 L	56 G	56 G	0.0	469.8	
DARAVAIR	810 mL	27 fl.oz	27 fl.oz	0.0		
WRDA HYCO	1650 mL	56 fl.oz	55 fl.oz	1.9		

DryAggs: 10948 lb
Cems: 1825 lb
Waters: 822 lb
Total: 13762 lb
Wat/Cem: 0.450
Add:

10:12:06 10-08-02
Bottles Empty

	----Start	---End------
AGG	0	0 lb
CEM	0	-9 lb

Otsego Ready Mix

2 WELLS AVENUE ONEONTA, N.Y. 13820
PHONE (607) 432-3400

- NYS DOT APPROVED READY MIX
- AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME LEAVE PLANT	TIME ARRIVED JOB
9:13	
TIME LEFT JOB	TIME RETURN PLANT
10:15	
EXCESS TIME	TRUCK NUMBER
	25

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS - 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

CUSTOMER	SHIP TO	
REG 1 1601	GARBADE CONST CORP	RICHARDSON HILL LANDFILL	10/07/02
CUSTOMER #	BOX 851	SIDNEY CENTER, NY	
02093	BINGHAMTON NY 13902	JOB # 589	OUR TRUCK
PHONE #		JIM	
77804	607-754-3609		

ORDER DATE	ORDER TIME	ROUTE SEQUENCE	SALESPERSON
10/07/02	09:05	111-RALPH MEWHORTER	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
11.00	CYD		FORMULA 22 4500 LB		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: _____

CRANE HILL TO CO 27 LEFT
RICHARDSON HILL TO LANDFILL

TAXABLE	NON TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
09:32:00	0202	11.00 yd	11.00 yd	25

	Load No.	Shipped:	Slump:	Ticket No.
10-07-02	Today	2 22.00 yd	3.50 in	76156

Load Size:	Formula:	Description:	
11.00	0202	5.5 BAG W/ASH	11.00

Batch 1 of 2 Batch size 5.50 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2260 kg	4982 lb	4960 lb	0.4	0.0	0.00
#2 STONE	4500 kg	9921 lb	9921 lb	0.0	0.0	0.00
SAND	7960 kg	17549 lb	17483 lb	0.4	293.4	4.00
CEMENT	1092 kg	2407 lb	2416 lb	-0.4		
FLYASH	1300 kg	2866 lb	2844 lb	0.8*		
WATER	450 L	119 G	119 G	0.0	991.0	
DARAVAIR	1260 mL	43 fl.oz	43 fl.oz	0.0		
WRDA HYCO	2520 mL	85 fl.oz	85 fl.oz	0.0		

Batch 2 of 2 Batch size 5.50 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2260 kg	4982 lb	4960 lb	0.4	0.0	0.00
#2 STONE	4500 kg	9921 lb	9921 lb	0.0	0.0	0.00
SAND	7930 kg	17483 lb	17483 lb	0.0	290.8	4.00
CEMENT	1092 kg	2407 lb	2416 lb	-0.4		
FLYASH	1300 kg	2866 lb	2844 lb	0.8*		
WATER	450 L	119 G	119 G	0.0	991.0	
DARAVAIR	1260 mL	43 fl.oz	43 fl.oz	0.0		
WRDA HYCO	2520 mL	85 fl.oz	85 fl.oz	0.0		

DryAggs:	34447 lb
Cems:	5732 lb
Waters:	2566 lb
Total:	42745 lb
Wat/Cem:	0.448
Add:	

09:41:58 10-07-02
Bottles Empty

	----Start	---End------
AGG	0	0 lb
CEM	0	18 lb

Otsego Ready Mix

2 WELLS AVENUE ONEONTA, N.Y. 13820
PHONE (607) 432-3400

- NYS DOT APPROVED READY MIX
- AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME LEAVE PLANT	TIME ARRIVED JOB
TIME START UNLOAD	LOADED BY
	Ralph
TIME FINISH UNLOAD	RETURNED TO PLANT
TRUCK NO.	TRUCK MILES

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS - 30 DAYS NET SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

Page 1 of 1

ORDER NO.	CUSTOMER	SHIP TO	DATE
REG 1 1601	GARBADE CONST CORP	RICHARDSON HILL LANDFILL	10/02/02
CUSTOMER NO.	BOX 851	SIDNEY CENTER, NY	
02093	BINGHAMTON NY 13902		OUR TRUCK
PURCHASE ORDER NO.		JIM	CUSTOMER NO.
77555	607-754-9609		

DELIVERY DATE	TIME	ROUTE	SALESMAN
10/02/02	18:46	111-RALPH MEWHORTER	101-BOB HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
11.00	CYD		FORMULA 22 4500 LB		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: _____

CO 32 SIDNEY CENTER RIGHT CO
27 1st LEFT RICHARDSON HILL

TAXABLE	NON TAXABLE	REGION TAX	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

AGG 0 22 lb

Sold To:

Ship To:
727
GARBADE JOB 589
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
07:18:20	0202	11.00 yd	11.00 yd	20

	Load No.	Shipped:	Slump:	Ticket No.
10-07-02	Today	1 11.00 yd	3.50 in	76155

Load Size:	Formula:	Description:	
11.00	0202	5.5 BAG W/ASH	11.00

Batch 1 of 2 Batch size 5.50 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2250 kg	4960 lb	4960 lb	0.0	0.0	0.00
#2 STONE	4510 kg	9943 lb	9921 lb	0.2	0.0	0.00
SAND	7970 kg	17571 lb	17483 lb	0.5	293.4	4.00
CEMENT	1092 kg	2407 lb	2416 lb	-0.4		
FLYASH	1290 kg	2844 lb	2844 lb	0.0		
WATER	411 L	109 G	109 G	0.0	905.7	
DARAVAIR	1245 mL	42 fl.oz	43 fl.oz	-1.2		
WRDA HYCO	2520 mL	85 fl.oz	85 fl.oz	0.0		

Batch 2 of 2 Batch size 5.50 yd

-Material	-Indication-	- AVDP EQU -	- Targets --	-% Tol-	WatFree	%Moist
#1 STONE	2250 kg	4960 lb	4960 lb	0.0	0.0	0.00
#2 STONE	4510 kg	9943 lb	9921 lb	0.2	0.0	0.00
SAND	7960 kg	17549 lb	17483 lb	0.4	292.5	4.00
CEMENT	1092 kg	2407 lb	2416 lb	-0.4		
FLYASH	1296 kg	2857 lb	2844 lb	0.5		
WATER	411 L	109 G	109 G	0.0	905.7	
DARAVAIR	1260 mL	43 fl.oz	43 fl.oz	0.0		
WRDA HYCO	2520 mL	85 fl.oz	85 fl.oz	0.0		

DryAggs: 34534 lb
Cems: 5701 lb
Waters: 2397 lb
Total: 42632 lb
Wat/Cem: 0.420
Add:

07:28:51 10-07-02
Bottles Empty

	Start	End	
AGG	0	22	lb
CEM	0	-22	lb

Otsego Ready Mix

2 WELLS AVENUE ONEONTA, N.Y. 13820
PHONE (607) 432-3400

- NYS DOT APPROVED READY MIX
- AUTOMATED PLANT
- RADIO DISPATCHED
- STATE APPROVED AGGREGATES

TIME START	LOAD	TIME FINISHED
12:10		
TIME AT JOB		TIME LEFT
12:44		1:20
PLANT		DRIVER / TRUCK
EXTRA SHIP. TIME		CHARGE TO / METHOD
		25

Purchaser agrees to pay ALL collection or legal fees which become necessary if purchaser fails to meet terms.

TERMS: 30 DAYS NET. SERVICE CHARGE IS computed by a periodic rate of 2% per month (or a minimum charge of 50 cents for balances under $25.00) which is an ANNUAL PERCENTAGE RATE OF 24%. Unloading time is 45 minutes. Excess time is billed at $60.00 per hour.

Page 1 of 1

ACCOUNT	CUSTOMER	SHIP TO	DATE
REG 1 1641	GARBADE CONST CORP	RICHARDSON HILL LANDFILL	02/03/03
PURCHASE ORDER NO.	BOX 851	SIDNEY CENTER, NY	TERMS
02093	BINGHAMTON NY 13902	JOB # 589	OUR TRUCK
INVOICE NUMBER		ROCHY	TRUCK NUMBER
79207	607-754-9609		

ORDER DATE	TIME	PRICE SET BY	ALL
02/03/03	11:44	111-RALPH MEWHORTER	101-BOE HARLEM

QUANTITY ORDERED	UNIT	QUANTITY SHIPPED	DESCRIPTION	UNIT SELL	SELL PRICE
3.50	CYD		F-C 4000 PSI .45W/C SLABS		
3	EA		HOT WATER/HEATED MATERIAL		
3	EA		POLAR SET 2% NON-CHLORIDE ADDITIVE		
2	EA		SHORT LOAD CHARGE DISTANCE		

1. Otsego Ready Mix shall not be held liable for damages to private property when delivery is required beyond the curb line. Moreover, when such delivery is required, it is the Purchaser's responsibility to provide adequate roadways and other facilities for the safe and proper unloading of trucks.
2. The Seller is not responsible for the slump, strength or quality of any concrete to which water has been added at the Purchaser's request beyond the recommendations of the American Concrete Institute.
3. Since the Seller has no control over the placing of concrete after unloading, no guarantee can be made of the finished work in which it is used.
4. The Purchaser's claims and exceptions shall be deemed waived unless made in writing within four days of time of delivery. The Seller shall be given full opportunity to investigate them but the Seller's liability shall in no event exceed the purchase price of the materials against which the claim is made.

WARNING: "CONTACT WITH THIS PRODUCT WITHOUT PROTECTIVE CLOTHING COULD CAUSE BODILY INJURY. EVERY EFFORT SHOULD BE TAKEN TO AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN. IN CASE OF CONTACT WITH SKIN OR EYES, FLUSH THOROUGHLY WITH WATER. KEEP CHILDREN AWAY."

Acknowledged/Received By: _____

SIDNEY CENTER

TAXABLE	NON TAXABLE	REGION	SALES TAX	TOTAL

WHITE - OFFICE COPY PINK - CUSTOMER COPY GOLD - CONTROL COPY

Sold To:

Ship To:
727
GARBADE JOB 589 LANDFILL
RICHARDSON HILL LANDFILL
SIDNEY CENTER

Started:	Mix:	Amt:	Ordered:	Truck:
12:18:45	0009/P2W/A	3.50 yd	3.50 yd	25

	Load No.	Shipped:		Slump:	Ticket No.
02-03-03	Today	1	3.50 yd	4.00 in	77639

Load Size:	Formula:	Description:	
3.50	0009/P2W/A	4000 6 BAG MIX W/AIR	3.50

Batch 1 of 1 Batch size 3.50 yd

-Material	-Indication-	- AVDP EQU -	- Targets ---	-% Tol-	WatFree	XMoist
#1 STONE	1450 kg	3219 lb	3175 lb	1.4	16.0	0.50
#2 STONE	2900 kg	6393 lb	6349 lb	0.7	15.8	0.50
SAND	5090 kg	11222 lb	11155 lb	0.6	229.9	5.00
CEMENT	898 kg	1980 lb	1975 lb	0.2		
WATER	252 L	67 G	67 G	0.0	555.3	
DARAVAIR	465 mL	16 fl.oz	16 fl.oz	0.0		
POLARSET	11544 mL	390 fl.oz	390 fl.oz	0.0		

DryAggs: 10960 lb
Cems: 1980 lb
Waters: 817 lb
Total: 13757 lb
Wat/Cem: 0.413
Add:

12:21:38 02-03-03
Bottles Empty

	Start	End	
AGG	0	0	lb
CEM	0	9	lb

F-4

CONCRETE TEST RESULTS

CME Associates, Inc.

Construction Materials Evaluation

LABORATORY COMPRESSION TEST REPORT
STANDARD CYLINDERS 6" x 12"

Client: Parsons
Project & Location: Richardson Hill Landfill

Report No.: 20013C-02-1002
Set I.D.: 6897 **Set 1 of 2**

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	October 7, 2002	**Time Sampled:**		**No. of Cylinders Cast:**	3
Sampled By:	CLIENT	**Sampled From*:**		**Slump (nearest ¼ in.):**	
Truck No.:	1			**Air Content (%):**	
Ticket No.:				**Unit Weight (pcf):**	
Quantity of Load:		**cubic yards**		**Concrete Temperature:**	°F
Water Added at Site:		**gallons**		**Ambient Temperature:**	°F
Contractor:	Garbade			**Weather Conditions:**	
Supplier		**Mix No.:**		**Admixture Added at Site:**	
				Required Strength at 28 days (psi):	**4000**
Location of Placement:	Footings				
Where are Cylinders Stored On-Site:					

RESULTS OF LAB TESTING

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.033	28.59	97,000	**3390**		
28			146,000	**5140**		
28			142,000	**5000**		

Additinnal Comments:

CME ASSOCIATES, INC. WILL NOT ACCEPT ANY LIABILITY AS A RESULT OF DATA INTERPRETATION. UNLESS OTHERWISE NOTED, THE ABOVE INFORMATION WAS SUPPLIED BY THE CLIENT OR CONTRACTOR AND IS REPORTED AT THEIR REQUEST. NO REPRESENTATION AS TO THE ACCURACY OF INFORMATION SUPPLIED BY OTHERS IS INTENDED OR MADE.

The cylinders were initially cured 1 day in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for **all** testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

AASHTO R18

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.

Construction Materials Evaluation

LABORATORY COMPRESSION TEST REPORT
STANDARD CYLINDERS 6" x 12"

Client: Parsons
Project & Location: Richardson Hill Landfill

Report No.: 20013C-02-1002
Set I.D.: 6897 **Set** 1 **of** 2

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	October 7, 2002	**Time Sampled:**		**No. of Cylinders Cast:**	3
Sampled By:	CLIENT	**Sampled From*:**		**Slump (nearest ¼ in.):**	
Truck No.:	1			**Air Content (%):**	
Ticket No.:				**Unit Weight (pcf):**	
Quantity of Load:		**cubic yards**		**Concrete Temperature:**	°F
Water Added at Site:		**gallons**		**Ambient Temperature:**	°F
Contractor:	Garbade			**Weather Conditions:**	
Supplier		**Mix No.:**		**Admixture Added at Site:**	
				Required Strength at 28 days (psi):	4000
Location of Placement:	Footings				
Where are Cylinders Stored On-Site:					

RESULTS OF LAB TESTING

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.033	28.59	97,000	**3390**		
28						
28						

Additional Comments:

CME ASSOCIATES, INC. WILL NOT ACCEPT ANY LIABILITY AS A RESULT OF DATA INTERPRETATION. UNLESS OTHERWISE NOTED, THE ABOVE INFORMATION WAS SUPPLIED BY THE CLIENT OR CONTRACTOR AND IS REPORTED AT THEIR REQUEST. NO REPRESENTATION AS TO THE ACCURACY OF INFORMATION SUPPLIED BY OTHERS IS INTENDED OR MADE.

