

**APPENDIX L**  
**PHOTOGRAPHS**

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## 1.) Subgrade Preparation



*Grading on South slope, near GV 57 area*

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## 2.) Gas Vent Installation



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### 3.) Geomembrane Installation



*Geomembrane panel P-165 at West slope*

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### 4.) Geomembrane Seaming

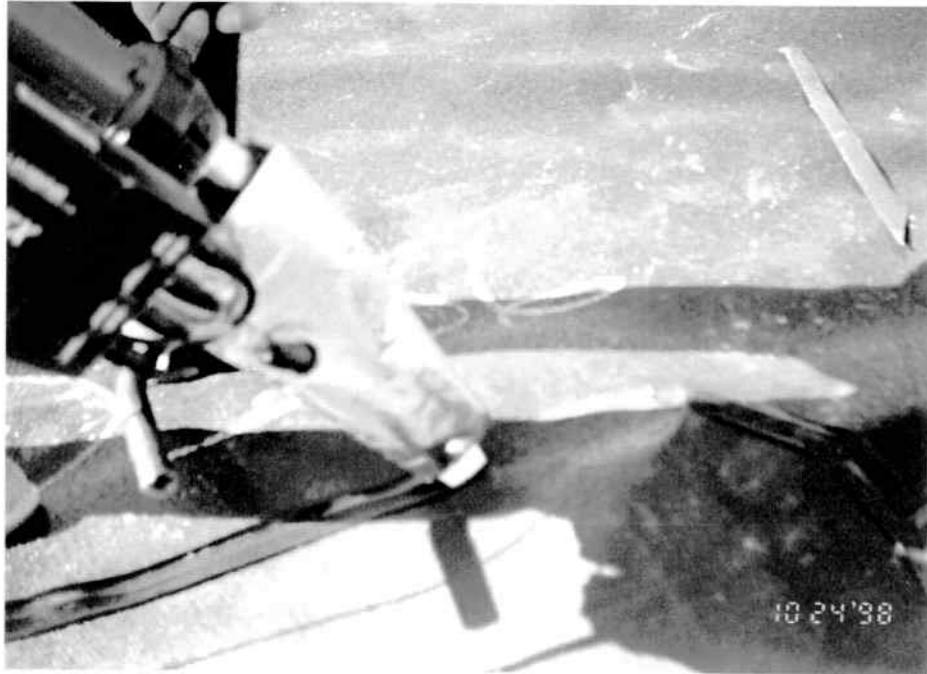


*Dual Hot Wedge Seamer – welding two geomembrane panels together*

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#### 4a.) Extrusion Weld On a Repair



*Extrusion welded geomembrane – Destructive Test D56*

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#### 5.) Barrier Protection Material



*Placing barrier protection material at SW corner of landfill*

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## 6.) Topsoil Placement



### 6a.) Topsoil Complete



*At East edge of landfill looking WSW over topsoil layer*

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## 7.) Erosion Control Material In Place



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### 7a.) Seeding



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**7b.) Grass Beginning to Grow**



*NE landfill slope*

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**8.) Wetland Created Immediately After Construction**



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8a.) Created Wetland with Early Growth



**APPENDIX M**  
**WARRANTIES**

No warranties available. The Town and Solmax are still in negotiation.

**APPENDIX O**

**LETTER TO NYSDEC REGARDING GEOMEMBRANE  
TESTING OF MATERIAL ABOVE GAS BUBBLE**

February 4, 1999

Mr. David Mt. Pleasant, P.E.  
NYSDEC - Region 5  
Hudson Street - P.O. Box 220  
Warrensburg, NY 12885-0220

Re: Gas Bubble Geomembrane Testing  
Town of Moreau Landfill Closure  
Contract No. 10  
S&W No. 70011.5

Dear Mr. Mt. Pleasant:

As discussed in our January 13, 1999 letter to your office, we have collected a sample of geomembrane from one typical bubble repair. This material was sent to an independent, off-site laboratory to evaluate its physical and mechanical characteristics. The results of the "bubbled" geomembrane testing are summarized in this letter.

J&L Testing Company (J&L) performed off-site laboratory testing of a sample of "bubbled" geomembrane. Our office performed a comparison of the test results with the QC geomembrane test results from the parent geomembrane. The results from the "bubbled" sample satisfied the specifications. Results from our sample were comparable to or exceeded the average values from QC testing of the parent material, except for puncture resistance. QC testing performed by Solmax utilized ASTM D4833. Our specifications specify and J&L utilized FTMS-101C, Method 2065. ASTM D4833 uses an 8-mm diameter probe with a 45 degree chamfered edge, which results in a 6.4-mm flat end. FTMS-101C, Method 2065 uses a steel rod, which tapers from 1/2-inch (12.7-mm) to 1/8-inch (3.2-mm). The smaller probe end used in the FTMS will result in the lower puncture values seen in the test data. However, these results do satisfy the specifications.

Based on the analysis of the "bubbled" geomembrane test results, stress/strain bubble modeling and the field applications conducted at the site, it is our opinion that for a majority of the gas bubbles the magnitude of strain encountered by the geomembrane was approximately the same as the yield strain of the material. As such, the strain was recoverable and has not adversely affected the performance of the material.

J:\7000\70011\PA\WORDPROC\LETTERS\Mt. Pleasant, David - NYSDEC DRF01.doc

One Remington Park Drive  
Cazenovia, New York 13035  
(315) 655-8161 Fax (315) 655-4180

Mr. David Mt. Pleasant  
NYSDEC - Region 5

February 4, 1999  
Page 2

If you have any questions, please feel free to contact our office.

Very truly yours,

A handwritten signature in dark ink, appearing to read "David Frostclapp". The signature is fluid and cursive, with the first name "David" being more legible than the last name "Frostclapp".

David Frostclapp  
Engineer

DRF/jlb

Enclosures

pc: Harry Gutheil, Jr., Town of Moreau (w/ enc.)  
Bradford Smith, P.E., Stearns & Wheeler (w/ enc.)  
W. Andrew Wolff, Stearns & Wheeler (w/ enc.)  
Michael Hayes, Kubricky Construction Corporation (w/ enc.)

