BS&K
BOND, SCHOENECK & KING, PLLC
ATTORNEYS AT LAW ▪ NEW YORK FLORIDA KANSAS

KEVIN M. BERNSTEIN
Direct: 315-218-8329
Fax: 315-218-8429
kbernstein@bsk.com

September 28, 2010

VIA FEDERAL EXPRESS

Peter Briggs
Chief, Permits Section
New York State Department of
Environmental Conservation
Division of Mineral Resources
Bureau of Oil & Gas Regulation
625 Broadway, 3rd Floor
Albany, NY 12233-6500

Re: *Finger Lakes LPG Storage, LLC, Schuyler County*
Response to DEC Second Notice of Incomplete Application

Dear Peter:

Enclosed is the Response of Finger Lakes LPG Storage, LLC to the Department's August 12, 2010 Second Notice of Incomplete Application for our Underground Storage Permit Application.

If you have any questions, please feel free to contact me. Thank you.

Sincerely,

BOND, SCHOENECK & KING, PLLC

Kevin M. Bernstein

Enclosure

cc:	Linda Collart/William Glynn, NYSDEC	(w/enclosure) *via Federal Express*
	Roger McDonough, NYSDEC	(w/enclosure) *via Federal Express*
	William Kelly, NYSGS	(w/enclosure) *via Federal Express*
	Jennifer Maglienti, Esq., NYSDEC	(w/o enclosure) *via electronic mail*
	Nancy Rice, NYSDEC	(w/enclosure) *via Federal Express*
	William Moler, Finger Lakes	(w/o enclosure) *via electronic mail*
	Barry Cigich, Finger Lakes	(w/enclosure) *via Federal Express*
	Barry Moon, Finger Lakes	(w/enclosure) *via Federal Express*
	Leonard Dionisio, Finger Lakes	(w/enclosure) *via Federal Express*
	John Istvan, IGC	(w/enclosure) *via Federal Express*

Finger Lakes LPG Storage, LLC

Finger Lakes LPG Storage Facility
Reading, New York

Response to DEC August 12, 2010 Second Notice of Incomplete Application

Filed: September 28, 2010

Response of Finger Lakes LPG Storage, LLC to DEC's August 12, 2010 Second Notice of Incomplete Application ("NOIA")

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DEC Map Comments

The following issues remain and must be addressed concerning Finger Lakes' Exhibit 2 "Finger Lakes LPG Storage Gallery Map" and related topics:

DEC Comment 1. Please label "Finger Lakes Gallery 1" and "Finger Lakes Gallery 2" on the gallery map.

Finger Lakes Response: *Finger Lakes' Gallery Map has been revised and now labels each Gallery. The revised Gallery Map is attached to this Response as* ***Exhibit A****.*

DEC Comment 2. Please add and show the cavern outline from the most recent sonar (i.e., October 2009) of Well No. 58 (Gallery 2) on the gallery map.

Finger Lakes Response: *The cavern outline of well 58 (Gallery 2) that is shown on the revised Gallery Map does reflect the most recent sonar.*

DEC Comment 3. If the purple outlines (Max Gallery Outline) of the caverns forming Gallery 1 also represent the current outlines of the gallery, they should be identified on the map as such on the gallery map.

Finger Lakes Response: *This has been corrected in the notes on the Gallery Map under Brinefield Color Code which states for the purple line "Current and Maximum Gallery Outline." This applies to both Gallery 1 and Gallery 2.*

DEC Comment 4. The data table on the left side of the gallery map should be updated to reflect current information for Well Nos. 34 & 58.

Finger Lakes Response: *The data table on the left side of the Gallery Map has been updated.*

DEC Comment 5. The "Brinefield Color Code" on the gallery map shows a "red" cross for the "Top of Cavern" but this symbol is not used on the map, please correct color code or the map itself.

Finger Lakes Response: *The Brinefield Color Code on the map has been revised to show a blue crossed circle for top of well head and this is shown on the map for the active wells. The red cross has been replaced and is no longer shown on the map. Where the top of cavern is in a different location from the top well head, this is shown with a blue cross symbol.*

DEC Comment 6. For all wells on the gallery map, please include a legend which explains the different symbols used to show well status.

Finger Lakes Response: *The Brinefield Color Code legend has been revised to coordinate with the symbols used for each of the wells on the map.*

DEC Comment 7. "Well FL1" should be identified as a proposed well on the gallery map.