The cylinders were initially cured 1 day in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for all testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

AASHTO R18

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.

Construction Materials Evaluation

LABORATORY COMPRESSION TEST REPORT
STANDARD CYLINDERS 6" x 12"

Client: Parsons
Project & Location: Richardson Hill Landfill

Report No.: 20013C-02-1002
Set I.D.: 6898 **Set** 2 **of** 2

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	October 7, 2002	**Time Sampled:**		**No. of Cylinders Cast:**	3
Sampled By:	CLIENT	**Sampled From*:**		**Slump (nearest ¼ in.):**	
Truck No.:	2			**Air Content (%):**	
Ticket No.:				**Unit Weight (pcf):**	
Quantity of Load:		**cubic yards**		**Concrete Temperature:**	°F
Water Added at Site:		**gallons**		**Ambient Temperature:**	°F
Contractor:	Garbade			**Weather Conditions:**	
Supplier		**Mix No.:**		**Admixture Added at Site:**	
				Required Strength at 28 days (psi):	**4000**
Location of Placement:	Footings				
Where are Cylinders Stored On-Site:					

RESULTS OF LAB TESTING

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.033	28.59	84,500	**2960**		
28	6.014	28.41	137,000	**4820**		
28	6.014	28.41	142,000	**5000**		

Additional Comments:

CME ASSOCIATES, INC. WILL NOT ACCEPT ANY LIABILITY AS A RESULT OF DATA INTERPRETATION. UNLESS OTHERWISE NOTED, THE ABOVE INFORMATION WAS SUPPLIED BY THE CLIENT OR CONTRACTOR AND IS REPORTED AT THEIR REQUEST. NO REPRESENTATION AS TO THE ACCURACY OF INFORMATION SUPPLIED BY OTHERS IS INTENDED OR MADE.

The cylinders were initially cured 1 day in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for **all** testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

AASHTO R18

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.

Construction Materials Evaluation

LABORATORY COMPRESSION TEST REPORT
STANDARD CYLINDERS 6" x 12"

Client: Parsons
Project & Location: Richardson Hill Landfill

Report No.: 20013C-02-1002
Set I.D.: 6898 **Set** 2 **of** 2

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	October 7, 2002	**Time Sampled:**		**No. of Cylinders Cast:**	3
Sampled By:	CLIENT	**Sampled From*:**		**Slump (nearest ¼ in.):**	
Truck No.:	2			**Air Content (%):**	
Ticket No.:				**Unit Weight (pcf):**	
Quantity of Load:		**cubic yards**		**Concrete Temperature:**	°F
Water Added at Site:		**gallons**		**Ambient Temperature:**	°F
Contractor:	Garbade			**Weather Conditioos:**	
Supplier		**Mix No.:**		**Admixture Added at Site:**	
				Required Strength at 28 days (psi):	4000
Location of Placement:	Footings				
Where are Cylinders Stored On-Site:					

RESULTS OF LAB TESTING

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.033	28.59	84,500	2960		
28						
28						

Additional Comments:

CME ASSOCIATES, INC. WILL NOT ACCEPT ANY LIABILITY AS A RESULT OF DATA INTERPRETATION. UNLESS OTHERWISE NOTED, THE ABOVE INFORMATION WAS SUPPLIED BY THE CLIENT OR CONTRACTOR AND IS REPORTED AT THEIR REQUEST. NO REPRESENTATION AS TO THE ACCURACY OF INFORMATION SUPPLIED BY OTHERS IS INTENDED OR MADE.

The cylinders were initially cured 1 day in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for **all** testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

AASHTO R18

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.
Construction Materials Evaluation

CONCRETE INSPECTOR FIELD & LABORATORY TEST REPORT

Client: Parsons
Project & Location: Richardson Hill Landfill

Report No.: 20013C-03-1002
Set I.D.: 8507 **Set** 1 **of** 1

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	October 14, 2002	**Time Sampled:**		**No. of Cylinders Cast:**	4
Sampled By:	C. May	**Sampled From*:**		**Slump (nearest ¼ in.):**	4.0
Truck No.:	27			**Air Content (%):**	4.5
Ticket No.:	76294			**Unit Weight (pcf):**	
Quantity of Load:	7.0	**cubic yards**		**Concrete Temperature:**	60 °F
Water Added at Site:		**gallons**		**Ambient Temperature:**	50 °F
Contractor:	Garbade			**Weather Conditions:**	Sunny
Supplier	Oswego Ready Mix	**Mix No.:**	02093	**Admixture Added at Site:**	
				Required Strength at 28 days (psi):	**4000**
Location of Placement:	Footings; Line D 4.5-3				
Where are Cylinders Stored On-Site:	Next to location of placement				

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31 and tested in accordance with ASTM C-39.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.019	28.46	109,000	**3830**	Line D 3.5 - 4	
28	6.013	28.40	151,000	**5320**		
28	6.013	28.40	147,000	**5180**		
28	6.013	28.40	161,000	**5670**		

Additional Comments: Total yards placed – 12.00

*PP = Point of Placement; TD = Truck Chute Discharge.

The tests were performed in compliance with the specifications given above unless noted below:

☐ The concrete was not sampled in accordance with ASTM C-172,

☑ The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured 1 day in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for **all** testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

CME Associates, Inc.
Construction Materials Evaluation

CONCRETE INSPECTOR FIELD & LABORATORY TEST REPORT

Client: Parsons
Project & Location: Richardson Hill Landfill

Report No.: 20013C-03-1002
Set I.D.: 8507 **Set** 1 **of** 1

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	October 14, 2002	**Time Sampled:**		**No. of Cylinders Cast:**	4
Sampled By:	C. May	**Sampled From*:**		**Slump (nearest ¼ in.):**	4.0
Truck No.:	27			**Air Content (%):**	4.5
Ticket No.:	76294			**Unit Weight (pcf):**	
Quantity of Load:	7.0	**cubic yards**		**Concrete Temperature:**	60 °F
Water Added at Site:		**gallons**		**Ambient Temperature:**	50 °F
Contractor:	Garbade			**Weather Conditions:**	Sunny
Supplier	Oswego Ready Mix	**Mix No.:**	02093	**Admixture Added at Site:**	
				Required Strength at 28 days (psi):	**4000**

Location of Placement:	Footings; Line D 4.5-3
Where are Cylinders Stored On-Site:	Next to location of placement

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31 and tested in accordance with ASTM C-39.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.019	28.46	109,000	**3830**	Line D 3.5 - 4	
28						
28						
Hold						

Additional Comments: Total yards placed – 12.00

*PP = Point of Placement; TD = Truck Chute Discharge.

The tests were performed in compliance with the specifications given above unless noted below:

☐ The concrete was not sampled in accordance with ASTM C-172,
☑ The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured 1 day in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for **all** testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.
Construction Materials Evaluation

CONCRETE INSPECTOR FIELD & LABORATORY TEST REPORT

Client: Parsons
Project & Location: Richardson Hill Landfill

Report No.: 20013C-04-1002
Set I.D.: 6695 **Set** 1 **of** 1

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	October 18 2002	**Time Sampled:**	2:40pm	**No. of Cylinders Cast:**	4	
Sampled By:	T. Wheeler	**Sampled From*:**	TD	**Slump (nearest ¼ in.):**	4.25	
Truck No.:	27			**Air Content (%):**	4.2	
Ticket No.:	77853			**Unit Weight (pcf):**		
Quantity of Load:	10.5	**cubic yards**		**Concrete Temperature:**	64	°F
Water Added at Site:	5	**gallons**		**Ambient Temperature:**	51	°F
Contractor:	Garhade			**Weather Cooditions:**	Cloudy	
Supplier	Oswego Ready Mix	**Mix No.:**	02093	**Admixture Added at Site:**		
				Required Strength at 28 days (psi):	**4000**	
Location of Placement:	Footer					
Where are Cylinders Stored On-Site:	Barn					

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31 and tested in accordance with ASTM C-39.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.020	28.46	97,000	**3410**	Mid Point 1-Ab to Mid Point 2-D	85%
28	6.017	28.44	134,000	**4710**		
28	6.017	28.44	141,000	**4960**		
28	6.017	28.44	144,000	**5060**		

Additional Comments: Test results were reported to Ed Rudy of Parsons.

*PP = Point of Placement; TD = Truck Chute Discharge.

The tests were performed in compliance with the specifications given above unless noted below:

- ☐ The concrete was not sampled in accordance with ASTM C-172,
- ☑ The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured 3 days in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for **all** testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

CME Associates, Inc.

Construction Materials Evaluation

CONCRETE INSPECTOR FIELD & LABORATORY TEST REPORT

Client: Parsons
Project & Location: Richardson Hill Landfill

Report No.: 20013C-04-1002
Set I.D.: 6695 **Set** 1 **of** 1

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	October 18 2002	**Time Sampled:**	2:40pm	**No. of Cylinders Cast:**	4
Sampled By:	T. Wheeler	**Sampled From*:**	TD	**Slump (nearest ¼ in.):**	4.25
Truck No.:	27			**Air Content (%):**	4.2
Ticket No.:	77853			**Unit Weight (pcf):**	
Quantity of Load:	10.5	**cubic yards**		**Concrete Temperature:**	64 °F
Water Added at Site:	5	**gallons**		**Ambient Temperature:**	51 °F
Contractor:	Garbade			**Weather Conditions:**	Cloudy
Supplier	Oswego Ready Mix	**Mix No.:**	02093	**Admixture Added at Site:**	
				Required Streogth at 28 days (psi):	**4000**
Location of Placement:	Footer				
Where are Cylinders Stored On-Site:	Barn				

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31 and tested in accordance with ASTM C-39.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.020	28.46	97,000	**3410**	Mid Point 1-Ab to Mid Point 2-D	85%
28						
28						
Hold						

Additional Comments: Test results were reported to Ed Rudy of Parsons.

*PP = Point of Placement; TD = Truck Chute Discharge.

The tests were performed in compliance with the specifications given above unless noted below:

- [ ] The concrete was not sampled in accordance with ASTM C-172,
- [√] The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured 3 days in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for **all** testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9178

CME Associates, Inc.

PLEASE ✓ OFFICE LOCATION Ithaca

ALBANY (518) 459-2394	BUFFALO (716) 877-9577	ELMIRA (607) 739-4033	ROCHESTER (716) 254-8740	SYRACUSE (315) 668-3868
☐	☐	☑	☐	☐

The Technician completing this form must fill in one form for each different set of cylinders. The Set I.D. Number must be written on each cylinder mold of the set this form represents (cross out any other I.D. marking except yours). Slump, air content and concrete temperature tests are required to be performed when fabricating cylinders. For your *Sampled From* location, please use PP (Point of Placement) or TD (Truck Chute Discharge).

Client: ~~RHRL~~ Parsons | **Job No.:** 20013

Project & Location: RHRL / Sidney Center | **Set I.D.** 6695 | **Set** 1 **of** 1

FIELD DATA AND TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled: 10/18/02 Time Sampled: 2:40 am/(pm)	No. of Cylinders Cast: 4
Sampled By: TW Sampled From: ~~T~~ TD	Slump (nearest 1/4 in.): 4 1/4 inches
Truck No.: 27	Air Content: 4.2 % Unit Weight: pcf
Ticket No.: 77853	Concrete Temperature: 64 °F
Quantity of Load: 10.5 cu. yds.	Ambient Temperature: 50.5 °F
Water Added at Site: 5 gallons	Weather Conditions: Partly cloudy
Contractor: Garbade	Admixture Added at Site:
Supplier: Otsego Readymix Mix. No.: 02093	Required Strength at 28 Days: 4000 psi
Location of Placement: Footer	
Where are Cylinders Stored On-Site: Barn	

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7					Mid Point.	
28					1-A to Mid	
28					Pait 2-D	
H						

Additional Comments: Test Results Reported to Ed Rudy of Parsons

The tests were performed in compliance with the specifications given above unless noted below:
Put a ✓

☐ The concrete was not sampled in accordance with ASTM C-172,

☐ The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured _____ days in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for all testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

CME Associates, Inc.
Construction Materials Evaluation

CONCRETE INSPECTOR FIELD & LABORATORY TEST REPORT

Report No.: 20013C-05-1002
Client: Parsons
Project & Location: Richardson Hill Landfill
Set I.D.: 09528 **Set** 1 **of** 2

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	October 21, 2002	**Time Sampled:**	am	**Nn. of Cylinders Cast:**	4		
Sampled By:	C. Little	**Sampled From*:**	TD	**Slump (nearest ¼ in.):**	5.5		
Truck No.:				**Air Coatent (%):**	4.8		
Ticket No.:				**Unit Weight (pcf):**			
Quantity nf Load:	10	**cubic yards**		**Concrete Temperature:**	61	°F	
Water Added at Site:	4.0	**gallons**		**Ambient Temperature:**	40	°F	
Contractor:	Garbade			**Weather Conditinns:**	Sunny		
Supplier	Oseego	**Mix No.:**	02093	**Admixture Added at Site:**			
				Required Strength at 28 days (psi):	**4000**		
Location nf Placement:	North Side Footers						
Where are Cylinders Stored On-Site:	Next to location of placement						

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31 and tested in accordance with ASTM C-39.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.014	28.48	100,000	**3520**	Eastern most corner 15' North	
28	6.013	28.38	140,000	**4933**		
28	6.013	28.38	140,000	**4933**		
28	6.013	28.38	130,000	**4580**		

Additional Comments: Total yards placed – 12.00

*PP = Point of Placement; TD = Truck Chute Discharge.

The tests were performed in compliance with the specifications given above unless noted below:

☐ The concrete was not sampled in accordance with ASTM C-172,

☑ The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured 1 day in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for **all** testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

AASHTO R18

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.
Construction Materials Evaluation

CONCRETE INSPECTOR FIELD & LABORATORY TEST REPORT

Client: Parsons
Report No.: 20013C-05-1002
Project & Location: Richardson Hill Landfill
Set I.D.: 09528 **Set** 1 **of** 2

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	October 21, 2002	**Time Sampled:**	am	**No. of Cylinders Cast:**	4	
Sampled By:	C. Little	**Sampled From*:**	TD	**Slump (nearest ¼ in.):**	5.5	
Truck No.:				**Air Content (%):**	4.8	
Ticket No.:				**Unit Weight (pcf):**		
Quantity of Load:	10	**cubic yards**		**Concrete Temperature:**	61	°F
Water Added at Site:	4.0	**gallons**		**Ambient Temperature:**	40	°F
Contractor:	Garbade			**Weather Conditions:**	Sunny	
Supplier	Oseego	**Mix No.:**	02093	**Admixture Added at Site:**		
				Required Strength at 28 days (psi):	**4000**	
Location of Placement:	North Side Footers					
Where are Cylinders Stored On-Site:	Next to location of placement					

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31 and tested in accordance with ASTM C-39.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.014	28.48	100,000	**3520**	Eastern most corner 15' North	
28						
28						
Hold						

Additional Comments: Total yards placed – 12.00

*PP = Point of Placement; TD = Truck Chute Discharge.