## ATTACHMENT 1: COMPARISON TABLE

Comparison Table of Strength and Material Characteristics  
"Bubbled" Geomembrane, Geomembrane Specifications and Parent Geomembrane

### TOWN OF MOREAU LANDFILL CLOSURE

S&W No. 70011.0

| CATEGORY          | THICKNESS (MILS) |      | BREAK STRENGTH (LB./IN.) |       | BREAK ELONG. (%) |      | PUNCTURE RESISTANCE (LBS.) |      |
|-------------------|------------------|------|--------------------------|-------|------------------|------|----------------------------|------|
|                   | MIN.             | AVG. | MIN.                     | AVG.  | MIN.             | AVG. | MIN.                       | AVG. |
| Specification     | 36.0             | 40.0 | 75.0                     |       | 400              |      | 50.0                       |      |
| QC Data (average) | 37.9             | 41.4 | 107.1                    | 124.0 | 471              | 526  | 61.1                       | 67.7 |
| Bubbled Samples   | 40.0             | 41.3 | 100.4                    | 124.1 | 486              | 542  | 55.9                       | 57.4 |
|                   |                  |      |                          |       |                  |      |                            | 75.3 |
|                   |                  |      |                          |       |                  |      |                            | 59.2 |



## GEOMEMBRANE CONFORMANCE TEST RESULTS

Client: STEARNS & WHEELER Job Number: 99G2403-01  
Project: CORPORATE Date: 01/25/99  
Material: Solmax 40 mil TEXTURED LLDPE Tested By: MLB/MM  
Sample I.D.: Not Identified- 2-ft circular sample Checked By: JB

| PROPERTY                 | TEST METHOD | UNIT  | REPLICATE No:  |                |                |                |                | AVERAGE | STANDARD DEVIATION |
|--------------------------|-------------|-------|----------------|----------------|----------------|----------------|----------------|---------|--------------------|
|                          |             |       | 1              | 2              | 3              | 4              | 5              |         |                    |
| Thickness                | ASTM D-5994 | mils  | 41.50<br>40.00 | 41.00<br>42.00 | 41.60<br>41.80 | 42.10<br>41.00 | 40.90<br>41.20 | 41.31   | 0.5957             |
| Density                  | ASTM D-1505 | g/cc  | 0.9231         | 0.9225         | 0.9228         |                |                | 0.9228  | 0.0002             |
| Puncture Resistance      | FTMS 101C   | lbs   | 58.27          | 59.27          | 56.72          | 57.17          | 55.92          | 57.4700 | 1.1777             |
| Fensile Properties       |             |       |                |                |                |                |                |         |                    |
| Yield Strength (MD)      | ASTM D-638  | lb/in | 74.40          | 76.29          | 74.48          | 78.63          | 71.65          | 75.09   | 2.3081             |
| Elongation at Yield (MD) | ASTM D-638  | %     | 24.62          | 23.85          | 23.08          | 23.08          | 21.54          | 23.23   | 1.0205             |
| Break Strength (MD)      | ASTM D-638  | lb/in | 146.17         | 129.84         | 119.96         | 124.27         | 100.48         | 124.15  | 14.7978            |
| Elongation at Break (MD) | ASTM D-638  | %     | 624.75         | 531.33         | 515.95         | 554.87         | 486.46         | 542.67  | 46.6634            |
| Yield Strength (CD)      | ASTM D-638  | lb/in | 78.63          | 77.42          | 76.61          | 82.66          | 80.65          | 79.19   | 2.2027             |
| Elongation at Yield (CD) | ASTM D-638  | %     | 23.85          | 25.38          | 23.85          | 26.92          | 24.62          | 24.92   | 1.1513             |
| Break Strength (CD)      | ASTM D-638  | lb/in | 137.90         | 117.74         | 122.98         | 143.15         | 141.94         | 132.74  | 10.3885            |
| Elongation at Break (CD) | ASTM D-638  | %     | 581.47         | 507.74         | 535.03         | 607.38         | 623.01         | 570.92  | 43.4354            |

**APPENDIX P**  
**REMEDIAL DESIGN**

**New York State Department of Environmental Conservation**

**Office of Environmental Quality, Region 5**

232 Hudson Street - P. O. Box 220, Warrensburg, New York 12885-0220

Phone: (518) 623-3671 FAX: (518) 623-4193



John P. Cahill  
Commissioner

CERTIFIED MAIL #P 272 760 603  
RETURN RECEIPT REQUESTED

November 5, 1998

Supervisor Harry G. Gutheil, Jr.  
Moreau Town Hall  
61 Hudson Street, P.O. Box 1349  
South Glens Falls, New York 12803

Re: **Moreau Landfill Closure**

Dear Supervisor Gutheil:

As you are aware, the ongoing landfill closure construction has generated two significant issues that need to be addressed. One is the creation of approximately 12 bubbles (areas where the geomembrane is being lifted off of the paper sludge by landfill gases) while placing barrier protection material over the geomembrane in the southeast corner of the landfill. Based on field visits and discussions with your consultant, Stearns and Wheler, it appears that the bubbles are located in the proximity of very wet, soft paper sludge. The second issue is the "slumping" of the paper sludge along the south side slope of the landfill.

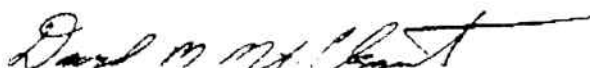
Your consultant should develop a remedial plan to correct and to prevent recurrences of the bubbling and "slumping" problems on the south side of the landfill. This remedial plan should be prepared as soon as possible and approved by the department before it is implemented.