Finger Lakes Response: *The designation of Well FLI has been so revised on the revised Gallery Map.*

DEC Comment 8. Explain why two different symbols are used on the gallery map to show the pressure connections between the caverns in Gallery 1 (i.e., between Well Nos. 33 & 43 and Well Nos. 43 & 34/44).

Finger Lakes Response: *The Gallery Map has been revised so that the pressure connection between wells 33 and 43 and between wells 43 and 34/44 are shown by the same dashed purple line.*

DEC Comment 9. Explain why the revised gallery map shows the pillar width between Gallery 1 and International Gallery 10 more than doubled (increased from approximately 70' to 165.9') compared to the plan view map previously provided in the October 13, 2009 application.

Finger Lakes Response: *The explanation for the distance difference is that in the original map, the north direction was incorrectly pointed towards the west (upper right corner of the original map) which moved the well orientation more towards the west, therefore closer to well 52. When corrected, it turned the well towards the east which moved it farther from well 52.*

DEC Comment 9a. Describe how the outline for Gallery 10 was determined and provide all supporting information. Provide a copy of all sonar surveys and production records for all wells in Gallery 10 as the notation on the map indicates the gallery outline was determined by "Sonar & Production Records." Additionally, Exhibit C of the May 14, 2010 Response to NOIA should be corrected to include the referenced sonar(s) unless none actually exist. If none exist, correct notation on map.

Finger Lakes Response: *As noted in Exhibit C to Finger Lakes May 14, 2010 Response to DEC's January 11, 2010 Notice of Incomplete Application ("First NOIA"), there are no records for sonars for wells 18, 29 and 57. An incomplete sonar was performed on well 52 in November 2009. This is described in Section 6.4 of the Reservoir Suitability Report and Exhibit 14 submitted on May 14, 2010. Therefore, the gallery map is being revised to show that the shape of Gallery 10 was determined based on a review of production records. In terms of production records, we have been able to obtain the following information.*

Well 18 was drilled in 1936 and a deep well pump was utilized to extract brine from this well until it was abandoned in 1942. The well was plugged and

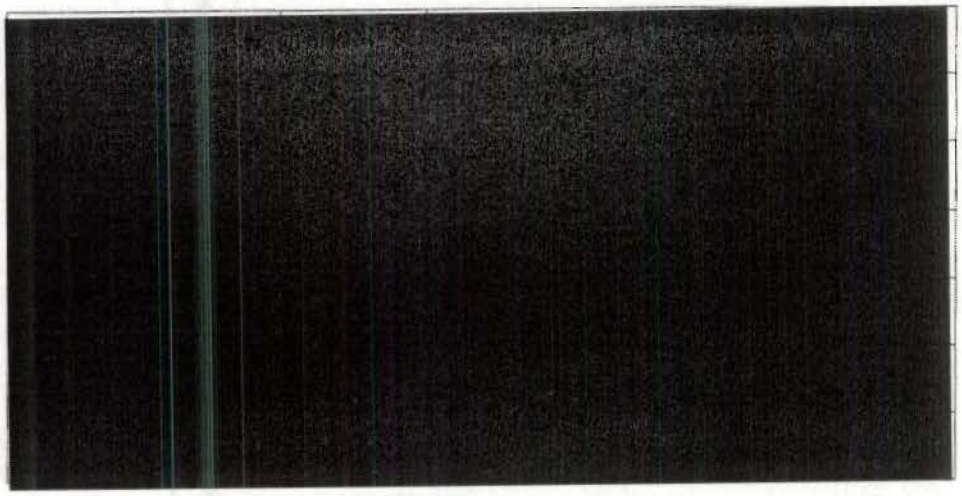
abandoned in 1977 and a Notice of Intention to Plug and Abandon and Plugging Report are attached as ***Exhibit B****. We have no production records for well 18.*

Well 52 was drilled in 1972 and, along with well 57 (which was drilled in 1977), were operated as active brine injection and withdrawal wells until 1996 when both were plugged in June 1996 (with a nearly identical total depth of 2770/2782' and with a cement plug at 2214/2216'). We have only been able to find production reports from 1984 to 1996[1]. These reports reveal the following:

[redacted]

[1] We have been unable to locate records for 1985. These production reports are also included with **Exhibit B**.

[redacted]



We have evaluated the basis for the shape of Gallery 10 on the gallery map. We have talked with Larry Sevenker, who has provided consulting services over the years to US Salt's predecessors during the time these production activities have occurred, Thomas Eyermann, a former (now retired) Brinefield Superintendent for International Salt Company, John Istvan with International Gas Consultants, Barry Moon with Inergy Midstream, and Dave Crea, an engineer with US Salt. Based on this review and evaluation, it is believed that the shape on the gallery map is based on these production records (since as noted above, a complete sonar for any of the Gallery 10 wells has not been performed).