The tests were performed in compliance with the specifications given above unless noted below:

- [ ] The concrete was not sampled in accordance with ASTM C-172,
- [√] The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured 1 day in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for **all** testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

AASHTO R18

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.

Construction Materials Evaluation

CONCRETE INSPECTOR FIELD & LABORATORY TEST REPORT

Client: Parsons

Report No.: 20013C-06-1102

Project & Location: Richardson Hill Landfill

Set I.D.: 09528 **Set** 1 **of** 1

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	November 5, 2002	**Time Sampled:**	12:30pm	**No. of Cylinders Cast:**	4	
Sampled By:	T. Wheeler	**Sampled From*:**	TD	**Slump (nearest ¼ in.):**	4.5	
Truck No.:	20			**Air Content (%):**	3.0	
Ticket No.:	76763			**Unit Weight (pcf):**		
Quantity of Load:	9	**cubic yards**		**Concrete Temperature:**	63	°F
Water Added at Site:	8	**gallons**		**Ambient Temperature:**	43	°F
Contractor:	Garbade Construction			**Weather Conditions:**	Cloudy	
Supplier	Ostego Ready mix	**Mix No.:**	02093	**Admixture Added at Site:**		
				Required Strength at 28 days (psi):	**4500**	
Location of Placement:	Wall – Exterior Contaminate Containment					
Where are Cylinders Stored On-Site:	In Barn					

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31 and tested in accordance with ASTM C-39.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.012	28.39	125,000	**4400**	Tank T-1, wall west side	
28	6.012	28.39	166,000	**5850**		
28	6.012	28.39	168,000	**5920**		
28	6.012	28.39	167,000	**5882**		

Additional Comments: Test Results reported to Ed Rudy.

*PP = Point of Placement; TD = Truck Chute Discharge.

The tests were performed in compliance with the specifications given above unless noted below:

☐ The concrete was not sampled in accordance with ASTM C-172,

☑ The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured 1 day in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for all testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

AAP AASHTO R18

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.
Construction Materials Evaluation

CONCRETE INSPECTOR FIELD & LABORATORY TEST REPORT

Client: Parsons
Project & Location: Richardson Hill Landfill

Report No.: 20013C-06-1102
Set I.D.: 09528 **Set** 1 **of** 1

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	November 5, 2002	**Time Sampled:**	12:30pm	**No. of Cylinders Cast:**	4
Sampled By:	T. Wheeler	**Sampled From*:**	TD	**Slump (nearest ¼ in.):**	4.5
Truck No.:	20			**Air Content (%):**	3.0
Ticket No.:	76763			**Unit Weight (pcf):**	
Quantity of Load:	9	**cubic yards**		**Concrete Temperature:**	63 °F
Water Added at Site:	8	**gallons**		**Ambient Temperature:**	43 °F
Contractor:	Garbade Construction			**Weather Conditions:**	Cloudy
Supplier	Ostego Ready mix	**Mix No.:**	02093	**Admixture Added at Site:**	
				Required Strength at 28 days (psi):	**4500**
Location of Placement:	Wall – Exterior Contaminate Containment				
Where are Cylinders Stored On-Site:	In Barn				

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31 and tested in accordance with ASTM C-39.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.012	28.39	125,000	**4400**	Tank T-1, wall west side	
28						
28						
Hold						

Additional Comments: Test Results reported to Ed Rudy.

*PP = Point of Placement; TD = Truck Chute Discharge.

The tests were performed in compliance with the specifications given above unless noted below:

☐ The concrete was <u>not</u> sampled in accordance with ASTM C-172,

☑ The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured 1 day in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for all testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

CME Associates, Inc.

PLEASE ✓ OFFICE LOCATION Ithaca

ALBANY (518) 459-2394	BUFFALO (716) 877-9577	ELMIRA (607) 739-4033	ROCHESTER (716) 254-8740	SYRACUSE (315) 668-3868
☐	☐	☑	☐	☐

The Technician completing this form must fill in one form for each different set of cylinders. The Set I.D. Number must be written on each cylinder mold of the set this form represents (cross out any other I.D. marking except yours). Slump, air content and concrete temperature tests are required to be performed when fabricating cylinders. For your *Sampled From* location, please use PP (Point of Placement) or TD (Truck Chute Discharge).

Client: Parsons | **Job No.:** 20013

Project & Location: Richardson Hill Landfill | **Set I.D.:** 6700 | **Set** 1 **of** 1

FIELD DATA AND TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled: 11/5/02 Time Sampled: 12:30 am/pm	No. of Cylinders Cast: 4
Sampled By: TW Sampled From: TD	Slump (nearest 1/4 in.): 4 1/2 inches
Truck No.: 20	Air Content: 3.0 % Unit Weight: pcf
Ticket No.: 76763	Concrete Temperature: 63 °F
Quantity of Load: 9 cu. yds.	Ambient Temperature: 43 °F
Water Added at Site: 8 gallons	Weather Conditions: Cloudy
Contractor: Garbade	Admixture Added at Site:
Supplier: Otsego Readymix Mix. No.:	Required Strength at 28 Days: 4500 psi
Location of Placement: Wall	
Where are Cylinders Stored On-Site: In Barn	

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7					Exterior Cont.	
28					Containment	
28					Wall West side	
H					(Tank T 1 Pad)	

Additional Comments: Test Results Reported to Ed Rudy.

The tests were performed in compliance with the specifications given above unless noted below:
Put a ✓

☐ The concrete was not sampled in accordance with ASTM C-172,

☐ The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured _____ days in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for all testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

CME Associates, Inc.

Construction Materials Evaluation

CONCRETE INSPECTOR FIELD & LABORATORY TEST REPORT

Client: Parsons
Report No.: 20013C-07-1102
Project & Location: Richardson Hill Landfill
Set I.D.: 6704 **Set** 1 **of** 1

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	November 18, 2002	**Time Sampled:**	12:00pm	**No. of Cylinders Cast:**	4	
Sampled By:	T. Wheeler	**Sampled From*:**	TD	**Slump (nearest ¼ in.):**	3.5	
Truck No.:	22			**Air Content (%):**	1.5	
Ticket No.:	77008			**Unit Weight (pcf):**		
Quantity of Load:	10	**cubic yards**		**Concrete Temperature:**	83	°F
Water Added at Site:	10	**gallons**		**Ambient Temperature:**	33	°F
Contractor:	Garbade Construction			**Weather Conditions:**	Snow	
Supplier	Ostego Ready mix	**Mix No.:**	02093	**Admixture Added at Site:**		
				Required Strength at 28 days (psi):	**4000**	
Location of Placement:	Tank Slab					
Where are Cylinders Stored On-Site:	In Barn					

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31 and tested in accordance with ASTM C-39.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.007	28.34	121,000	**4270**	Column Line D, D– 3, Tank Slab	
28	6.013	28.40	152,000	**5350**		
28	6.013	28.40	154,000	**5420**		
Hold	6.013	28.40	155,000	**5460**		

Additional Comments: Test Results were reported to Ed Rudy.

*PP = Point of Placement; TD = Truck Chute Discharge.

The tests were performed in compliance with the specifications given above unless noted below:

☐ The concrete was not sampled in accordance with ASTM C-172,

☑ The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured 2 days in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for **all** testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.
Construction Materials Evaluation

CONCRETE INSPECTOR FIELD & LABORATORY TEST REPORT

Client: Parsons

Project & Location: Richardson Hill Landfill

Report No.: 20013C-07-1102

Set I.D.: 6704 **Set** 1 **of** 1

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	November 18, 2002	**Time Sampled:**	12:00pm	**No. of Cylinders Cast:**	4		
Sampled By:	T. Wheeler	**Sampled From*:**	TD	**Slump (nearest ¼ in.):**	3.5		
Truck No.:	22			**Air Content (%):**	1.5		
Ticket No.:	77008			**Unit Weight (pcf):**			
Quantity of Load:	10	cubic yards		**Concrete Temperature:**	83	°F	
Water Added at Site:	10	gallons		**Ambient Temperature:**	33	°F	
Contractor:	Garbade Construction			**Weather Conditioos:**	Snow		
Supplier	Ostego Ready mix	**Mix No.:**	02093	**Admixture Added at Site:**			
Location of Placement:	Tank Slab			**Required Strength at 28 days (psi):**	**4000**		
Where are Cylinders Stored On-Site:	In Barn						

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31 and tested in accordance with ASTM C-39.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.007	28.34	121,000	**4270**	Column Line D, D– 3, Tank Slab	
28						
28						
Hold						

Additioual Comments: Test Results were reported to Ed Rudy.

*PP = Point of Placement; TD = Truck Chute Discharge.

The tests were performed in compliance with the specifications given above unless noted below:

☐ The concrete was not sampled in accordance with ASTM C-172,

☑ The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured 2 days in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for **all** testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

CME Associates, Inc.

PLEASE ✓ OFFICE LOCATION Ithaca

ALBANY (518) 459-2394	BUFFALO (716) 877-9577	ELMIRA (607) 739-4033	ROCHESTER (716) 254-8740	SYRACUSE (315) 668-3868
☐	☐	☑	☐	☐

The Technician completing this form must fill in one form for each different set of cylinders. The Set I.D. Number must be written on each cylinder mold of the set this form represents (cross out any other I.D. marking except yours). Slump, air content and concrete temperature tests are required to be performed when fabricating cylinders. For your *Sampled From* location, please use PP (Point of Placement) or TD (Truck Chute Discharge).

Client: ~~RHL~~ Parsons **Job No.:**

Project & Location: RHL **Set I.D.:** 6704 **Set** 1 **of** 1

FIELD DATA AND TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled: 11/18/02 Time Sampled: 12:10 am (pm)	No. of Cylinders Cast: 4
Sampled By: TW Sampled From: TD	Slump (nearest 1/4 in.): 3 1/2 inches
Truck No.: 22	Air Content: 1.5 % Unit Weight: pcf
Ticket No.: ~~78530~~ 77008	Concrete Temperature: 82.5 °F
Quantity of Load: 10 cu. yds.	Ambient Temperature: 33 °F
Water Added at Site: 10 gallons	Weather Conditions: Snow
Contractor: Garbade	Admixture Added at Site:
Supplier: Otsego Readymix Mix. No.: 02093	Required Strength at 28 Days: 4500 psi
Location of Placement: Tank slab	
Where are Cylinders Stored On-Site: In Barn	

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7					Column Line-D	
~~28~~					Line -3	
~~28~~						
H					Tank slab.	

Additional Comments: Test Results Reported to Ed Rudy.

The tests were performed in compliance with the specifications given above unless noted below:
Put a ✓

☐ The concrete was not sampled in accordance with ASTM C-172,

☐ The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured _____ days in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for all testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

CME Associates, Inc.

Construction Materials Evaluation

CONCRETE INSPECTOR FIELD & LABORATORY TEST REPORT

Client: Parsons
Report No.: 20013C-08-0103
Project & Location: Richardson Hill Landfill
Set I.D.: 6719 Set 1 of 4

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	January 7, 2003	**Time Sampled:**	8:45am	**No. of Cylinders Cast:**	4	
Sampled By:	T. Wheeler	**Sampled From*:**	TD	**Slump (nearest ¼ in.):**	4.5	
Truck No.:	22			**Air Content (%):**	NA	
Ticket No.:	77493			**Unit Weight (pcf):**		
Quantity of Load:	10	**cubic yards**		**Concrete Temperature:**	62	°F
Water Added at Site:	15	**gallons**		**Ambient Temperature:**	16	°F
Contractor:	Garbade Construction			**Weather Conditions:**	Sunny	
Supplier	Ostego Ready Mix	**Mix No.:**	02093	**Admixture Added at Site:**		
				Required Strength at 28 days (psi):	**4000**	
Location of Placement:	Floor Slab					
Where are Cylinders Stored On-Site:	In Building on Tank Pad.					

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31 and tested in accordance with ASTM C-39.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.02	28.74	109,230	**3800**	Floor Slab for ramp in Column – D, Line – 4.	
28	6.02	28.74	128,200	**4460**		
28	6.02	28.74	122,900	**4280**		
Hold	6.02	28.74	133,300	**4640**		

Additional Comments: Test Results were reported to Ed Rudy.

*PP = Point of Placement; TD = Truck Chute Discharge.

The tests were performed in compliance with the specifications given above unless noted below:

☐ The concrete was not sampled in accordance with ASTM C-172,

☑ The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured 1 day in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for all testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

AASHTO R18

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.

Construction Materials Evaluation

CONCRETE INSPECTOR FIELD & LABORATORY TEST REPORT

Client: Parsons
Project & Location: Richardson Hill Landfill

Report No.: 20013C-08-0103
Set I.D.: 6719 **Set** 1 **of** 4

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (aptional) C-138.

Date Sampled:	January 7, 2003	**Time Sampled:**	8:45am	**No. of Cylinders Cast:**	4	
Sampled By:	T. Wheeler	**Sampled From*:**	TD	**Slump (nearest ¼ in.):**	4.5	
Truck No.:	22			**Air Content (%):**	NA	
Ticket No.:	77493			**Unit Weight (pcf):**		
Quantity of Load:	10	**cubic yards**		**Concrete Temperature:**	62	°F
Water Added at Site:	15	**gallons**		**Ambient Temperature:**	16	°F
Contractor:	Garbade Construction			**Weather Conditions:**	Sunny	
Supplier	Ostego Ready Mix	**Mix No.:**	02093	**Admixture Added at Site:**		
				Required Strength at 28 days (psi):	**4000**	
Location of Placement:	Floor Slab					
Where are Cylinders Stored Oo-Site:	In Building on Tank Pad.					

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31 and tested in accordance with ASTM C-39.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.02	28.74	109,230	**3800**	Floor Slab for ramp in Column – D, Line – 4.	
28						
28						
Hold						

Additional Comments: Test Results were reported to Ed Rudy.

*PP = Point of Placement; TD = Truck Chute Discharge.

The tests were performed in compliance with the specifications given above unless noted below:

☐ The concrete was not sampled in accordance with ASTM C-172,

☑ The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured 1 day in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for **all** testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9178

CME Associates, Inc.