In addition, there is a problem related to the north side of the landfill. While walking around the site on November 2, 1998, I encountered another area with very wet, soft paper sludge. In fact, this area on the north side of the landfill was observed to have gas already bubbling out of the sludge. The area that was observed to be in this condition is shown on the enclosed drawing (contained by the bold line) that was submitted by Stearns and Wheler. During my field inspection, I sampled the gas coming out of the wet sludge and found it to contain very high concentrations of explosive gases, mainly methane. Due to the presence of these gases and the resulting bubbles in the geomembrane, the Department requires that a gas venting layer be applied over the wet area shown on the enclosed drawing. The town may also want to consider using a gas venting layer over the entire landfill. The gas venting layer should allow the gas to be directed to existing gas vents to be passively released, thereby avoiding the creation of bubbles under the geomembrane.

Please have your consultant immediately assess and propose a remedy to address the problem which, at a minimum, must include a gas venting layer in the above described area on the north side of the landfill. A detail showing what the gas venting layer will consist of and how it will be connected to the existing gas vents, as well as the QA/QC protocol to be employed, should be submitted to the department for approval, as soon as possible.

In order to expedite the design changes, I have discussed the problems and suggested solutions with Brad Smith of Stearns and Wheler. If you would like to discuss this further or have any questions, please do not hesitate to call me at (518) 668-5441.

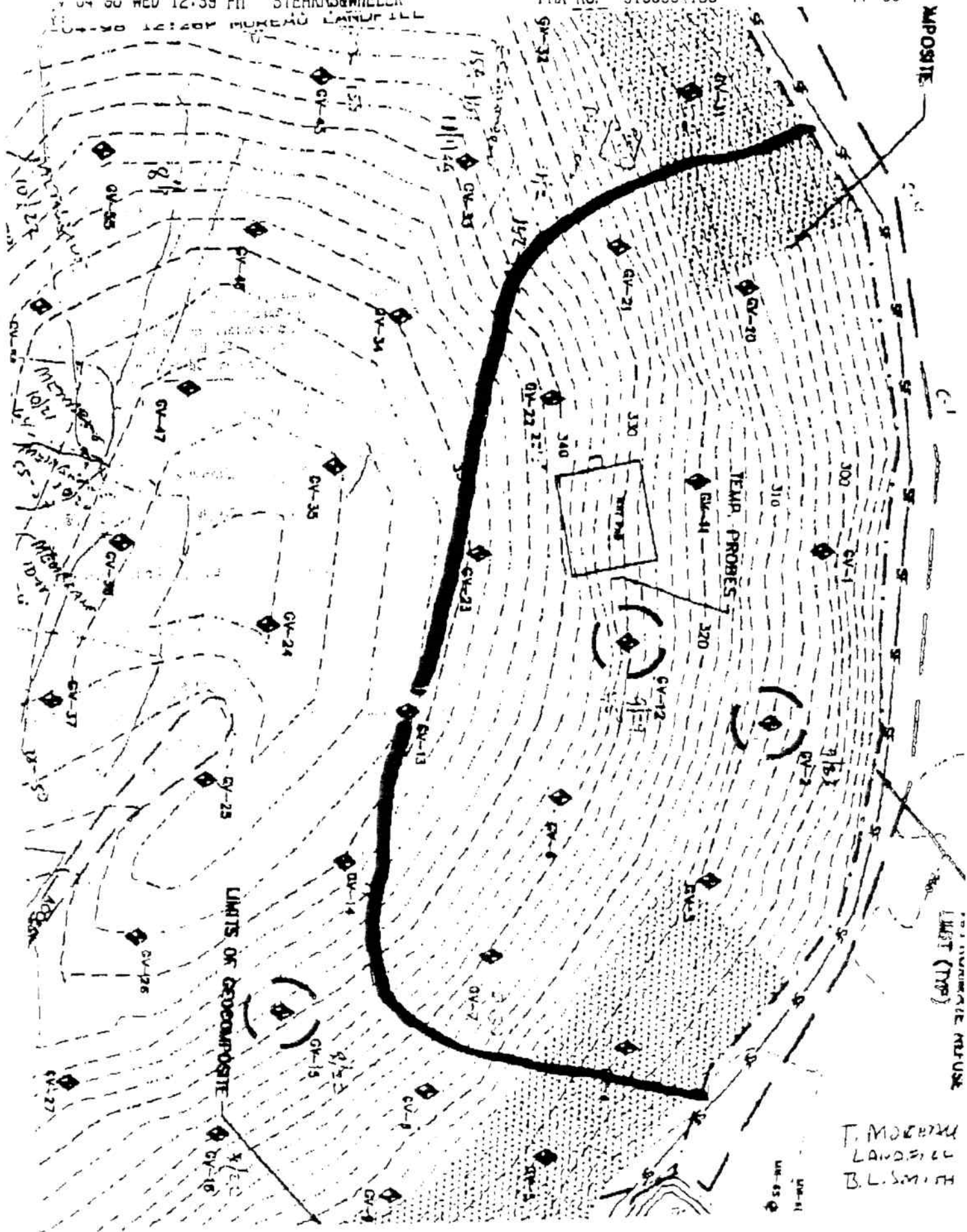
Sincerely,



David M. Mt. Pleasant, P.E.  
Environmental Engineer 2

DMM:lc  
enc.

cc: D. Bedinotti  
B. Smith  
R. Thompson



New York State Department of Environmental Conservation

Office of Environmental Quality, Region 5

232 Hudson Street - P. O. Box 220, Warrensburg, New York 12885-0220

Phone: (518) 623-3671 • FAX: (518) 623-4193

Website: www.dec.state.ny.us



John P. Cahill  
Commissioner

July 27, 1999

Harry G. Gutheil, Supervisor  
Town of Moreau  
Town Office Building  
P. O. Box 1349  
South Glens Falls, NY 12803

RECEIVED  
STEARN & WHEELER

JUL 29 1999

Re: **Moreau Landfill - South Slope Remediation Plan**

Dear Supervisor Gutheil:

Regional and Central office staff have reviewed the *Report (for the) Landfill South Slope Remedial Design* for the Moreau landfill, dated July 1999, and submitted by your consultant, Stearns and Wheler. Overall, we felt that the remediation plan was put together well and was adequately backed up by sound technical arguments. However, there were a few issues that needed to be clarified as part of our acceptance of the plan.