DEC Comment 9b. Page 9 of the May 14, 2010 Reservoir Suitability Report states "there was no pressure encountered on well 52…" In other parts of the application (i.e., Gallery 1 & Gallery 2), Finger Lakes says that encountered pressure during well re-entry is an indication of tightness for the proposed storage galleries. Conversely, is "no pressure encountered" an indicator of Gallery 10 not being tight?

Finger Lakes Response: *It is assumed that the cavern does leak and will be monitored as explained in response to DEC Comment 9d below.*

DEC Comment 9c. Finger Lakes indicates that it could not obtain a cavern sonar survey on Well No. 52 because the casing extending through the cavern is surrounded by cement. Was any consideration given to cutting the casing and attempting to re-sonar? If "no," why not? If dropping the casing in Well No. 52 and re-sonaring is not doable, has Finger Lakes considered re-entering another well in the gallery (i.e., 18 or 57) to perform a sonar survey? Based on information supplied thus far by Finger Lakes, it appears there is still some uncertainty with regard to the actual pillar width between proposed storage

[3] We believe the brine withdrawn and injected volumes were inadvertently transposed in the 1994 annual production report.

[4] Wells 52 and 57 were only used in 1996 until February 12, 1996 and they were then plugged in June 1996.

Gallery 1 and Gallery 10. The Department is aware that Finger Lakes' parent Inergy Midstream, LLC applied for and received well re-entry permits for Well Nos. 18 & 57 in January 2010 but let the wells permits recently expire before commencing work. What was the reasoning for obtaining the permits but not using them?

Finger Lakes Response: *When drilling out well 52, Inergy did not get to where the last top of cavern was reported. Inergy drilled into rubble three feet above where the last top of cavern was believed to be located and concluded that the last cavern height of 34 feet was filled with rubble. When the sonar was attempted it was determined that there is no cavern behind the casing down to the logged depth of 2,680 feet outside of the cemented production casing. Cutting the casing was considered but since we were above the last known top of cavern, and the last known cavern height was 34 feet, there was not enough cavern height for the casing to fall away and there may not be any cavern space. Inergy's reason for obtaining the drilling permits for wells 18 and 57 was to use the gallery for future use.*

[redacted]

The fact that the recent sonar showed no cavern behind the entire length of the cemented casing provides credibility to the above conclusions.

With regard to well 18, Tom Eyermann said that an attempt was made to clean out well 18 to 2,494 feet (assume that was the original total depth). While washing down, circulation was lost at 1,765 feet. He further stated that the tools acted like they were in rubble at 2047 feet, well above the proposed storage interval in Gallery 1. He said it was never fracture connected with 52 and 57 before it was plugged in 1977.

[redacted]

As noted in the response to DEC Comment 9a above, the shape of Gallery 10 is based on production records, which Finger Lakes' experts (John Istvan, Barry Moon, Larry Sevenker and Dave Crea) have reviewed and conclude supports the distance shown on the gallery map between Finger Lakes Gallery 1 and International Gallery 10 (i.e., 165.9').

DEC Comment 9d. The Department understands that Finger Lakes re-entered Well No. 52 to evaluate the well and cavern, and ran a directional survey, bond log, casing inspection log and a sonar survey. Because of the relative closeness of proposed storage Gallery 1 and Gallery 10, and perceived uncertainty of the actual pillar width between Galleries 1 & 10 (see Exhibit 20, Item 6 of "Section 6. Conclusions and Recommendations"), provided Well No. 52 is properly constructed, has Finger Lakes considered running a long-term brine pressure test on Gallery 10 and MIT on the Well No. 52, and then converting Well No. 52 for monitoring use of Gallery 1 storage operations? Ensuring LPG containment in Gallery 10, if inadvertently connected to Gallery 1, should be considered and pros/cons of such evaluated by Finger Lakes.