PLEASE ✓ OFFICE LOCATION Ithaca

ALBANY (518) 459-2394	BUFFALO (716) 877-9577	ELMIRA (607) 739-4033	ROCHESTER (716) 254-8740	SYRACUSE (315) 668-3868
☐	☐	✓	☐	☐

The Technician completing this form must fill in one form for each different set of cylinders. The Set I.D. Number must be written on each cylinder mold of the set this form represents (cross out any other I.D. marking except yours). Slump, air content and concrete temperature tests are required to be performed when fabricating cylinders. For your *Sampled From* location, please use PP (Point of Placement) or TD (Truck Chute Discharge).

Client: Parsons | **Job No.:** 20013

Project & Location: RHL | **Set I.D.** 6719 | **Set** 1 **of** 1

FIELD DATA AND TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled: 11/7/03 Time Sampled: 8:45 (am)/pm	No. of Cylinders Cast: 4
Sampled By: TW Sampled From: TD	Slump (nearest 1/4 in.): 4 1/2 inches
Truck No.: 22	Air Content: % Unit Weight: pcf
Ticket No.: 77493	Concrete Temperature: 62 °F
Quantity of Load: 10 cu. yds.	Ambient Temperature: 16 °F
Water Added at Site: 15 gallons	Weather Conditions: Sunny.
Contractor: Garbade.	Admixture Added at Site:
Supplier: Otsego Ready mix Mix. No.: 02093	Required Strength at 28 Days: 4000 psi
Location of Placement: Floor Pad	
Where are Cylinders Stored On-Site: In Bldg on Tank Pad	

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7					Floor Pad for	
28					ramp in	
28					Column - D	
H					Line - 4	

Additional Comments: Test results reported to Ed Rudy of Parsons.

The tests were performed in compliance with the specifications given above unless noted below:
Put a ✓

☐ The concrete was not sampled in accordance with ASTM C-172,

☐ The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured _____ days in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for all testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

CME Associates, Inc.
Construction Materials Evaluation

CONCRETE INSPECTOR FIELD & LABORATORY TEST REPORT

Client: Parsons
Report No.: 20013C-08-0103
Project & Location: Richardson Hill Landfill
Set I.D.: 6722 **Set** 2 **of** 4

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	January 7, 2003	**Time Sampled:**	10:10am	**Nn. of Cylinders Cast:**	4	
Sampled By:	T. Wheeler	**Sampled From*:**	TD	**Slump (nearest ¼ in.):**	5.5	
Truck No.:	25			**Air Content (%):**	NA	
Ticket No.:	77496			**Unit Weight (pcf):**		
Quantity of Load:	11	**cubic yards**		**Cnncrete Temperature:**	48	°F
Water Added at Site:	14	**gallons**		**Ambient Temperature:**	18	°F
Contractor:	Garbade Construction			**Weather Conditions:**	Sunny	
Supplier	Ostego Ready Mix	**Mix Nn.:**	02093	**Admixture Added at Site:**		
				Required Strength at 28 days (psi):	**4000**	
Location of Placement:	Floor Slab					
Where are Cylinders Stored On-Site:	In Building on Tank Pad.					

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31 and tested in accordance with ASTM C-39.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this Incation in concrete pnur	Defects in specimen or cap or type of fracture if not conical
7	6.02	28.74	120,060	**4180**	Floor Slab Column – C Line 4 + 5	
28	6.02	28.74	132,800	**4620**		
28	6.02	28.74	134,500	**4680**		
28	6.02	28.74	135,800	**4730**		

Additional Comments: Test Results were reported to Ed Rudy.

*PP = Point of Placement; TD = Truck Cbute Discharge.

The tests were performed in compliance with the specifications given above unless noted below:

- ☐ The concrete was not sampled in accordance with ASTM C-172,
- ☑ The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured 1 day in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for **all** testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

AASHTO R18

CME Associates, Inc.
Construction Materials Evaluation

CONCRETE INSPECTOR FIELD & LABORATORY TEST REPORT

Client: Parsons
Project & Location: Richardson Hill Landfill

Report No.: 20013C-08-0103
Set I.D.: 6722 **Set** 2 **of** 4

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	January 7, 2003	**Time Sampled:**	10:10am	**No. of Cylinders Cast:**	4	
Sampled By:	T. Wheeler	**Sampled From*:**	TD	**Slump (nearest ¼ in.):**	5.5	
Truck No.:	25			**Air Content (%):**	NA	
Ticket No.:	77496			**Unit Weight (pcf):**		
Quantity of Load:	11	**cubic yards**		**Concrete Temperature:**	48	°F
Water Added at Site:	14	**gallons**		**Ambient Temperature:**	18	°F
Contractor:	Garbade Construction			**Weather Conditions:**	Sunny	
Supplier	Ostego Ready Mix	**Mix No.:**	02093	**Admixture Added at Site:**		
				Required Strength at 28 days (psi):	**4000**	
Location of Placement:	Floor Slab					
Where are Cylinders Stored On-Site:	In Building on Tank Pad.					

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31 and tested in accordance with ASTM C-39.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.02	28.74	120,060	**4180**	Floor Slab Column – C Line 4 + 5	
28						
28						
Hold						

Additional Comments: Test Results were reported to Ed Rudy.

*PP = Point of Placement; TD = Truck Chute Discharge.

The tests were performed in compliance with the specifications given above unless noted below:

[ ] The concrete was not sampled in accordance with ASTM C-172,
[√] The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured 1 day in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for **all** testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

CME Associates, Inc.

PLEASE ✓ OFFICE LOCATION Ithaca

ALBANY (518) 459-2394	BUFFALO (716) 877-9577	ELMIRA (607) 739-4033	ROCHESTER (716) 254-8740	SYRACUSE (315) 668-3868
☐	☐	☑	☐	☐

The Technician completing this form must fill in one form for each different set of cylinders. The Set I.D. Number must be written on each cylinder mold of the set this form represents (cross out any other I.D. marking except yours). Slump, air content and concrete temperature tests are required to be performed when fabricating cylinders. For your *Sampled From* location, please use PP (Point of Placement) or TD (Truck Chute Discharge).

Client: Parsons | **Job No.:** 2013

Project & Location: RHL | **Set I.D.** 6722 | **Set** 1 **of** 1

FIELD DATA AND TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled: 11/7/03 Time Sampled: 10:10 (am)/pm	No. of Cylinders Cast: 4
Sampled By: TW Sampled From: TD	Slump (nearest 1/4 in.): 5 1/2 inches
Truck No.: 25	Air Content: % Unit Weight: pcf
Ticket No.: 77496	Concrete Temperature: 48 °F
Quantity of Load: 11 cu. yds.	Ambient Temperature: 18 °F
Water Added at Site: 14 gallons	Weather Conditions: sunny.
Contractor: Garbade	Admixture Added at Site:
Supplier: Otsego Ready-mix Mix. No.: 02093	Required Strength at 28 Days: 4000 psi
Location of Placement: Floor Pad.	
Where are Cylinders Stored On-Site: Tank Pad inside Bldg	

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7					Floor Pad.	
28					Column - C	
28					Line 4 + 5	
H						

Additional Comments: Test results reported to Ed Rudy of Parsons.

The tests were performed in compliance with the specifications given above unless noted below:
Put a ✓

☐ The concrete was not sampled in accordance with ASTM C-172,

☐ The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured _____ days in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for all testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

CME Associates, Inc.
Construction Materials Evaluation

CONCRETE INSPECTOR FIELD & LABORATORY TEST REPORT

Client: Parsons
Project & Location: Richardson Hill Landfill

Report No.: 20013C-08-0103
Set I.D.: 6723 **Set** 3 **of** 4

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	January 7, 2003	**Time Sampled:**	12:15pm	**No. of Cylinders Cast:**	4	
Sampled By:	T. Wheeler	**Sampled From*:**	TD	**Stump (nearest ¼ in.):**	5.5	
Truck No.:	25			**Air Content (%):**	NA	
Ticket No.:	77499			**Unit Weight (pcf):**		
Quantity of Load:	10	**cubic yards**		**Concrete Temperature:**	50	°F
Water Added at Site:	14	**gallons**		**Ambient Temperature:**	21	°F
Contractor:	Garbade Construction			**Weather Conditions:**	Sunny	
Supplier	Ostego Ready Mix	**Mix No.:**	02093	**Admixture Added at Site:**		
				Required Strength at 28 days (psi):	**4000**	
Location of Placement:	Floor Slab					
Where are Cylinders Stored On-Site:	In Building on Tank Pad.					

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31 and tested in accordance with ASTM C-39.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.02	28.74	112,960	**3930**	Floor Slab Column – B & C, Line 3 & 4	
28	6.02	28.74	129,800	**4520**		
28	6.02	28.74	122,700	**4270**		
28	6.02	28.74	127,300	**4430**		

Additional Comments: Test Results were reported to Ed Rudy.

*PP = Point of Placement; TD = Truck Chute Discharge.

The tests were performed in compliance with the specifications given above unless noted below:

☐ The concrete was not sampled in accordance with ASTM C-172,
☑ The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured 1 day in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for **all** testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

AAP AASHTO R18

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.
Construction Materials Evaluation

CONCRETE INSPECTOR FIELD & LABORATORY TEST REPORT

Client: Parsons
Project & Location: Richardson Hill Landfill

Report No.: 20013C-08-0103
Set I.D.: 6723 **Set** 3 **of** 4

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	January 7, 2003	**Time Sampled:**	12:15pm	**No. of Cylinders Cast:**	4	
Sampled By:	T. Wheeler	**Sampled From*:**	TD	**Slump (nearest ¼ in.):**	5.5	
Truck No.:	25			**Air Content (%):**	NA	
Ticket No.:	77499			**Unit Weight (pcf):**		
Quantity of Load:	10	**cubic yards**		**Concrete Temperature:**	50	°F
Water Added at Site:	14	**gallons**		**Ambient Temperature:**	21	°F
Contractor:	Garbade Construction			**Weather Conditions:**	Sunny	
Supplier	Ostego Ready Mix	**Mix No.:**	02093	**Admixture Added at Site:**		
				Required Strength at 28 days (psi):	**4000**	
Location of Placement:	Floor Slab					
Where are Cylinders Stored On-Site:	In Building on Tank Pad.					

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31 and tested in accordance with ASTM C-39.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.02	28.74	112,960	**3930**	Floor Slab Column – B & C, Line 3 & 4	
28						
28						
Hold						

Additional Comments: Test Results were reported to Ed Rudy.

*PP = Point of Placement; TD = Truck Chute Discharge.

The tests were performed in compliance with the specifications given above unless noted below:

- [ ] Tbe concrete was not sampled in accordance with ASTM C-172,
- [√] The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured 1 day in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for all testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.

PLEASE ✓ OFFICE LOCATION Ithaca

ALBANY (518) 459-2394	BUFFALO (716) 877-9577	ELMIRA (607) 739-4033	ROCHESTER (716) 254-8740	SYRACUSE (315) 668-3868
☐	☐	✓	☐	☐

The Technician completing this form must fill in one form for each different set of cylinders. The Set I.D. Number must be written on each cylinder mold of the set this form represents (cross out any other I.D. marking except yours). Slump, air content and concrete temperature tests are required to be performed when fabricating cylinders. For your *Sampled From* location, please use PP (Point of Placement) or TD (Truck Chute Discharge).

Client: Parsons | **Job No.:** 2013

Project & Location: RHL | **Set I.D.** 6723 | **Set** 3 **of** 1

FIELD DATA AND TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled: 1/7/03 Time Sampled: 12:15 am/(pm)	No. of Cylinders Cast: 4
Sampled By: TW Sampled From: TD	Slump (nearest 1/4 in.): 5 1/2 inches
Truck No.: 23	Air Content: % Unit Weight: pcf
Ticket No.: 77499	Concrete Temperature: 50 °F
Quantity of Load: 10 cu. yds.	Ambient Temperature: 21 °F
Water Added at Site: 14 gallons	Weather Conditions: Partly sunny
Contractor: Garbade	Admixture Added at Site:
Supplier: Otsego Readymix Mix. No.: 02093	Required Strength at 28 Days: 4000 psi
Location of Placement: Floor Pad	
Where are Cylinders Stored On-Site: Tank Pad inside Bldg	

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7					Floor Pad,	
28					Column B+C	
28					Line - 3+4	
H						

Additional Comments: Test results reported to Ed Rudy of Parsons.

The tests were performed in compliance with the specifications given above unless noted below:
Put a ✓

☐ The concrete was not sampled in accordance with ASTM C-172,

☐ The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured _____ days in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for all testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

CME Associates, Inc.
Construction Materials Evaluation

CONCRETE INSPECTOR FIELD & LABORATORY TEST REPORT

Client: Parsons
Report No.: 20013C-08-0103
Project & Location: Richardson Hill Landfill
Set I.D.: 6724 **Set** 4 **of** 4

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	January 7, 2003	**Time Sampled:**	2:10pm	**No. of Cylinders Cast:**	4
Sampled By:	T. Wheeler	**Sampled From*:**	TD	**Slump (nearest ¼ in.):**	5.5
Truck No.:	26			**Air Content (%):**	NA
Ticket No.:	77501			**Unit Weight (pcf):**	
Quantity of Load:	10	**cubic yards**		**Concrete Temperature:**	55 °F
Water Added at Site:	15	**gallons**		**Ambient Temperature:**	26 °F
Contractor:	Garbade Construction			**Weather Conditions:**	Sunny
Supplier	Ostego Ready Mix	**Mix No.:**	02093	**Admixture Added at Site:**	
				Required Strength at 28 days (psi):	**4000**
Location of Placement:	Floor Slab				
Where are Cylinders Stored On-Site:	On Grade beam.				

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31 and tested in accordance with ASTM C-39.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.0	28.74	114,240	**3970**	Floor Slab Column – B & C, Line 1 & 3	
28	6.0	28.74	117,100	**4070**		
28	6.0	28.74	113,970	**3970**		
28	6.0	28.74	122,700	**4270**		

Additional Comments: Test Results were reported to Ed Rudy.

*PP = Point of Placement; TD = Truck Chute Discharge.

The tests were performed in compliance with the specifications given above unless noted below:

☐ The concrete was not sampled in accordance with ASTM C-172,

☑ The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured 1 day in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for **all** testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

AASHTO R18

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.
Construction Materials Evaluation

CONCRETE INSPECTOR FIELD & LABORATORY TEST REPORT

Client: Parsons
Report No.: 20013C-08-0103
Project & Location: Richardson Hill Landfill
Set I.D.: 6724 Set 4 of 4

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	January 7, 2003	**Time Sampled:**	2:10pm	**No. of Cylinders Cast:**	4
Sampled By:	T. Wheeler	**Sampled From*:**	TD	**Slump (nearest ¼ in.):**	5.5
Truck No.:	26			**Air Content (%):**	NA
Ticket No.:	77501			**Unit Weight (pcf):**	
Quantity of Load:	10	**cubic yards**		**Concrete Temperature:**	55 °F
Water Added at Site:	15	**gallons**		**Ambient Temperature:**	26 °F
Contractor:	Garbade Construction			**Weather Conditions:**	Sunny
Supplier	Ostego Ready Mix	**Mix No.:**	02093	**Admixture Added at Site:**	
				Required Strength at 28 days (psi):	**4000**
Location of Placement:	Floor Slab				
Where are Cylinders Stored On-Site:	On Grade beam.				