Therefore, with the inclusion of the following conditions, the report referenced above is hereby accepted:

1. The material placed for the gas venting layer over the existing geomembrane must comply with the QA/QC requirements of Part 360-2.13(p).
2. The welding of the new geomembrane to the existing old geomembrane shall be done, to the extent practicable, "above" the crest of the top of slope. This will minimize the amount of stress, if any, put on the seam where the two geomembranes are joined.

While the department accepts this remediation plan, the department neither agrees nor disputes the arguments made by Stearns and Wheler as to the cause of the failure.

I have spoken with Bradford Smith about these conditions and he has no objections to them. Please call me if you have any questions.

Sincerely,

Brad Smith

David M. Mt. Pleasant

David M. Mt. Pleasant, P. E.  
Environmental Engineer 2

DMM:lc

cc: R. Phaneuf/R. Thompson

July 9, 1999

Mr. Michael Hayes  
Kubricky Construction Corporation  
237 Bay Street – P.O. Box 3202  
Glens Falls, NY 12801-7202

Re: South Slope Remediation Cost Estimate  
Town of Moreau Landfill Closure  
Contract No. 10  
S&W No. 70011PA.20.10

Dear Mike:

The remedial design for the south slope of the Town of Moreau Landfill has been submitted to the NYSDEC for review and approval. In order to expedite the construction process, the Town Board has asked that we pursue pricing of the remediation concurrent with NYSDEC review. Accordingly, this letter identifies the tasks to be completed to satisfy the remedial design. In the event that the Department requires modifications to the remedial design, these will be forwarded to you for evaluation of potential impacts to your pricing.

In general, the remedial work consists of regrading portions of the slope and providing additional gas vents and laterals, a reinforcing geotextile, a 2-foot gas venting (sand) layer, providing a new geomembrane barrier layer, a barrier protection layer, a topsoil and seed/fertilizer/erosion control. Enclosed is Sheet R-2, which identifies the limits and details associated with the remedial work. Each component of the work is described in more detail as follows.

### **REGRAIDING**

The remedial design calls for regrading of excessively steep or excessively flat areas that fall outside the standard grading limits of Part 360 (slopes flatter than 4 percent and slopes steeper than 33 percent) in order to maintain positive drainage. We anticipate that the areas not satisfying Part 360 will be limited. As we do not have Kubricky's survey of this area, the area and volume associated with this activity cannot be determined. Based on the total area of the work we estimate that approximately 100 square yards of area will have to be regraded, encompassing approximately 60 cubic yards of material.

The geomembrane shall be cut, as required to access and grade each area. Cut subgrade material shall be placed adjacent to the cut area to blend grade changes. Regrading work shall be completed by hand, as equipment working directly on the subgrade may produce unstable conditions.

### **GAS VENTS AND LATERALS**

Additional gas vents and laterals will be installed to expedite the removal of gas from below the new barrier layer. In addition, existing gas vents located within the remediation area shall have the current pipe boot removed and shall be extended and perforated to allow collection of gas from the gas venting layer per the drawing detail. The drawing identifies six new supplemental gas vents. These vents shall conform to the detail currently being used for supplemental gas vents, except that an additional fitting will be required to allow connection of slotted gas laterals to the riser pipe. The laterals shall be PVC material, 6 inches in diameter and shall be located approximately 6 inches below the top of the gas venting layer. Lateral piping shall be connected to existing and supplemental gas vents where shown on the drawing. Approximately 900 linear feet of gas lateral piping is anticipated. Payment for modification of existing gas vents and new gas vents will be made on a per vent basis. Payment for gas lateral piping shall be based on linear feet installed.

### **REINFORCING GEOTEXTILE**

After regrading is complete, a reinforcing geotextile will be installed on the resulting subgrade. Prior to beginning installation, a 10-foot wide strip of the existing geomembrane shall be removed from the toe of the slope. In addition, the existing geomembrane shall be perforated as shown on the drawing detail. Where barrier protection material has been placed within the limits of the geotextile, the sand material shall be pulled back, outside those limits. The geotextile shall be a woven, polypropylene or polyester product specifically designed for reinforcing applications. The following physical characteristics shall be satisfied:

| PROPERTY                     | STANDARD    | CRITERIA                     |
|------------------------------|-------------|------------------------------|
| WIDE WIDTH TENSILE STRENGTH  | ASTM D 4595 |                              |
|                              | @ 5% strain | ≥ 100 lb./in.                |
|                              | @ Ultimate  | ≥ 200 lb./in.                |
| PERMITTIVITY – CONSTANT HEAD | ASTM D 4491 | ≥ 10 gal/min/ft <sup>2</sup> |
| APPARENT OPENING SIZE        | ASTM D 4751 | ≥ No. 30 sieve               |

Rolls of material shall be placed up and down the slope and adjacent rolls of geotextile shall have a "J-seam" sewn with two rows of 2-thread chain stitch at a four-stitch-per-inch density. Approximately 22,000 square yards of geotextile will be placed. Actual areas may be adjusted in the field. Payment will be based on square yards installed.

### **GAS VENTING MATERIAL**

A formal gas venting layer will be installed to provide a pathway for gas to reach the gas vents and laterals. This layer will also provide the working surface for construction equipment above the subgrade.

When combined with the regrading, this material will provide a more gradual transition in grade prior to installing the geomembrane barrier layer. The gas venting material shall satisfy the requirements of Part 360-2.13(p). Material requirements are as follows:

| PROPERTY      | STANDARD    | CRITERIA                       |
|---------------|-------------|--------------------------------|
| Permeability  | ASTM D 2080 | $\geq 1 \times 10^{-3}$ cm/sec |
| Gradation     | ASTM C 117  |                                |
| No. 200 sieve |             | $\leq 10$ percent passing      |

We note that the material from the Town Park satisfies these criteria and any stockpiled material could be used for the gas venting layer. The off-site material most recently submitted for use as barrier protection material may be able to satisfy these requirements.