Finger Lakes Response: *The Reservoir Suitability Report notes that for the most part well 44 (the closest to Gallery 10) will be used as a monitoring well (and only for brine movement out as necessary). During operation of Gallery 1, Finger Lakes also proposes to utilize a digital pressure recorder on well 52 that will be linked to Finger Lakes' control room and SCADA system to ensure that pressures in both Gallery 1 and 10 are monitored to ensure that in the unlikely event there is some potential communication between the two galleries, actions can be implemented to ensure product is not allowed to enter Gallery 10 which may not be tight.*

DEC Comment 9e. Additionally, the Finite Element Analysis ("FEA") included as Exhibit 20 with Finger Lakes May 14, 2010 Reservoir Suitability Report discusses the effect of the relatively small pillar between the galleries, and states "This implies some micro-cracks and fissures might have been induced in the pillars during the brine storage. This is due to the relatively large 34/44 LPG gallery compared to small cavern spacing of 166 ft." and "Certain conservative assumptions were made relating to pressure, location and the size of the cavern associated with Gallery 10. Inability to access the gallery for sonar due to well conditions necessitated the use of these worst case assumptions." It is unclear what conservative worst-case assumptions were made in the FEA relative to the location and size of the adjacent cavern (Gallery 10) – please elaborate.

Finger Lakes Response: *The FEA has been revised as requested by adding modeling with regard to Cavern 2 (well 58), an explanation of the conservative assumptions incorporated into the FEA (pp. 11 and 14) and a subsidence simulation (Section 6 and Figures 20-26) model. See* ***Exhibit C.***

DEC Comments on Reservoir Suitability Report

The following issues remain and must be addressed concerning Finger Lakes' Finite Element Analysis ("FEA"):

DEC Comment 1. The FEA (Exhibit 20) entitled "Finite Element Analysis on 33/44 Gallery, Gallery 10 and Caverns 33 and 34 of Finger Lakes LPG Storage, LLC" does not address the proposed storage of LPG in Gallery 2 (Well No. 58). It does not include modeling and analysis of Gallery 2. In support of its application and as previously requested, Finger Lakes must specifically model proposed LPG storage (including MIT) in Gallery 2 and provide the analysis and conclusions to the Department.

Finger Lakes Response: *The FEA has been revised as requested by adding modeling with regard to Cavern 2 (well 58), an explanation of the conservative assumptions incorporated into the FEA (pp. 11 and 14) and a subsidence simulation (Section 6 and Figures 20-26) model. See* ***Exhibit C****.*

DEC Comment 2. The FEA (Exhibit 20) does not include a prediction of ultimate subsidence at proposed LPG storage Gallery 2 (Well No. 58). In support of its application and as previously requested, Finger Lakes must provide a prediction of ultimate subsidence at Gallery 2.

Finger Lakes Response: *US Salt has been reporting on potential subsidence at well 58 in reports it has submitted to DEC and there has been no evidence of subsidence during the time it has been monitored. As part of Arlington Storage Company's Modification Permit Application for Seneca Storage Gallery 2, it has proposed a subsidence monitoring program. In addition, the FEA has been revised as requested by adding modeling with regard to Cavern 2 (well 58), an explanation of the conservative assumptions incorporated into the FEA (pp. 11 and 14) and a subsidence simulation (Section 6 and Figures 20-26) model. See* ***Exhibit C****.*

DEC Comment 3. The FEA (Exhibit 20) was performed for a 50-year facility life for the storage of LPG in Gallery 1. If and when issued, please note that the storage permit will be conditioned to expire in 50 years unless Finger Lakes supports a longer facility life.

Finger Lakes Response: *Comment noted.*

DEC Comments on Cross-Sections

Geologic cross-sections of the area shown on the map listed in item 5 showing lithologies, storage wells (including casing strings and setting depths) and overlying and underlying formations, and vertical profiles of the existing and ultimate caverns including all prior sonar surveys. These cross-sections must also depict any faults or other structural or stratigraphic features that affect either continuity and extent of the formations shown or effectiveness of containment of gas in the storage reservoir.

The following issues remain and must be addressed concerning Finger Lakes' cross-sections:

DEC Comment 1. For Exhibit 17 "Vertical Section B-B' (South-North) Well Caverns 31, 33, 43, 34, 44, 52 and 57, "no pressure connections are shown in Gallery 1 (i.e., between Well Nos. 33 & 43 and Well Nos. 43 & 34/44) – please include and show the inter-cavern pressure connections on the cross-section (i.e., which correspond to those shown on the plan view).

Finger Lakes Response: *Vertical Section B-B' has been revised to illustrate the inter-cavern pressure connections. The revised Section is attached as* ***Exhibit D.***

DEC Comment 2. Gallery 10 cavern outline(s) must be added to Exhibit 17 "Vertical Section B-B' (South-North) Well Caverns 31, 33, 43, 34, 44, 52 and 57" – please include and show the cavern outline on the cross-section (i.e., which corresponds to that shown on the plan view).