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31 and tested in accordance with ASTM C-39.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.0	28.74	114,240	**3970**	Floor Slab Column – B & C, Line 1 & 3	
28						
28						
Hold						

Additional Comments: Test Results were reported to Ed Rudy.

*PP = Point of Placement; TD = Truck Chute Discharge.

The tests were performed in compliance with the specifications given above unless noted below:

☐ The concrete was not sampled in accordance with ASTM C-172,

☑ The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured 1 day in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for all testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

CME Associates, Inc.

PLEASE ✓ OFFICE LOCATION Ithaca

ALBANY (518) 459-2394	BUFFALO (716) 877-9577	ELMIRA (607) 739-4033	ROCHESTER (716) 254-8740	SYRACUSE (315) 668-3868
☐	☐	✓	☐	☐

The Technician completing this form must fill in one form for each different set of cylinders. The Set I.D. Number must be written on each cylinder mold of the set this form represents (cross out any other I.D. marking except yours). Slump, air content and concrete temperature tests are required to be performed when fabricating cylinders. For your *Sampled From* location, please use PP (Point of Placement) or TD (Truck Chute Discharge).

Client: Parsons | **Job No.:** 20013

Project & Location: RHL | **Set I.D.** 6724 | **Set** 4 **of** 1

FIELD DATA AND TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled: 1/7/02 Time Sampled: 2:10 am/pm	No. of Cylinders Cast: 4
Sampled By: TW Sampled From: TD	Slump (nearest 1/4 in.): 5 1/2 inches
Truck No.: 26	Air Content: % Unit Weight: pcf
Ticket No.: 77501	Concrete Temperature: 55 °F
Quantity of Load: 10 cu. yds.	Ambient Temperature: 26 °F
Water Added at Site: 15 gallons	Weather Conditions: Partly sunny
Contractor: Garbade	Admixture Added at Site:
Supplier: Otsego Ready mix Mix. No.: 02093	Required Strength at 28 Days: 4000 psi
Location of Placement: Floor Pad	
Where are Cylinders Stored On-Site: ~~Bank Post inside Bldg~~ On Grade beam.	

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7					Floor Pad	
28					Column - B+C	
28					Zone - 2+3	
H						

Additional Comments: Test results reported to Ed Rudy.

The tests were performed in compliance with the specifications given above unless noted below:
Put a ✓

☐ The concrete was not sampled in accordance with ASTM C-172,

☐ The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured _____ days in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for all testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

CME Associates, Inc.
Construction Materials Evaluation

1 of 1

Richardson Hill Landfill
Floor Slab Placed 1-7-03

Set #	Age	Max. Load	Compressive Strength
6719	7	109,200 lbs	3800 psi
6722	7	120,000 lbs	4180 psi
6723	7	112,900 lbs	3930 psi
6724	7	114,200 lbs	3970 psi

T. Hamilton

Rec'd 01-14-02 @ 1100
EMC

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 899-9176

CME Associates, Inc.
Construction Materials Evaluation

CONCRETE INSPECTOR FIELD & LABORATORY TEST REPORT

Client: Parsons
Project & Location: Richardson Hill Landfill

Report No.: 20013C-09-0103
Set I.D.: 6726 **Set** 1 **of** 1

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	January 13, 2003	**Time Sampled:**	9:25am	**No. of Cylinders Cast:**	4
Sampled By:	T. Wheeler	**Sampled From*:**	TD	**Slump (nearest ¼ in.):**	4.5
Truck No.:	26			**Air Content (%):**	NA
Ticket No.:	77541			**Unit Weight (pcf):**	
Quantity of Load:	10	**cubic yards**		**Concrete Temperature:**	85 °F
Water Added at Site:	10	**gallons**		**Ambient Temperature:**	20 °F
Contractor:	Garbade Construction			**Weather Conditions:**	Cloudy
Supplier	Ostego Ready Mix	**Mix No.:**	02093	**Admixture Added at Site:**	
				Required Strength at 28 days (psi):	**4000**
Location of Placement:	Floor Slab				
Where are Cylinders Stored On-Site:	Inside Building				

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31 and tested in accordance with ASTM C-39.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.02	28.74	96,570	**3360**	Floor Slab Column – D & C, Line 5	
28	6.02	28.74	119,990	**4180**		
28	6.02	28.74	112,410	**3910**		
Hold	6.02	28.74	132,690	**4620**		

Additional Comments: Test Results were reported to Ed Rudy.

*PP = Point of Placement; TD = Truck Chute Discharge.

The tests were performed in compliance with the specifications given above unless noted below:

- [ ] The concrete was not sampled in accordance with ASTM C-172,
- [√] The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured 2 days in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for **all** testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

AASHTO R18

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.
Construction Materials Evaluation

CONCRETE INSPECTOR FIELD & LABORATORY TEST REPORT

Client: Parsons
Project & Location: Richardson Hill Landfill
Report No.: 20013C-09-0103
Set I.D.: 6726 **Set** 1 **of** 1

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	January 13, 2003	**Time Sampled:**	9:25am	**No. of Cylinders Cast:**	4
Sampled By:	T. Wheeler	**Sampled From*:**	TD	**Slump (nearest ¼ in.):**	4.5
Truck No.:	26			**Air Content (%):**	NA
Ticket No.:	77541			**Unit Weight (pcf):**	
Quantity of Load:	10	**cubic yards**		**Concrete Temperature:**	85 °F
Water Added at Site:	10	**gallons**		**Ambient Temperature:**	20 °F
Contractor:	Garbade Construction			**Weather Conditions:**	Cloudy
Supplier	Ostego Ready Mix	**Mix No.:**	02093	**Admixture Added at Site:**	
				Required Strength at 28 days (psi):	**4000**
Location of Placement:	Floor Slab				
Where are Cylinders Stored On-Site:	Inside Building				

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31 and tested in accordance with ASTM C-39.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.02	28.74	96,570	**3360**	Floor Slab Column – D & C, Line 5	
28	6.02	28.74	119,990	**4180**		
28	6.02	28.74	112,410	**3910**		
Hold	6.02	28.74				

Additiooal Comments: Test Results were reported to Ed Rudy.

*PP = Point of Placement; TD = Truck Chute Discharge.

The tests were performed in compliance with the specifications given above unless noted below:

- ☐ The concrete was not sampled in accordance with ASTM C-172,
- ☑ The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured 2 days in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for **all** testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

AASHTO R18

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.

Construction Materials Evaluation

CONCRETE INSPECTOR FIELD & LABORATORY TEST REPORT

Client: Parsons
Project & Location: Richardson Hill Landfill

Report No.: 20013C-09-0103
Set I.D.: 6726 **Set** 1 **of** 1

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	January 13, 2003	**Time Sampled:**	9:25am	**No. of Cylinders Cast:**	4	
Sampled By:	T. Wheeler	**Sampled From*:**	TD	**Slump (nearest ¼ in.):**	4.5	
Truck No.:	26			**Air Content (%):**	NA	
Ticket No.:	77541			**Unit Weight (pcf):**		
Quantity of Load:	10	**cubic yards**		**Concrete Temperature:**	85	°F
Water Added at Site:	10	**gallons**		**Ambient Temperature:**	20	°F
Contractor:	Garbade Construction			**Weather Conditions:**	Cloudy	
Supplier	Ostego Ready Mix	**Mix No.:**	02093	**Admixture Added at Site:**		
				Required Strength at 28 days (psi):	**4000**	
Location of Placement:	Floor Slab					
Where are Cylinders Stored On-Site:	Inside Building					

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31 and tested in accordance with ASTM C-39.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.02	28.74	96,570	**3360**	Floor Slab Column – D & C, Line 5	
28						
28						
Hold						

Additional Comments: Test Results were reported to Ed Rudy.

*PP = Point of Placement; TD = Truck Chute Discharge.

The tests were performed in compliance with the specifications given above unless noted below:

☐ The concrete was not sampled in accordance with ASTM C-172,

☑ The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured 2 days in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for **all** testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

AAP AASHTO R18

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.
Construction Materials Evaluation

Richardson Hill Landfill

Floor Slab Placement
Row C-D Line 5

Placed 1-13-03

7 Day Test 1-20-03

96,600 Total Load
3,360 psi

T. Hamilton
1-22-02

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.

PLEASE ✓ OFFICE LOCATION Ithaca

ALBANY (518) 459-2394	BUFFALO (716) 877-9577	ELMIRA (607) 739-4033	ROCHESTER (716) 254-8740	SYRACUSE (315) 668-3868
☐	☐	☑	☐	☐

The Technician completing this form must fill in one form for each different set of cylinders. The Set I.D. Number must be written on each cylinder mold of the set this form represents (cross out any other I.D. marking except yours). Slump, air content and concrete temperature tests are required to be performed when fabricating cylinders. For your *Sampled From* location, please use PP (Point of Placement) or TD (Truck Chute Discharge).

Client: Parsons | **Job No.:** 20013

Project & Location: RHL | **Set I.D.** 6726 | **Set** 1 of 1

FIELD DATA AND TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled: 1/13/02 Time Sampled: 9:25 (am)/pm	No. of Cylinders Cast: 4
Sampled By: TW Sampled From: TD	Slump (nearest 1/4 in.): 4 1/2 inches
Truck No.: 26	Air Content: % Unit Weight: pcf
Ticket No.: 77541	Concrete Temperature: 85 °F
Quantity of Load: 10 cu. yds.	Ambient Temperature: 20 °F
Water Added at Site: 10 gallons	Weather Conditions: Cloudy
Contractor: Barbade	Admixture Added at Site:
Supplier: Otsego Readymix Mix. No.: 02093	Required Strength at 28 Days: 4000 psi
Location of Placement: Floor Pad	
Where are Cylinders Stored On-Site: Inside Bldg.	

RESULTS OF LAB TESTING

The concrete test specimens were made in accordance with ASTM C-31.

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
1-20 7					Floor Pad	
2-10 28					Column - D+C	
2-10 28					Line - 5	
H						

Additional Comments: Test results reported to Ed Rudy.

The tests were performed in compliance with the specifications given above unless noted below:
Put a ✓

☐ The concrete was not sampled in accordance with ASTM C-172,

☐ The Aggregate Correction Factor was not subtracted from the air meter gauge reading.

The cylinders were initially cured _____ days in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for all testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

CME Associates, Inc.

Construction Materials Evaluation

LABORATORY COMPRESSION TEST REPORT
STANDARD CYLINDERS 6" x 12"

Client: Parsons
Project & Location: Richardson Hill Landfill

Report No.: 20013C-10-1002
Set I.D.: 6897 **Set** 1 **of** 2

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	January 22, 2003	**Time Sampled:**	11:00am	**No. of Cylinders Cast:**	4	
Sampled By:	CLIENT	**Sampled From*:**	TD	**Slump (nearest ¼ in.):**		
Truck No.:	1			**Air Content (%):**		
Ticket No.:				**Unit Weight (pcf):**		
Quantity of Load:	4.5	**cubic yards**		**Concrete Temperature:**		°F
Water Added at Site:		**gallons**		**Ambient Temperature:**	0	°F
Contractor:	Garbade Construction			**Weather Conditions:**	Cold	
Supplier	Otsego Ready Mix	**Mix No.:**	02093	**Admixture Added at Site:**		
				Required Strength at 28 days (psi):	**4000**	

Location of Placement: Containment curb, A-2 to A-3, Compressor Pad A.5 - 5

Where are Cylinders Stored On-Site:

RESULTS OF LAB TESTING

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.011	28.38	114,000	**4000**		
28	6.001	28.30	162,000	**5720**		
28	6.001	28.30	153,000	**5410**		
Hold	6.001	28.30	156,000	**5510**		

Additional Comments: Cylinders were cast by the client.

CME ASSOCIATES, INC. WILL NOT ACCEPT ANY LIABILITY AS A RESULT OF DATA INTERPRETATION. UNLESS OTHERWISE NOTED, THE ABOVE INFORMATION WAS SUPPLIED BY THE CLIENT OR CONTRACTOR AND IS REPORTED AT THEIR REQUEST. NO REPRESENTATION AS TO THE ACCURACY OF INFORMATION SUPPLIED BY OTHERS IS INTENDED OR MADE.

The cylinders were initially cured 1 day in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for all testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

AASHTO R18

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

CME Associates, Inc.

Construction Materials Evaluation

LABORATORY COMPRESSION TEST REPORT
STANDARD CYLINDERS 6" x 12"

Client: Parsons
Project & Location: Richardson Hill Landfill

Report No.: 20013C-10-1002
Set I.D.: 6897 **Set** 1 **of** 2

FIELD DATA & TEST RESULTS

The fresh concrete was tested in accordance with ASTM C-143, C-173 or C-231, C-1064 and (optional) C-138.

Date Sampled:	January 22, 2003	**Time Sampled:**	11:00am	**No. of Cylinders Cast:**	4
Sampled By:	CLIENT	**Sampled From*:**	TD	**Slump (nearest ¼ in.):**	
Truck No.:	1			**Air Content (%):**	
Ticket No.:				**Unit Weight (pcf):**	
Quantity of Load:	4.5	**cubic yards**		**Concrete Temperature:**	°F
Water Added at Site:		**gallons**		**Ambient Temperature:**	0 °F
Contractor:	Garbade Construction			**Weather Conditions:**	Cold
Supplier	Otsego Ready Mix	**Mix No.:**	02093	**Admixture Added at Site:**	
				Required Strength at 28 days (psi):	**4000**
Location of Placement:	Containment curb, A-2 to A-3, Compressor Pad A.5 - 5				
Where are Cylinders Stored On-Site:					

RESULTS OF LAB TESTING

Test Age (days)	Test Specimen Dia. (in.)	Test Specimen Area (in.²)	Maximum Load (lbf.)	Specimen Compressive Strength (psi)	Cylinders represent this location in concrete pour	Defects in specimen or cap or type of fracture if not conical
7	6.011	28.38	114,000	**4000**		
28						
28						
Hold						

Additional Comments: Cylinders were cast by the client.

CME ASSOCIATES, INC. WILL NOT ACCEPT ANY LIABILITY AS A RESULT OF DATA INTERPRETATION. UNLESS OTHERWISE NOTED, THE ABOVE INFORMATION WAS SUPPLIED BY THE CLIENT OR CONTRACTOR AND IS REPORTED AT THEIR REQUEST. NO REPRESENTATION AS TO THE ACCURACY OF INFORMATION SUPPLIED BY OTHERS IS INTENDED OR MADE.