The gas venting material shall be placed in a single lift and shall have a nominal thickness of 24 inches. Due to variations in grade, some areas may not result in a full 24-inch thick layer, but shall have a minimum of 12 inches of material to maintain the capacity to carry the flow of gas. The transition to existing grades at the top of the slope is shown on the drawings. Along the remainder of the slope, the gas venting material shall be blended into the existing grades at a 25 percent slope. Based on a 22,000 square yard area and a 2-foot thickness, the volume of approximately 15,000 cubic yards of material will be required. Payment will be based on square yards installed.

#### **GEOMEMBRANE BARRIER LAYER**

After completion of the gas venting layer a new geomembrane barrier layer shall be installed over the 22,000 square yard area. The geomembrane will extend up the slope and over the crown of the steeper perimeter slope as shown on the drawing. Transition details are provided. All installed geomembrane shall satisfy the requirements of the Contract Documents. As the distressed portion of the geomembrane will be overlain, the warranties identified in the contract documents shall be provided. Payment will be on a square yard basis.

#### **BARRIER PROTECTION LAYER/TOPSOIL/SEED/FERTILIZER**

After completion of the new barrier layer, the barrier protection and topsoil layers shall be installed in accordance with the Contract Documents. Pricing has been provided under the existing contract for this work and this work is not considered additional effort.

As we have discussed, there is the potential for the material excavated from the creation of the wetland area to be reused in the south slope remediation. At this time, we believe the most likely use of this material will be in the barrier protection layer. Pricing has been provided for excavation, stockpiling, and spreading of this material under the created wetland work. We assume that this cost is still accurate.

Mr. Michael Hayes  
Kubricky Construction Corporation

July 9, 1999  
Page 4

At this time, we anticipate that the barrier protection layer will be constructed using the excavated material and/or material under the existing unit price item for barrier protection material.

### **CONSTRUCTION CONSIDERATIONS**

Equipment used to install the gas venting layer shall have a ground pressure of less than 5 psi (the John Deere 750C LGP bulldozer used previously will be acceptable). Trucks importing materials shall be confined to the previous temporary haul road location at the top of the slope and the flat area at toe of the slope. No hauling vehicles shall be operated within the remediation area or other completed portions of the south slope.

After installation of the reinforcing geotextile and completion of gas vent modification and supplemental gas vents, the initial placement of gas venting material shall occur in a 25-foot band around the perimeter of the reinforcing geotextile and will serve to anchor the edge of the geotextile. After the perimeter anchor is constructed, placement shall continue from the top of the slope down. The initial fingers of gas venting material shall be placed down the seams in the geomembrane to provide additional support and reduce the tension in the seams. After the seams are covered, the areas between seams shall be filled. After completion of the geomembrane barrier layer, the remaining cap components shall be completed using LGP equipment and with the same hauling vehicle restrictions.

The ultimate goal of the current request is to have a change order prepared for the Town Board to consider during its regular meeting on July 27, 1999. In order to maintain that schedule, please provide your pricing for the south slope work by Monday July 19<sup>th</sup>, identifying the number of days anticipated to complete the south slope remediation and the total number of days required to complete both the south slope and created wetland work (if the two were to be combined).

If you have any questions, please call our office. If necessary, we are available to meet with you to review the drawings and pricing information.

Very truly yours,

Bradford L. Smith, P.E.  
Senior Project Manager

BLS/jlb

Enclosure

**APPENDIX Q**

**MINING PERMIT AND APPLICATION**

New York State Department Environmental Conservation

P.O. Box 220, Warrensburg, NY 12885-0220

(518) 668-5441 or 623-3671

FAX - (518) 623-3603

0-1-100  
J. Palicke  
let  
3/1/98



RECEIVED MAR 04 1998

John P. Cahill  
Commissioner

March 2, 1998

Mr. Harry G. Gutheil, Jr.  
Town of Moreau  
61 Hudson Street  
PO Box 1349  
South Glens Falls, NY 12803

Mine File #(s): 5062-30-0853  
Permit #: 5-4144-00091/00001  
Permit Expiration Date: 2/27/2003  
County: Saratoga  
Town(s): Moreau

Dear Mr. Gutheil:

Your DEC mining permit and permit sign are enclosed. The permit sign must be conspicuously posted at the entrance to the mine site. If the permit or permit sign is lost or destroyed, contact this office for a certified copy.

The operation of the mine must comply with the provisions of the New York State Mined Land Reclamation Law, the Rules and Regulations pertaining to the law, the approved Mined Land Use Plan, and the conditions attached to this permit.

**BE SURE TO READ THE PERMIT CONDITIONS. THEY INDICATE HOW THE MINE MUST BE OPERATED AND RECLAIMED. FAILURE TO OBSERVE ANY OF THESE CONDITIONS WILL CONSTITUTE A VIOLATION OF THE LAW.**

The enclosed approved mining plan map shows all areas to be affected by mining until the end of the permit term. All mining activity must be confined within the approved areas.

Before conducting any mining activity not approved under your existing permit, you must apply for and receive a permit modification from the Department.

When applying to renew your permit please allow 60 days for processing. If you decide to stop mining, you must submit a "Mining Termination Notice" at least 60 days before the expected mining termination date. Notices are available at this office.

Mr. Harry G. Gutheil, Jr.

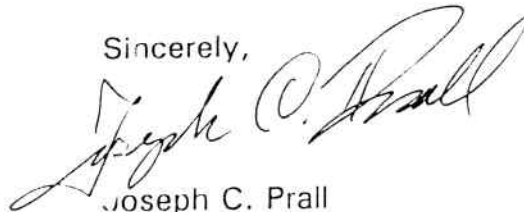
March 2, 1998

Page 2

This permit does not release you from the need to secure the approval to mine from other State agencies or local governments if they require it.

If you have any questions, please contact the Minerals Office at (518) 623-3671.

Sincerely,

A handwritten signature in cursive script, appearing to read "Joseph C. Prall".