The cylinders were initially cured 1 day in the field. For the remaining days, the test specimens were cured in a moist room or water storage tank complying with ASTM C-511.

CME Laboratories are in conformance with ASTM C-1077 and participate in Proficiency Testing Programs administered by CCRL and AASHTO as required for **all** testing laboratories testing fresh concrete produced according to ASTM C-94, *"Ready-Mixed Concrete"*.

AASHTO R18

209 Peru Road Groton, NY 13073 (607) 898-9767 FAX (607) 898-9176

F-5

SEPTIC SYSTEM PERCOLATION TEST RESULTS

O'BRIEN & GERE

RECEIVED
NOV 2006
SYRACUSE

November 29, 2006

Mr. James M. O'Loughlin
Project Manager
Parsons
290 Elwood Davis Road,
Liverpool, NY 13088

Re: Septic System Imported Material
Percolation Test Results

File: 8653/36252 #2

Dear Mr. O'Loughlin,

This letter presents the perk test evaluation of the imported septic sand material located at the Richardson Hill Road Landfill Site in the Town of Masonville, New York. The perk tests were conducted on November 21, 2006 at your request to assess the rate of percolation of the septic sand imported to the site and installed within the leach field of the septic system as presented on the septic system design drawing dated 6/13/03.

Septic System Background Information:
The current septic system services a single bathroom containing a toilet and a sink located in the existing treatment facility. The treatment facility typically has one or two operators that run the water treatment processes on a daily basis. Based on the design drawing, the existing septic system consists of a 1000-gallon septic tank that drains by gravity to a pair of leach field pipes located within the existing leach field.

The current leach field was designed as a shallow trench system, which consists of imported septic sand (sandy loam material) and topsoil placed on existing soil. Based on the design drawings and observations by O'Brien & Gere, approximately two feet of homogeneous septic sand was imported and placed within the leach field.

Perk Tests Evaluation Results:
O'Brien & Gere conducted a total of three perk tests on the existing leach field servicing the facility referenced above. The perk tests, 1 through 3, were performed at a depth of 24 inches, 18 inches, and 14 inches below the existing grade, respectively. The perk tests were conducted in accordance with the protocol presented in the Individual Residential Wastewater Treatment Systems Design Handbook 1996, NYSDOH. The results of the perk tests were as follows:

PERK TEST RESULTS Conducted on November 21, 2006			
Run	Perk 1 (Minutes/Inch) Depth (24 inches)	Perk 2 (Minutes/Inch) Depth (18 inches)	Perk 3 (Minutes/Inch) Depth (14 inches)
1	11.5 – 12	12.5 –13	12.5 –13
2	12.5 – 13	12.5 –13	12.5 –13
3	12.5 – 13	12.5 –13	12.5 –13
4	12.5 –13	12.5 –13	12.5 –13
5	12.5 –13	12.5 –13	12.5 –13

Note: The percolation test results between each test location varied within 10 to 15 seconds of each other

Conclusions:
Based on the uniformity of the percolation test results and observations made, the septic sand material imported to the site and used in the construction of the septic system leach field appears to be uniform and homogeneous. The imported septic sand material percolation test results are within the required 5 to 30 minutes per inch percolation rate, presented in New York State Department of Health Administrative Rules and Regulations design standard (10NYCRR Appendix 75-A).

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.

James R Heckathorne, P.E.
Vice President

I:/Div83/projects/8653-Parsons Eng./36252/2-Corr/RHRLF Perk Test Letter Report.doc

cc: Steve Miller, P.E. – Parsons
Dave Farber – O'Brien & Gere

F-6

EMERGENCY DIESEL GENERATOR TEST REPORTS

SPECTRUM Joe

CUST P.O. FA208286
PENN POWER-PHILADELPHIA

Senco PC2570F

Certified Generator Set
Test Record

Model 275DSE Serial Number 0751981

Specification Number GM13659-GA3S

Type of Fuel DIESEL Engine Serial 06R0720393

	Volts	Amperes	Watts	Hertz
1 Light	484.	--	--	60.0
1/4 Load	482.	102.00	68038.	60.0
1/2 Load	481.	207.00	137619.	60.0
3/4 Load	480.	312.00	206475.	60.0
Full Load	479.	419.00	276361.	60.0

Power Factor .80

Altitude 600' Temperature 77.°

Tested by -- 2575

Date Tested -- 01/10/2003

We hereby certify that the results listed were developed during the actual factory test of the generator set indicated.

Cheryl Schallock

Certified Correct
SPECTRUM, SHEBOYGAN WISCONSIN

cc: Joe

DETROIT DIESEL SPECTRUM.

Startup Notification

Follow the startup checklist on the back of this form. Then complete the form. This form is required for coverage under the Detroit Diesel Spectrum limited warranty and must be completely filled out at the time of initial startup. The distributor and owner representative must sign the notification form. **Signing this form represents acceptance of the unit and that all information on the startup form is correct.** Return a copy of the completed form to Detroit Diesel Spectrum within 60 days of the startup date.

Startup Date mo. 6 day 2 yr. 02

Authorized Spectrum Representative Performing Startup

Telephone: 315-451-9838
Company Name: Penn Power
Address: 7044 Interstate Island Rd
City: Syracuse
State: NY
ZIP/Postal Code: 13209
Country: USA

Owner Name/Unit Location

Telephone: 607-369-4530
Company Name: Amphenol
Address of Unit Location: 2211 Richardson Hill
City: Sidney Center
State: NY
ZIP/Postal Code: 13839
Country: USA
Round-trip miles from nearest authorized Detroit Diesel Spectrum servicing distributor to the power system equipment:

Generator Set and Engine Nameplate Information

	Generator Set No. 1	Engine No. 1	Generator Set No. 2	Engine No. 2
Serial No.	0751981	06R0720393		
Model No.	275 DSE	6063MK35		
Spec No.	GM13659-GA3S	[redacted]		[redacted]

Application Information (one item in each column must be checked)

☑ Industrial	☐ Mobile	☐ Prime
☐ Residential/Commercial	☑ Stationary	☐ Rental
		☑ Standby

Transfer Switch, Switchgear, and UPS Nameplate Information

	ATS No. 1	ATS No. 2	ATS No. 3	ATS No. 4	Switchgear	UPS*
Serial No.	ZTG4K40ES12-7					
Spec No.						[redacted]
Contactor Serial No.	1414008					
Model No.	[redacted]					

* Fill out the UPS G31-25 Installation, G31-21 Prestart, and G31-22 Startup Checklists

Detroit Diesel Spectrum Representative's Name (print)	Owner Representative's Name (print)
Steve Boos	Thomas R Davis
Detroit Diesel Spectrum Representative's Signature and Date mo. 4 day 2 yr. 03	**Owner Representative's Signature and Date** mo. 6 day 2 yr. 02

Form Distribution:

Mail WHITE copy to:
Detroit Diesel Spectrum
N7650 County Trunk LS
Sheboygan, WI 53083

PINK copy: Distributor

YELLOW copy: Owner's Representative

SUBJECT _____ BY _____ DATE _____

_____ SHEET NO. _____ of _____

_____ PROJECT _____

Where to look for Specifications for Switchgear

What will I look for:

1. Turn off generator
2. Turn off main power to disconnect of utility
3. Insert handle on switch on the switchgear door
4. Turn on generator circuit breaker

Philadelphia
5350 State Road
Philadelphia, PA 19135-2981
215-335-5810 Fax: 215-335-2163

Pittsburgh
2160 Route 19
Cranberry Twp., PA 16066-5808
724-631-1260 Fax: 724-631-1206

York Haven Harrisburg
355 Pine Road
York Haven, PA 17370-9185
717-278-4544 Fax: 717-278-5106

PENN POWER SYSTEMS
Power Generation Systems Specialists
www.pennpowersystems.com

Buffalo
450 Godfrey Avenue
Buffalo, NY 14215-4737
716-822-0051 Fax: 716-826-4511

Rochester
165 Hedtemann Blvd.
Rochester, NY 14615-3203
585-232-8530 Fax: 585-253-7074

Syracuse
7011 Interstate Island Road
Syracuse, NY 13209-9799
315-451-3830 Fax: 315-461-8602

24 HOUR EMERGENCY SERVICE

Switch Gear
Load Testing
Generator Sets
Fire Pumps
Transfer Switches

SALES ☆ RENTALS
PARTS ☆ SERVICE

Repair Order _____ Date 05 DEC 06

Customer Amphenol

Address _____ City _____ State _____ Zip _____

Contact _____ Phone _____

Type Equip. ATS - Exercise Clock Make Grässlin Model DIGI 42/2-L

Serial # _____ Spec # _____ Hrs. 267.1 (GEN)

Job Location _____

Complaint Customer attempted to change exercise time, but instead caused gen operation (indefinite due to settings)

Called to site to reset clock, exerciser. Set for Tuesdays @ 8:00 AM to 8:30 AM.

Customer also requested observation of 1/2" difference in level on genset structure/enclosure, showing equal declination front to back, no indication of torsional stress (undue) can be observed, concluding that this condition will affect operation of unit.

PARTS USED	
QTY	P/N

FIELD SERVICE TRAVEL/LABOR INFORMATION

	MILEAGE	TIME
Left Shop		
Arrived Job		
Left Job		
TOTAL		

I hereby authorize the above repair work to be done along with the necessary material, and hereby grant you and/or your employees permission to operate the equipment for the purpose of testing or inspection. The repairer is not responsible for loss or damage to the equipment in case of fire, theft, or other causes beyond its control.

In the event litigation is started for collection of payment for these repairs I consent to the jurisdiction of the Court of Common Pleas of Philadelphia County and, hereby, appoint the PA Secretary of the Commonwealth as my agent to accept service of legal process.

Penn Power Systems offers no opinion of a professional nature including but not limited to the preparation or approval of plans opinions, reports, surveys, designs, specifications and/or supervisory inspection, or engineering services provided by others.

PENN WILL DISCARD OLD PARTS.

Customer Signature _____ Date 12-5-06

Service Representative _____ Date 05 DEC 06

I spoke with Mike (315-447-8059), the technician from Penn Power Systems who attended to the generator on Dec 5, 2006 and filled out the repair order, above. He confirmed that the generator mounting rails all lie perfectly in the same plane, which is tilted ½" toward the front, but that the frame itself is not twisted. Since the mounting surface itself is perfectly flat, there is no torsional stress between the generator and motor. Therefore there is no effect on operation. 12/6/06

F-7

FIRE ALARM TEST REPORT

Syracuse Time & Alarm Co., Inc.

Page ___ of ___

FIRE ALARM INSPECTION & TESTING REPORT

Corporate Office: 2201 Burnet Ave., Syracuse, NY 13206 · Ph. 315-463-1234 or Fax 315-463-5036
Branch Office: 801 Smith Hill Rd., Binghamton, NY 13905 · Ph. 607-722-8200 or Fax 607-722-2124
Toll Free 1-800-762-2667 · E-mail Service@syrtime.com · www.syrtime.com

"Our Concern Makes The Difference"

WO

Customer	Date	Billable	Contract	Warranty	Installation	Other

Address	Worksite Location	Start Time	Finish Time

City	State	Zip	Address	City	State	Zip

Phone	Panel Location	Phone

Item	# Devices	# Tested	✓ OK	X Remarks	Model	Serial #
Control Panel						
Manual Station						
Heat Detector						
Smoke Detector						
Duct Detector						
Beam Detector						
Signal Device						
Visual Device						
HVAC Shutdown						
Smoke Hatch						
Door Holder						
Annunciator						
City Connection						
Battery					Stand By Current	Alarm Current
Charger					Charging Voltage	Charging Current

Test Received @	by	Time	Primary Power	Type	Amps	Location

Remarks / Parts Used / Etc.

The sole responsibility of SYRACUSE TIME & ALARM CO., INC. is to inspect and test the above listed equipment. Your company hereby agrees that no warranties expressed or implied would impose upon SYRACUSE TIME & ALARM CO., INC. any other obligation or liability. SYRACUSE TIME & ALARM CO., INC. neither assumes nor authorizes anyone to

Syracuse Time & Alarm Co., Inc.

FIRE ALARM INSPECTION & TESTING REPORT

Main Office: 2201 Burnet Ave., Syracuse, NY 13206 - Ph. 315-433-1234 or Fax 315-463-5006
Branch Office: 301 Smith Hill Rd., Binghamton, NY 13905 - Ph. 607-722-3200 or Fax 607-722-2124
NY State 1-800-762-2667 - E-Mail Syrtime@aol.com

Office Use Only ☐ ☐

ST: FIRE ALARM

Customer	Date	Billable	Contract	Warranty	Installation	Other
MATCO ELECTRIC	2/28/03				✓	

Address	Installation Location	Start	Finish
320 N. JEMSON RD	SIDNEY GROUNDWATER TRANSMENT PLANT	10.0 -	12.45

City	State	Zip	Address	City	State	Zip
VESTAL, NY		13850	RICHARDSON HILL, SIDNEY	NY		13838

Phone	Panel Location	Phone
607 729-4921	OFFICE / ELECTRICAL RM	

Item	No. Of Devices	No. Tested	Ok	x See Below	Model	Serial No.
Control Panel	1	1	✓		FC 2224	
Manual Station	3	3	✓		MS-2	
Heat Detector	2	2	✓		601	
Smoke Detector	1	1	✓		301 PL W/ 301BL BASES	
Duct Detector						
Beam Detector						
Signal Device	3	3	✓		P2411OK	
Visual Device	1	1	✓		S2411O	
HVAC Shutdown	1	1	✓			
Smoke Hatch						
Door Holder						
Annunciator						
SERIAL BOARD	1	1	✓		FC-2884	
City Connection DIGITAL COMM	1	1		X'	FC2104	
Battery	2	2	✓		12V 7.2AH	Stand By Amps .141A / Alarm Amps .99A
Charger	1	1	✓		INTERNAL	Volts 27.23 / Amps 34.5MA

Test Received @	by	Yes	No	Primary Power	Type	Amps	Location
				120V		20A	RP1-CIR40

Remarks / Parts Used / Etc X1 NO PHONE LINES OR MONITORING CONTRACT

100% FUNCTION AND TROUBLE TESTED INITIATING DEVICES
100% FUNCTION TESTED AND 50% TROUBLE TESTED SIGNAL DEVICES

SYSTEM NORMAL

The sole responsibility of SYRACUSE TIME & ALARM CO., INC. is to inspect and test the above listed equipment. Your company hereby agrees that no warrantees expressed or implied would impose upon SYRACUSE TIME & ALARM CO., INC. any other obligation or liability. SYRACUSE TIME & ALARM CO., INC. neither assumes nor authorizes anyone to assume for it any such other obligation or liability.
In signing this Equipment Testing Report, you agree that you have read and understand the terms and conditions as found on the front and back of this form.

Customer's Authorized Signature Tom Ramsey STA Representative John S. Hawley

White - Office Yellow - Customer Pink - Panel Copy

STA 161 4/01

F-8

COMPRESSOR TEST RESULTS

INGERSOLL-RAND
AIR COMPRESSORS

AIR CENTER
28 CORPORATE CIRCLE, SUITE 2
E. SYRACUSE, NY 13057

Phone (800) 643-9673

SERVICE WORK ORDER

SLS TE	IR ORDER NO.	BILL TO CUSTOMER NO.	CUSTOMER ORDER NO.	ORDER DATE	PRIORITY	PARTS	O/T
024	[illegible]		[illegible]	[illegible]	S(STD) / R(RUSH) / E(EMER)	Y/N	R

DATE	TIME	REQUESTER	PHONE #	EXT.	MFG.	MODEL	SERIAL #	SIZE	HP
04/08/03	9:57 AM	Mike Gerber	607-340-5455		IR	UP6-25-125	CX0072(07)22		

BILL TO

CUSTOMER DESCRIPTION OF PROBLEM:
Startup of new Air Compressor

Mike Gerber and Tom Davide are with Sanco Technologies

SHIP TO #

JOB SITE ADDRESS
Amphenol Richardson Hill Road Facility
Richardson Hill Road
Sidney Center, NY 13839

HOURMETER TOTAL	HOURS LOADED	VOLTAGE	NAMEPLATE AMP	OIL TYPE	OPERATING PSI
40 min	34 min.	480			

REQUESTED DATE FOR SERVICE TECH.	TIME:	OVERTIME AUTHORIZED	PREMIUM FRT. AUTHORIZED
	0000	N	N

RENTAL REQUIRED Y/N	RENTAL CFM/HP	RENTAL VOLTAGE	RENTAL PRESSURE

POSSIBLE WARRANTY	TYPE OF CALL	SALESPERSON	SALES #	SALES %
N	Startup			

DIRECTIONS TO JOB SITE

CARRIER: IRT OR
FRT. TERMS: PLOR
PAY TERMS: 01-(NET 30)
SALES TAX

CREDIT APPROVAL
BY: DATE:

T & C APPROVAL
BY: DATE:

AR59 #

Mike Gerber — PRIMARY CONTACT — PHONE
Tom Davide — SECONDARY CONTACT — PHONE
LOCKOUT/TAGOUT:

OUTSIDE PO #	OUTSIDE PO #	OUTSIDE PO #	TECHNICIAN	EST. OR. VALUE
				FREIGHT

PARTS STOCK ORDERS — NO. — NO. — NO.

LINE	QTY REQ'D	CCN NUMBER	PART NO./DESCRIPTION	Warranty	BIN LOC. OP D/N	SHIP FROM	QTY. OUT	BY	QTY. USED	QTY. RET. TO STOCK	BY	UNIT PRICE	EXTENDED PRICE
1													
2													
3													
4													

DAY Wed
DATE 4/9/03

DESCRIPTION OF WORK PERFORMED AND COMMENTS:
Performed startup on UP6-25.
Had to loosen motor-A/E base & align fan with sheave.
Rubbing. Unit good to go. Started TS-100 degs.
P/N DR100137G-08110G2, indicator is green, fan
cycling. IRGP123 filter installed before dryer.

HOURS LABOR

REG.	O.T.	DBL. T.	MEALS	LODGE	MILE
					100

TIME

START	ARRIVE	DEPART	STOP
10A			3P

SERVICEMAN'S SIGNATURE: X [signature]

ACCEPTED PER TERMS AND CONDITIONS ON REVERSE SIDE:

CUSTOMER'S SIGNATURE X [signature]

DATE JOB COMPLETED: 4/9/03

ACCEPTED PER TERMS AND CONDITIONS ON REVERSE SIDE:

[signature]
CUSTOMER'S SIGNATURE

TEXT COMMENTS:
Notes 1
Notes 2

			TOTAL
REGULAR LABOR	(S	(1) @ $ /HR	
OVERTIME LABOR	(S	(2) @ $ /HR	
DOUBLETIME LABOR	(S	(3) @ $ /HR	
TOTAL MILES	(S 2109)	@ MI	
TOTAL LODGING	(S 2107)		
TOTAL MEALS	(S 2108)		
OSHA-EPA WASTE MATERIAL DISP.	(S 9962)		
WASTE OIL DISP. SHOP SUPPLIES	(S 9964)		
OSHA -EPA MANAGEMENT	(S 9966)		
FREIGHT CHARGES	(S 9910)		

PRODUCT CODE: 2681 000932

SUB TOTAL $
PARTS $
TAX $
FINAL TOTAL $

Ingersoll-Rand. Maintenance & Start-up Checklist – ROTARY

☒ Start-up ☐ AirCare ☐ PM ☐ Inspection

Date of Inspection: 4 / 9 / 03
Customer Name: Samco
Customer Address:
Distributor / Air Center: Syracuse 115

Compressor Type: **Rotary Contact Cooled**
Model No.: UP6-25-125 Size (HP): 25
Serial No.: PX0902U02322
Work Order No.: 115764189

General Inspections (Check & Record, If Applicable)

OK — Fixed/Changed/Cleaned During Visit — Still Requires Repair/Changing/Cleaning

1.	☒	☐	☐	Total Running Hours / Loaded Hours: 40 min / 34 min
2.	☒	☐	☐	Package Discharge Press (Off Line / On Line): 128 / 115
3.	☒	☐	☐	Full Load Package Discharge Temp (°F / °C): 75
4.	☒	☐	☐	Full Load Airend Discharge Temp (°F / °C): 185
5.	☐	☐	☐	Full Load Injection Coolant Temp (°F / °C): 153
6.	☒	☐	☐	Unloaded Sump Press (PSIG / Barg G): 23
7.	~~☐~~	~~☐~~	~~☐~~	~~Unloaded Inlet Vacuum (PSIG / BarG)~~
8.	☒	☐	☐	Inlet Filter Condition
9.	☒	☐	☐	Last Inlet Filter Change (Date): New (Hours)
10.	☒	☐	☐	Check Coolant Level
11.	☒	☐	☐	Inspect for Coolant Leaks
12.	☒	☐	☐	Coolant Filter change at: 2000 hr or 1 year (whichever is 1st)
13.	☒	☐	☐	Full Load Separator Press Drop (PSIG / BarG): 3
14.	☒	☐	☐	Date of Last Separator Element Change: New
15.	☒	☐	☐	Inspect and Clean Scavenge Orifice and Screen
16.	~~☐~~	~~☐~~	~~☐~~	~~Inspect and Clean Gearcase Breather~~
17.	☒	☐	☐	Room Ambient Temperature (°F / °C): ≈70°
18.	☒	☐	☐	Thermostatic Control Valve Temp (°F / °C) Port A: 156 B: [illegible] C: 120
19.	☒	☐	☐	Belts Tight and in Good Condition
20.	☒	☐	☐	Idler Pulley Condition
21.	☒	☐	☐	Inspect for Air Leaks
22.	☒	☐	☐	Inspect All Air Cooled Cooler Cores
23.	☒	☐	☐	Inspect and Clean Condensate Drain
24.	☒	☐	☐	Inspect Main and Fan Motors
25.	☒	☐	☐	Last Main Motor Grease (Date): Startup (Hours)
26.	~~☐~~	~~☐~~	~~☐~~	~~Last Fan Motor Grease (Date) (Hours)~~
27.	~~☐~~	~~☐~~	~~☐~~	~~Cooling Water Inlet - Water Cooled (Temp) (Press)~~
28.	~~☐~~	~~☐~~	~~☐~~	~~Cooling Water Discharge-Water Cooled (Temp) (Press)~~
29.	☒	☐	☐	Safety Valve Checked Nameplate PSI/Bar _____ Flow _____

Electrical Inspection

(Check and Record the Following)

OK — Fixed During Visit — Still Requires Repair

30.	☒	☐	☐	Voltage (Full Load): A 489 B 490 C 486 / D 282 E 280 F 278
31.	☐	☐	☐	Voltage (No Load): A 490 B 493 C 483 / D 280 E 282 F 278
32.	☒	☐	☐	Motor Amperage (Full Load): T1/U 36 T2/V 33 T3/W 30
33.	☒	☐	☐	Motor Amperage (No Load): T1/U 20 T2/V 20 T3/W 18
34.	☒	☐	☐	Voltage Drop Across Starter: L1 0 L2 0 L3 0
35.	☒	☐	☐	Total Pkg Amps (Full Load): L1 31 L2 35 L3 30
36.	☒	☐	☐	Motor Nameplate Data: (HP / kW) 25 / RPM _____ V _____ A _____
37.	☒	☐	☐	Inspect Contactors
38.	☒	☐	☐	Check Electrical Connections
39.	☒	☐	☐	HAT Operating Temp (°F / °C)

Diagnostic Inspections

FLUID (Req. for AIRCARE)

40.	~~☒~~	Coolant Type: ULTRA PLUS
41.	☒	Last Coolant Change (Date) (Hours): Startup
42.	~~☐~~	~~Coolant Analysis sample taken~~ Every 2000 hr or 1 year (whichever 1st)
43.	~~☐~~	~~Condensate Analysis (Optional)~~

VIBRATION (Req. for START-UPS and AIRCARE)

IR30 Shock Pulse Readings (One Stage) (- - - - - Two Stage - - - - -)

		MBR	MR1	MR2	LPM1	LPM2	HPM1	HPM2
44.	☐ Loaded (dBm)							
45.	☐ Unloaded (dBm)							

AIR QUALITY (Optional, use only if suspected Air Quality issues)

46. ☐ Test via Coupon (metallic strips) _____
47. ☐ Test with OnGuard 2000 Electronic Analysis _____

Start-up Checklist (ONLY for Initial Start-up)

Date of Start-up: 4 / 9 / 03

	Yes	No		
1.	☒	☐	Paint Finish Acceptable	
2.	☐	☒	Missing Electrical or Parts	
3.	☐	☒	Damaged Metal / Cover	
4.	☒	☐	Chemical / High Dust area?	
5.	☐	☒	Unit Outdoors	
6.	☐	☐	If Outdoors, MOD included?	
7.	☒	☐	Other	Fan rubbing on Shroud
8.	☐	☐	Other	Adjusted Motor base to Align
9.	☐	☐	Other	
10.	☒	☐	Does Customer Have Adequate Spare Parts? If NO, enter spare parts recommendations below.	

Yes	No	
☐	☐	**Is there any additional maintenance Needed?**
☐	☐	**If Yes, Is it Urgent?**

Recommendations:

Inspected By: [signature] Cert. #M139028416 3D
(Serviceman's Signature)

Reviewed By: _____ _____
(Customer's Signature) (Customer's Title)

For Start-up Only:

This form must be completed and submitted to IR within 30 days of start-up to register unit for warranty.

Copies: Original to be retained by the Distributor / Air Center
2nd Copy to remain with the Customer
1 Copy to be submitted to IR for start-ups only to:
Attn: Warranty Manager
IR Air Solutions Group
PO Box 1803, Davidson NC, 28036
APDD 794A
80440571

493 495 4816 must add

F-9

GWTP PIPE PRESSURE TEST RESULTS

MECHANICAL INCORPORATED
EVANS
Specializing in Plumbing and Heating Installation
314 Maple Street • Endicott, New York 13760
excellence@evansmech.com

Office
(607) 754-2002

Fax
(607) 754-9246

T-1	4-18-03	OK
T-5	4-23-03	OK
T-11	4-24-03	OK
T-13	4-24-03	OK
T-15	4-24-03	OK

April 10, 2003

Mr. Tom Davide
SAMCO Technologies, Inc.
160 Wales Ave.
P.O. Box 906
Tonawanda, New York 14150-0906

Re: Richardson Hill Road

Subject: Proposed hydrostatic testing procedure.

Pipe line	Duration	Test pressure	Medium
3" precoat skid to press	30 minutes	50 PSI	Water
2" T6 to pre coat skid	"		
½" T6 polymer	"		
2" recovery well T1 to wells	"		
3" caustic fill to T9	"		
3" fill to T16	"		
½" acid from skid to point of use	"		
½" caustic from skid to point of use	"		
½" PAC from skid to point of use	"		
½" polymer from skid to pint of use	"		
4" backwash to T1	"		
2" sump pump discharge	"		
2" T1 sump discharge	"		
P-14 recirc line	"		
1" plant water	"		
Potable water	"		
3" from skid 5 to carbon skid	"		
3" collection sump line to T1	"		
3" from t-1 to P-1/P-2	30 minutes	50 PSI	Water
Compressed air piping	30 minutes	~~50~~ 125 PSI	Air

OK 4-18-03 to 4-21-03 — 3" precoat skid to press
OK 4-16-03 To 4-17-03 — 2" recovery well T1 to wells
4-20-03 OK — 3" caustic fill to T9
5-22-03 OK — ½" acid from skid to point of use
OK 4-18-03 1:00 - 4:00 — 4" backwash to T1
4-24-03 — 1" plant water
4-22-03 OK — Potable water
4-22-03 OK — 3" from skid 5 to carbon skid
4-18-03 OK — 3" from t-1 to P-1/P-2
OK 4-9-03 To 4-10-03 — Compressed air piping

4-22-03 OK — 2" From P-7 To RTu + T-6

3" From Skid 5 + T-5 To AS-1 ← Leak on filters need Repair

Office
(607) 754-2002

Fax
(607) 754-9246

MECHANICAL INCORPORATED
EVANS
Specializing in Plumbing and Heating Installation
314 Maple Street • Endicott, New York 13760

Pressure Testing Form

Project Name - Richardson Hill GWTP

Evans Proj. No. - 02-332

Start 8:00 AM End 3:00 PM

Date - 5-22-03 5-22-03

	Service	Bldg/Floor/Col	Medium	Test Pressure
½"	Pac Skid #1	To RTU	Air	50 LBS OK
½"	Acid Skid #2	To O.W.S.	Air	50 LBS OK
½"	Acid Skid #2	To R.T.U.	Air	50 LBS OK
½"	Acid Skid #2	To T-14	Air	50 LBS OK

Remarks:

Contractor Foreman: Keith Snyder Date: 5-22-03

Owner/Engineer Rep: Matthew D. Millias Date: 5/22/03

Office
(607) 754-2002

Fax
(607) 754-9246

MECHANICAL INCORPORATED
EVANS
Specializing in Plumbing and Heating Installation
314 Maple Street • Endicott, New York 13760

Pressure Testing Form

Project Name - Richardson Hill GWTP

Evans Proj. No. - 02-332

START = 8:30 AM End = 3:00 PM

Date - 5-16-03 5-16-03

	Service	Bldg/Floor/Col	Medium	Test Pressure	
½"	Caustic Skid #1	To R.T.U.	Air	50 LBS	4-24-03 Failed
½"	Caustic Skid #1	To O.W.S.	Air	50 LBS	
½"	Caustic Skid #1	To T-14	Air	50 LBS	
3"	Skid #5 water	To AS-1 inlet	water	56 LBS	4-22-03 Failed