Joseph C. Prall

Deputy Regional Permit Administrator

JCP:ml

Enclosures

cc: S. Koenig - Minerals Warrensburg  
Town Supervisor

DEC PERMIT NUMBER  
5-4144-00091/00001FACILITY/PROGRAM NUMBER(S)  
5062-30-0853

## PERMIT

Under the Environmental Conservation Law (ECL)

EFFECTIVE DATE

3/3/98

EXPIRATION DATE

2/27/2003

## TYPE OF PERMIT (Check All Applicable Boxes)

☒ New☐ Renewal☐ Modification☐ Permit to Construct☐ Permit to Operate☐ Article 15, Title 5:  
Protection of Water☐ Article 17, Titles 7, 8:  
SPDES☐ Article 27, Title 9; 6 NYCRR 373:  
Hazardous Waste Management☐ Article 15, Title 15:  
Water Supply☐ Article 19:  
Air Pollution Control☐ Article 34:  
Coastal Erosion Management☐ Article 15, Title 15:  
Water Transport☒ Article 23, Title 27:  
Mined Land Reclamation☐ Article 36:  
Floodplain Management☐ Article 15, Title 15:  
Long Island Wells☐ Article 24:  
Freshwater Wetlands☐ Articles 1, 3, 17, 19, 27, 37;  
6 NYCRR 380, Radiation Control☐ Article 15, Title 27:  
Wild, Scenic and Recreational Rivers☐ Article 25:  
Tidal Wetlands☐ Other: \_\_\_\_\_☐ 6 NYCRR 608:  
Water Quality Certification☐ Article 27, Title 7; 6 NYCRR 360:  
Solid Waste Management

PERMIT ISSUED TO

Town of Moreau

TELEPHONE NUMBER

(518) 792-8914

ADDRESS OF PERMITTEE

61 Hudson Street, PO Box 1349, South Glens Falls, NY 12803

CONTACT PERSON FOR PERMITTED WORK

Harry G. Gutheil, Jr.

TELEPHONE NUMBER

(518) 792-8914

NAME AND ADDRESS OF PROJECT/FACILITY

LOCATION OF PROJECT/FACILITY

2000 feet due west of Reardon Reservoir

COUNTY

Saratoga

TOWN/CITY/VILLAGE

Moreau

WATERCOURSE/WETLAND NO.

NYTM COORDINATES

E: 611.0 N: 4792.0

DESCRIPTION OF AUTHORIZED ACTIVITY

The mining of sand on lands owned by the permittee. Approved operations involve a total of 4.75 acres of affected land during the permit term. The affected acreage is the same area as the 4.75 acre life of mine area, identified in the approved mined land use plan.

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified (See Reverse Side) and any Special Conditions included as part of this permit.

PERMIT ADMINISTRATOR

Joseph C. Prall

ADDRESS

PO Box 220, Hudson Street Ext., Warrensburg, NY 12885-0220

AUTHORIZED SIGNATURE

DATE

3/3/98

Page 1 of 4

## GENERAL CONDITIONS

### Inspections

1. The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3). A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

### Permit Changes and Renewals

2. The Department reserves the right to modify, suspend or revoke this permit when:
  - a) the scope of the permitted activity is exceeded or a violation of any condition of the permit or provisions of the ECL and pertinent regulations is found;
  - b) the permit was obtained by misrepresentation or failure to disclose relevant facts;
  - c) new material information is discovered; or
  - d) environmental conditions, relevant technology, or applicable law or regulation have materially changed since the permit was issued.
3. The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms, fees or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.
4. The permittee must submit a renewal application at least:
  - a) 180 days before expiration of permits for State Pollutant Discharge Elimination System (SPDES), Hazardous Waste Management Facilities (HWMF), major Air Pollution Control (APC) and Solid Waste Management Facilities (SWMF); and
  - b) 30 days before expiration of all other permit types.
5. Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

### Other Legal Obligations of Permittee

6. The permittee has accepted expressly, by the execution of the application, the full legal responsibilities for all damages, direct or indirect, of whatever nature and by whomever suffered, arising out of the project described in this permit and has agreed to indemnify and save harmless the State from suits, actions, damages and costs of every name and description resulting from this project.
7. This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.
8. The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required for this project.

## ADDITIONAL GENERAL CONDITIONS FOR ARTICLE 23, Title 27 (Mined Land Reclamation)

9. Any required reclamation bond or other surety, in an amount determined by the Department, shall be maintained in full force and effect during the mining operation. Such a bond or other surety shall not be terminated until the reclamation of the mined area is approved by the Department in writing.
10. The permittee shall not deviate or depart from the approved mined Land use plan without approval by the department of an alternation or modification thereto.
11. If the permittee decides to discontinue operation, a termination notice must be filed 60 days prior to the scheduled temporary or permanent cessation of mining.
12. The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when notified inspection.
13. If any archaeological or structural remains are encountered during excavation, the permittee must immediately cease, or cause to cease, all work in the area of the remains and notify the NYSDEC Regional Office. Work shall not resume until written permission to do so has been received from the Department.
14. Unless expressly provided for, the issuance of this permit does not apply to any structures contained on the plans or in the specifications, nor does this permit apply to safety aspects of the operation and/or reclamation plan.
15. The enclosed permit and permit sign must be conspicuously posted in a publicly accessible location at the project site. They must be visible, legible and protected from the elements at all times.
16. All activities authorized by this permit must be in strict conformance with the approved plans submitted by the applicant or his agent as part of the permit application.

Such approved plans were prepared by Saratoga  
County S.W.C.D. on 12/97

## SPECIAL CONDITIONS

MINING CONDITIONS

1. All trees, stumps, and brush must be cleared from areas of the mine site to be mined during any calendar year and disposed of in a manner approved by D.E.C. before mining for that year begins.
2. All topsoil covering areas of the mine site to be mined during any calendar year must be stripped and stockpiled, for eventual use in the reclamation of the site, before mining for that year begins.
3. All dust resulting from excavation, processing or use of heavy equipment shall be controlled using water, suitable mechanical or approved chemical methods (contact the Department if using anything other than calcium chloride). Oils or petroleum products shall not be used at the site or on any haul-road to suppress dust. Dust shall not be allowed to become fugitive (leave the permitted area).
4. Any contamination of surface or subsurface water must be prevented.
5. All mining must be conducted at least five feet above the mean annual high groundwater table. The permittee must dig occasional test holes in the mine floor at least five feet deep in order to determine compliance with this condition.
6. Surface water must not be allowed to drain in such a manner that sediment is carried onto neighboring properties or into any streams, rivers or other water bodies.
7. The permittee must allow access to Department personnel at all reasonable times during normal business hours on normal business days, and after reasonable notification to the permittee and proper identification as Department employees, for the purpose of conducting inspections or investigations in the regular course of their duties pursuant to the Environmental Conservation Law, notwithstanding signs or other notices purporting to limit access to the property.