Remarks:

Contractor Foreman: Keith Snyder Date: 5-16-03

Owner/Engineer Rep: Edward Rudy Date: 5-16-03

Office
(607) 754-2002

Fax
(607) 754-9246

MECHANICAL INCORPORATED
EVANS
Specializing in Plumbing and Heating Installation
314 Maple Street • Endicott, New York 13760

Pressure Testing Form

Project Name - Richardson Hill GWTP

Evans Proj. No. - 02-332

Date - 4-24-03

Service	Bldg/Floor/Col	Medium	Test Pressure
T-5 4-23-03	inside	water	Full OK
T-7 4-24-03	inside	water	Full OK
T-11 4-24-03	inside	water	Full OK
T-13 4-24-03	inside	water	Full OK
T-1 4-18-03	outside	water	Full OK
T-15 4-24-03	inside	water	Full OK

Remarks:

Contractor Foreman: Keith Snyder Date: 4-24-03

Owner/Engineer Rep: Edward Rudy Date: 4-24-03

1515

Office
(607) 754-2002

Fax
(607) 754-9246

MECHANICAL INCORPORATED
EVANS
Specializing in Plumbing and Heating Installation
314 Maple Street - Endicott, New York 13760

Pressure Testing Form

Project Name - Richardson Hill GWTP

Evans Proj. No. - 02-332

Start 11:00 AM End 3:00 PM

Date - 4-24-03 4-24-03

Service	Bldg/Floor/Col	Medium	Test Pressure
Plant water	inside	water	55 LBS OK
			Start End
Skid #1	inside	Air	50 LBS 30
			Start End
Skid #2	inside	Air	50 LBS 20

Remarks:

Contractor Foreman: Keith Snyder Date: 4-24-03

Owner/Engineer Rep: Edward Purdy Date: 04-24-03

1515

Office
(607) 754-2002

Fax
(607) 754-9246

MECHANICAL INCORPORATED
EVANS
Specializing in Plumbing and Heating Installation
314 Maple Street • Endicott, New York 13760

PHCC

Pressure Testing Form

Project Name - Richardson Hill GWTP

Evans Proj. No. - D2-332

Date - Start 4-16-03 End 4-17-03

Service	Bldg/Floor/Col	Medium	Test Pressure
Recovery well			
Pipe From well			
To Top of T-1	Inside + outside	Water	50 LBS

Remarks:

Contractor Foreman: Keith Snyder Date: 4-17-03

Owner/Engineer Rep: Matthew D. Millias Date: 4/17/03

Office
(607) 754-2002
Fax
(607) 754-9246

MECHANICAL INCORPORATED
EVANS
Specializing in Plumbing and Heating Installation
314 Maple Street • Endicott, New York 13760

PHCC

Pressure Testing Form

Project Name - Richardson Hill GWTP

Evans Proj. No. - 02-332

Date - Start 4-9-03 End 4-10-03

Service	Bldg/Floor/Col	Medium	Test Pressure
Compressed Air	WALL Pipe Bldg	Air	125 LBS

Remarks:

Contractor Foreman: Keith Snyder Date: 4-10-03

Owner/Engineer Rep: Matthew D. Millson Date: 4/17/03

Office
(607) 754-2002

Fax
(607) 754-9246

MECHANICAL INCORPORATED
EVANS
Specializing in Plumbing and Heating Installation
314 Maple Street • Endicott, New York 13760

PHCC

Pressure Testing Form

Project Name - Richardson Hill GWTP

Evans Proj. No. - 02-332

Date - Start 11:30 AM 4-18-03 End 10:00 AM 4-21-03

Service	Bldg/Floor/Col	Medium	Test Pressure
3" Precoat Skid	inside	water	70 LBS
To F. Press			
2" T-6 To Pre	"	water	70 LBS
Coat Skid			

Remarks:

Contractor Foreman: Keith Snyder Date: 4-21-03

Owner/Engineer Rep: Edward Rudy Date: 4-21-03

Office
(607) 754-2002

Fax
(607) 754-9246

MECHANICAL INCORPORATED
EVANS
Specializing in Plumbing and Heating Installation
314 Maple Street • Endicott, New York 13760

Pressure Testing Form

Project Name - Richardson Hill GWTP

Evans Proj. No. - 02-332

Date - 4-18-03 Start 1:00 PM End 4: P.M 4-18-03

Service	Bldg/Floor/Col	Medium	Test Pressure
4" PVC Back	inside &	water	50 LBS
wash To T-1	outside		
2" Sump Pump Disch.	inside	water	50 LBS
2" Sump Pump Disch T-1	inside	water	50 LBS
2" R-14 Recirc Line	inside	water	50 LBS

Remarks:

Contractor Foreman: Keith Snyder Date: ~~04~~ 4-21-03

Owner/Engineer Rep: Edward Rudy Date: 04-21-03

Office
(607) 754-2002

Fax
(607) 754-9246

MECHANICAL INCORPORATED
EVANS
Specializing in Plumbing and Heating Installation
314 Maple Street • Endicott, New York 13760

Pressure Testing Form

Project Name - Richardson Hill GWTP

Evans Proj. No. - 02-332

Date - Start 9:AM 4-22-03 End 12:30 PM 4-22-03

Service	Bldg/Floor/Col	Medium	Test Pressure
3" From Skid	inside	water	50 Start
#5 & T-5 To			30 End
AS-1			

FAILED 04-22-03 EML

Remarks:

Contractor Foreman: Keith Snyder Date: 4-22-03

Owner/Engineer Rep: Edward Rudy Date: _____

04-22-03

Office
(607) 754-2002

Fax
(607) 754-9246

MECHANICAL INCORPORATED
EVANS
Specializing in Plumbing and Heating Installation
314 Maple Street • Endicott, New York 13760

Pressure Testing Form

Project Name - Richardson Hill GWTP

Evans Proj. No. - 02-332

Date - 4-22-03 start 10: AM. End 4-22-03 2:30 PM

Service	Bldg/Floor/Col	Medium	Test Pressure
Potable water	inside	water	70 LBS
3" From skid	inside	water	50 LBS
#5 To carbon			
skid			
2" From P-7	inside	water	50 LBS
To RTU #			
T-6			

Remarks:

Contractor Foreman: Keith Snyder Date: 4-22-03

Owner/Engineer Rep: Edward Rudy Date: 04-22-03

Office
(607) 754-2002

Fax
(607) 754-9246

MECHANICAL INCORPORATED
EVANS
Specializing in Plumbing and Heating Installation
314 Maple Street • Endicott, New York 13760

PHCC

Pressure Testing Form

Project Name - Richardson Hill GWTP

Evans Proj. No. - 02-332

Date - 4-18-03 Start 9:00 AM End 2:30 PM 4-18-03

Service	Bldg/Floor/Col	Medium	Test Pressure
3" From & To	Inside &	water	50 LBS
T-1 To P-1/P-2	out side		

Remarks:

Contractor Foreman: Keith Snyder Date: 4-18-03

Owner/Engineer Rep: Edward Reedy Date: 04-22-03

Office
(607) 754-2002

Fax
(607) 754-9246

MECHANICAL INCORPORATED
EVANS
Specializing in Plumbing and Heating Installation
314 Maple Street • Endicott, New York 13760

PHCC

Pressure Testing Form

Project Name - Richardson Hill GWTP

Evans Proj. No. - 02-332

Start 10:AM End 2:00 PM

Date - 4-24-03 KS 4-24-03 KS

Service	Bldg/Floor/Col	Medium	Test Pressure
3" Caustic Fill	Inside	water	50 LBS
To T-9			
3" Fill To	inside &	water	50 LBS
T-16	outside		

Remarks:

Contractor Foreman: Keith Snyder Date: 4-20-03

Owner/Engineer Rep: Edward Rudy Date: 4-22-03

Office
(607) 754-2002

Fax
(607) 754-9246

MECHANICAL INCORPORATED
EVANS
Specializing in Plumbing and Heating Installation
314 Maple Street • Endicott, New York 13760

PHCC

Pressure Testing Form

Project Name - Richardson Hill GWTP

Evans Proj. No. - 02-332

Date - Start 4-9-03 End 4-10-03

Service	Bldg/Floor/Col	Medium	Test Pressure
Compressed Air	WALL Pipe Bldg.	Air	125 LBS

Remarks:

Contractor Foreman: Keith Snyder Date: 4-10-03

Owner/Engineer Rep: Matthew D. Millias Date: 4/17/03

Office
(607) 754-2002

Fax
(607) 754-9246

MECHANICAL INCORPORATED
EVANS
Specializing in Plumbing and Heating Installation
314 Maple Street - Endicott, New York 13760

PHCC

Pressure Testing Form

Project Name - Richardson Hill GWTP

Evans Proj. No. - 02-332

Date - Start: 4-16-03 End: 4-17-03

Service	Bldg/Floor/Col	Medium	Test Pressure
Recovery well			
pipe From well			
To Top of T-1	inside + outside	water	50 LBS

Remarks:

Contractor Foreman: Keith Snyder Date: 4-17-03

Owner/Engineer Rep: Matthew D. Millias Date: 4/17/03

Office
(607) 754-2002

Fax
(607) 754-9246

MECHANICAL INCORPORATED
EVANS
Specializing in Plumbing and Heating Installation
314 Maple Street • Endicott, New York 13760

PHCC

Pressure Testing Form

Project Name - Richardson Hill GWTP

Evans Proj. No. - 02-332

Date - Start 1-21-03 To End 1-22-03

Service	Bldg/Floor/Col	Medium	Test Pressure
L.P. Gas Pipe			
To U.H 1-4	1ST FL.	Air	40 LBS
Bathroom Pipe	North West	Air	100 LBS

Remarks:

Contractor Foreman: Keith Snyder Date: 1-22-03

Owner/Engineer Rep: Matthew D. Millar Date: 1/27/03

Office
(607) 754-2002

Fax
(607) 754-9246

MECHANICAL INCORPORATED
EVANS
Specializing in Plumbing and Heating Installation
314 Maple Street • Endicott, New York 13760

Pressure Testing Form

Project Name - Richardson Hill GWTP

Evans Proj. No. - 02-332

	Start	End
Date -	12-13-02	12-13-02
	1000	1330

Service	Bldg/Floor/Col	Medium	Test Pressure
2- 3" S.S. lines T-1 into Bldg.	South Middle	Air	50 LBS

Remarks:

Contractor Foreman: Keith Snyder Date: 12-13-02

Owner/Engineer Rep: Edward Rudy Date: 12-13-02

Office
(607) 754-2002

Fax
(607) 754-9246

MECHANICAL INCORPORATED
EVANS
Specializing in Plumbing and Heating Installation
314 Maple Street • Endicott, New York 13760

Pressure Testing Form

Project Name - Richardson Hill GWTP

Evans Proj. No. - 02-332

Date - Start 12-11-02 End 12-12-02

Service	Bldg/Floor/Col	Medium	Test Pressure
6" Effluent	out side North & west side Bldg	Air	5 LBS
4" Containment	out side west To Pull Box-1	Air	5 LBS
3" To T-1 From collection sump	out side west to P-B-1	Air	50 LBS

Remarks:

Contractor Foreman: Keith Snyder Date: 12-12-02

Owner/Engineer Rep: Edward Rudy Date: 12-12-02

Office
(607) 754-2002

Fax
(607) 754-9246

MECHANICAL INCORPORATED
EVANS
Specializing in Plumbing and Heating Installation
314 Maple Street • Endicott, New York 13760

Pressure Testing Form

Project Name - Richardson Hill GWTP

Evans Proj. No. - 02-332

Date - Start 12-4-02 End 12-5-02

	Service	Bldg/Floor/Col	Medium	Test Pressure
2"	well water	East outside Bldg	Air	50 LBS
2"	well water	East outside Bldg	Air	50 LBS
2"	well water	East outside Bldg	Air	50 LBS
2"	well water	East outside Bldg	Air	50 LBS
4"	containment To	East outside Bldg	Air	8 LBS
	PB-7			
3/4	L.P. Gas	East outside Bldg	Air	10 LBS

Remarks:

Contractor Foreman: Keith Snyder Date: 12-5-02

Owner/Engineer Rep: Edward Rudy Date: 12-5-02

Office
(607) 754-2002

Fax
(607) 754-9246

MECHANICAL INCORPORATED
EVANS
Specializing in Plumbing and Heating Installation
314 Maple Street • Endicott, New York 13760

Pressure Testing Form

Project Name - Richardson Hill GWTP

Evans Proj. No. - 02-332

Date - 11-20-02 (Start) 11-21-02 (End)

Service	Bldg/Floor/Col	Medium	Test Pressure
Sewer	Colm. A-5	water	10' water colm
2 3" S.S From T-1	Colm C-1	Air	50 LBS
6" Effluent	Colm B-5	Air	5 LBS

Remarks:

Contractor Foreman: Keith Snyder Date: 11-21-02

Owner/Engineer Rep: Edward Ludy Date: 11-21-02

Office
(607) 754-2002

Fax
(607) 754-9246

MECHANICAL INCORPORATED
EVANS
Specializing in Plumbing and Heating Installation
314 Maple Street - Endicott, New York 13760

Pressure Testing Form

Project Name - Richardson Hill GWTP

Evans Proj. No. - 02-332

Date - 11-15-02 Start 12:30 PM End 3:30 PM 11-15-02

Service	Bldg/Floor/Col	Medium	Test Pressure
Containment To Acid Bulk Storage	Colum. A-3	Air	5 LBS
PB-1			

Remarks:

Contractor Foreman: Keith Snyder Date: 11-15-02

Owner/Engineer Rep: Edward Rudy Date: 11-21-02

Office
(607) 754-2002

Fax
(607) 754-9246

MECHANICAL INCORPORATED
EVANS
Specializing in Plumbing and Heating Installation
314 Maple Street • Endicott, New York 13760

Pressure Testing Form

Project Name - Richardson Hill GWTP

Evans Proj. No. - 02-332

Date - 11-12-02 Start 2:00 PM 11-14-02 End 8:00 AM

	Service	Bldg/Floor/Col	Medium	Test Pressure
2"	Well Water	colm B-3	Air	50 LBS
2"	Well Water	Colm B-3	Air	50 LBS
2	Well Water	Colm B-3	Air	50 LBS
2	Well Water	Colm B-3	Air	50 LBS
4	Containment To Acid Storage	1ST Fl. colm A3	Air	5 LBS

Remarks:

Contractor Foreman: Keith Snyder Date: 11-14-02

Owner/Engineer Rep: Matthew D. Millus Date: 11-14-02