DEC PERMIT NUMBER  
 5-4144-00091/00001

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 5062-30-0853

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**SPECIAL CONDITIONS**For Article 23, Title 27 (Mined Land Reclamation)**MINING CONDITIONS (continued)**

8. No land within 25 feet of any property or right-of-way boundary may be affected by any mining related activity. When mining is conducted below the level of adjacent property, the horizontal distance from the toe of the mine face to the nearest property or right-of-way boundary must be no less than 25 feet plus 2 times the depth of excavation.
9. No construction and demolition debris as defined in Title 7 of Article 27 of the Environmental Conservation Law and as implemented by Title 6 of New York Code of Rules and Regulations, Part 360 shall be disposed of within the mine site unless the appropriate Solid Waste Management Facility Permit has been obtained in accordance with Part 360.

**RECLAMATION CONDITIONS**

1. All waste generated by mining activity, including trees, stumps, brush and rock rubble must be buried at the mine site or otherwise disposed of in a manner approved by DEC.
2. All mineral stockpiles, mining equipment, mineral processing equipment, and other personal property must be removed from the mine site.
3. No area of the reclaimed mine site will exceed a slope of 1:2 (26°).
4. A minimum of six inches of a cover material with a soil composition capable of sustaining plant growth shall be provided on all land to be revegetated.
5. Revegetation of the mine site must be established over a minimum of 75%. Lime, fertilizer, seed and mulch must be applied to reclaim the mine site in accordance with the approved mined land use plan.
6. Final reclamation must commence immediately upon the completion of mining.

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# MINING PERMIT APPLICATION

FOR OFFICIAL DEC USE ONLY

DEC # -

## 7. MINED LAND PROJECT

- |  | Yes                      | No                                  |
|--|--------------------------|-------------------------------------|
| a. Will the total acreage affected by mining for the entire mining site exceed 5 acres?          | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Will the vertical depth from the top of the mine face to the floor exceed 20 feet?            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Will there be on-site processing of mining products (eg. crushing, screening, washing)?       | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Will mining occur within 100 feet of a surface water body (eg. stream, lake) or wetland area? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. Will any consolidated minerals be mined (eg. limestone, trap rock, sandstone)?                | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f. Will mining occur within 500' of any dwelling?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g. Will mining ever occur at or below the mean high water table?                                 | <input type="checkbox"/> | <input type="checkbox"/>            |

1. MINED LAND FILE NUMBER (if assigned) 51016-21-3101-0853

2. TELEPHONE NUMBER  
(518) 792-1030

3. NAME OF APPLICANT  
Town of moreau

4. PERMANENT ADDRESS  
61 Hudson Street, P.O. Box 1349

CITY  
South Glens Falls

STATE  
NY

ZIP CODE  
12803

5. CONTACT PERSON  
Harry G. Gutheil, Jr.

6. TELEPHONE NUMBER  
(518) 792-8914

8. TAXPAYER ID 14-6002315  
If other than individual, provide Federal Taxpayer ID Number

9. APPLICATION TYPE  
☒ New ☐ Renewal ☐ Modification

10. a. PRESENT PERMIT TERM  
Expiration date / /

b. COMING PERMIT TERM  
☒ 5 years ☐ Other years

11. COMMON GEOLOGIC NAME OF MINERAL TO BE MINED  
Sand

12. LOCAL ORDINANCES  
a. Is mining prohibited at this location? ☐ Yes ☒ No

b. Does the local government require any type of permit for mining at this location? ☒ Yes ☐ No

13. a. ARE ANY OTHER STATE MINING PERMITS CURRENTLY HELD BY THE APPLICANT? ☐ Yes ☒ No

b. If YES, give DEC mine file number(s).

14. Has any owner, partner, corporate officer or corporate director of your organization ever held any of these positions in another organization that has had a New York State mining permit **SUSPENDED OR REVOKED** or has had a New York State mined land reclamation bond **FORFEITED**? ☐ Yes ☒ No If YES, identify the person(s).

## 15. ACREAGE SUMMARY (To be filled in by applicant)

- |  |                     |
|--|---------------------|
| a. Total acreage controlled by owner at this location                | <u>105.76</u> acres |
| b. Total acreage permitted by DEC prior to this application          | <u>0</u> acres      |
| c. Total acreage affected since April 1, 1975                        | <u>0</u> acres      |
| d. Total acreage approved by DEC as reclaimed since April 1, 1975    | <u>0</u> acres      |
| e. Current affected acreage (c minus d)                              | <u>0</u> acres      |
| f. Acreage included in this application, but not previously approved | <u>4.75</u> acres   |
| g. New acreage to be affected during the coming permit term          | <u>4.75</u> acres   |
| h. Number of acres to be reclaimed during coming permit term         | <u>4.75</u> acres   |

FOR OFFICIAL DEC USE ONLY

105.76 acres  
0 acres  
0 acres  
0 acres  
0 acres  
4.75 acres  
4.75 acres  
4.75 acres

16. NAME OF MINING SITE Harry J. Betar Jr. Recreational Park

17. MINE LOCATION  
Road off Gansevoort Road, Route 3

Nearest Road Intersection Gansevoort Road

Town Moreau

County Saratoga

18. MAP LOCATION Glens Falls, NY

a. Quadrangle Name SW/4 Glens Falls

b. ☒ 15 minute ☐ 7 1/2 minute

NYTM'S 611.0 E, 4 792.0 N

19. NAME AND ADDRESS OF SURFACE LANDOWNER  
Town of Moreau, 61 Hudson Street, P.O. Box 1349, South Glens Falls, NY 12803

20. NAME AND ADDRESS OF MINERAL OWNER (if different)

21. I am the owner ☒ in fee, ☒ of the mineral rights of the property that is to be mined by the above applicant. I have read the contents of the Mined Land Use Plan, which sets forth the applicant's mining and reclamation plan for the property to be mined, and I hereby irrevocably consent and agree to the performance of the Mined Land Use Plan by the applicant, his surety or insurer or the NYS Department of Environmental Conservation. I further agree to allow access to the property to department personnel for the purpose of conducting inspections or investigations in the regular course of the business.

SIGNATURE OF OWNER

Harry G. Gutheil, Jr. Supervisor

DATE

2/20/98

22. I hereby affirm, under penalty of perjury that information provided on this form is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

NAME, TITLE AND SIGNATURE

OF APPLICANT OR AUTHORIZED REPRESENTATIVE

Harry G. Gutheil, Jr. Supervisor

DATE

2/20/98

**New York State Department of Environmental Conservation**

**Division of Environmental Permits, Region 5**

232 Hudson Street-P.O. Box 220, Warransburg, New York 12885-0220

Phone: (518) 623-3671 FAX: (518) 623-3603



John P. Cahill  
Commissioner

RECEIVED AUG 4 1999

CC  
Patrick  
Bud Smith  
Martha  
T. B.

August 3, 1999

Mr. Harry J. Guthell, Jr.  
Town of Moreau  
61 Hudson Street  
P.O. Box 1349  
South Glens Falls, New York 12803

Re: Article 23, Title 27: Mined Land Reclamation  
DEC Permit # 5-4144-00091/00001

Dear Mr. Guthell:

Pursuant to your written request your above referenced permit is hereby modified to increase the life of mine acreage 5.45 acres. The enclosed two pages are to replace this first two pages of your mining permit.

Any questions or comments please contact Stanley Koenig in our Division of Mineral Resources.

Sincerely,

Joseph C. Prall  
Deputy Regional Permit Administrator

JCP/psb

CC: S. Koenig  
File

DEC PERMIT NUMBER

5-4144-00091/00001

MINE FILE NUMBER

5062-30-0853



## PERMIT

Under the Environmental Conservation Law (ECL)

EFFECTIVE DATE

8/3/99

EXPIRATION DATE

2/27/2003

## TYPE OF PERMIT

☐

New

☐

Renewal

☒

Modification

☐
Article 15, Title 5:  
Protection of Water
☐
Article 15, Title 27:  
Wild, Scenic and Recreational Rivers
☒
Article 23, Title 27:  
Mined Land Reclamation
☐
ANYCHR 60H:  
Water Quality Certification
☐
Article 24:  
Freshwater Wetlands
☐

Other:

PERMIT ISSUED TO

Town of Moreau

TELEPHONE NUMBER

(518) 792-1030

ADDRESS OF PERMITTEE

61 Hudson Street, P.O. Box 1349, South Glens Falls, NY 12803

CONTACT PERSON FOR PERMITTED WORK

Harry J. Gutheil, Jr.

TELEPHONE NUMBER

(518) 792-1030

NAME AND ADDRESS OF PROJECT/FACILITY

LOCATION OF PROJECT/FACILITY

2000 feet due west of Reardon Reservoir

COUNTY

Saratoga

TOWN/CITY/VILLAGE

Moreau

WATERCOURSE/WETLAND NO

NYTM COORDINATES

E: 611.0 N: 4792.0

DESCRIPTION OF AUTHORIZED ACTIVITY

The mining of sand on lands owned by the permittee. Approved operations involve a total of 5.45 acres of affected land during the permit term. The affected acreage is the same area as the 5.45 acre life of mine area, identified in the approved mined land-use plan.

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified (see next page) and any Special Conditions included as part of this permit.

PERMIT ADMINISTRATOR

Joseph C. Prall

ADDRESS

PO Box 220, 232 Hudson St., Warrensburg, NY 12885-0220

AUTHORIZED SIGNATURE

DATE

8/3/99

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## NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

**Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification**

The permittee expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees, agents, and assigns for all claims, suits, actions, damages, and costs of every name and description, arising out of or resulting from the permittee's undertaking of activities or operation and maintenance of the facility or facilities authorized by the permit in compliance or non-compliance with the terms and conditions of the permit.

**Item B: Permittee's Contractors to Comply with Permit**

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

**Item C: Permittee Responsible for Obtaining Other Required Permits**

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

**Item D: No Right to Trespass or Interfere with Riparian Rights**

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.

## GENERAL CONDITIONS

**General Condition 1: Facility Inspection by the Department**

The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

**General Condition 2: Relationship of this Permit to Other Department Orders and Determinations**

Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

**General Condition 3: Applications for Permit Renewals or Modifications**

The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

The permittee must submit a renewal application at least:

- 130 days before expiration of permits for State Pollutant Discharge Elimination System (SPDES), Hazardous Waste Management Facilities (HWMF), major Air Pollution Control (APC) and Solid Waste Management Facilities (SWMF); and
- 30 days before expiration of all other permit types.

Submission of applications for permit renewal or modification are to be submitted to:

NYSDCE Regional Permit Administrator, Region 5, P.O. Box 296, Route 36, Ray Brook, NY 12977-0296

telephone: (518) 897-1234

**General Condition 4: Permit Modifications, Suspensions and Revocations by the Department**

The Department reserves the right to modify, suspend or revoke this permit. The grounds for modification, suspension or revocation include:

- the scope of the permitted activity is exceeded or a violation of any condition of the permit or provisions of the ECL and pertinent regulations is found;
- the permit was obtained by misrepresentation or failure to disclose relevant facts;
- new material information is discovered; or
- environmental conditions, relevant technology, or applicable law or regulation have materially changed since the permit was issued.

**APPENDIX R**  
**RECORD DRAWINGS**