Finger Lakes Response: *See* ***Exhibit D,*** *provided in response to comment 1 above.*

DEC Comment 3. Also, on the same cross-section mentioned above, is the cavern outline identified by "Well 43 1976 Sonar" open cavern space or rubble filled? Is this space currently accessible? Is this space accounted for in the estimated 5 million barrels of water-filled capacity? It is unclear due to the continuous shale layer above it and minimal caving of the roof represented on the cross-section.

Finger Lakes Response: *At the time the sonar on well 43 was performed in 1976, there was an open space cavern and that is what is depicted on the cross-section. Subsequent sonars performed on well 43 occurred in 1979, 1997, 1999, 2001, 2002, 2004 and most recently in 2009. Our records indicate that well 43 was drilled in 1966 and plugged and abandoned in 2004. From 1966 until 1987, well 43 was used as a tubing injection well. From 1987 until 2004, well 43 was used as an observation well. Sonars performed after 1976 did not pick up the open space observed at that time, most likely because the original cavern became filled with rubble. The cavern observed in 1976 is* <u>*not*</u> *included in the total estimated 5 million barrels of water-filled capacity for Gallery 1.*

DEC Comment 4. For Exhibit 17 "Finger Lakes LPG Storage, LLC Structural Cross Section A-A'" and "Finger Lakes LPG Storage, LLC Structural Cross Section B-B'," there appears to be a typo in that the line designations "A-A'" and "B-B'" in the title block and labels next to the well logs are swapped and do not correspond to the correct lines. If you concur, please correct and resubmit.

Finger Lakes Response: *The structural cross-sections have been corrected to correctly correspond with the gallery map. The revised cross-sections are attached as* ***Exhibit E.***

DEC Comments on Cavern Development Plan/Proposed Operations

The following items remain and must be addressed concerning Finger Lakes' Cavern Development Plan and Proposed Operations:

DEC Comment 1. Finger Lakes must elaborate and explain its cavern development plan and proposed operations in more precise terms, including the following:

DEC Comment 1a. Finger Lakes must explain and identify what areas of the proposed storage galleries will remain as currently constructed and what areas of the galleries will be subject to operational solutioning (i.e., less than 2% annual growth) during the proposed LPG storage operations. It is understood that no active mining will take place once the storage caverns are put into service. Finger Lakes must identify on a plan view and vertical section the 1) areas of the galleries that account for the projected 30% cavern growth during LPG operations and 2) areas of the galleries that will not be affected (i.e., no growth) by LPG storage operations.

Finger Lakes Response: *The plan view on the Gallery Map (as revised) shows that the present outlines will not be enlarged after the 30% growth rate takes place (at least without a further modification to the permit). The cross-sections also show the manner in which cavern growth will occur and how this will not affect pillar distance between Gallery 1 and International Gallery 10.*

DEC Comment 1b. Finger Lakes must explain how it intends to prevent operational solutioning certain areas of the storage galleries. An explanation by Finger Lakes that certain wells will be used only for monitoring is not sufficient as it does not explain why cavern space being used for LPG storage does not grow laterally due to operational solutioning. It is unclear from Finger Lakes application how lateral growth of the galleries will be prevented. Finger Lakes must describe any controls, including operational, that will be used to prevent gallery growth including lateral growth.

Finger Lakes Response: *Finger Lakes has submitted an application to drill a new well into gallery 1 (Proposed FL1) for the main purpose of product injection/ withdrawn of LPG and with the use of a hanging tubing string in the well for brine injection and withdrawal during injection of LPG.*

Well 43 will be used for LPG withdrawal. It is located at the highest point of the cavern, so if LPG does flow to well 43 from well 34 and 44 (also proposed FL1 well) it can be recovered. The tubing depth in the proposed FL1 well will be below the bottom of cavern in well 43 so it will be possible for LPG to get to well 43 if there is a connection in the rubble pile close to the bottom.

Well 44 has a new cemented string to the bottom of the well. Finger Lakes has proposed that this well will be for monitoring and for brine withdrawal if necessary. No saturated or under saturated brine will be injected into this well to

prevent the solution mining of this area. As noted, it may be used for brine withdrawal if needed to lower the injection pressure if we are using additional pumps to get the desired flow rates needed.

Well 34 will be plugged and abandoned since it has a small casing size and is not in the high point of the cavern.

FL 1 well will be used for all brine injection; this will restrict the cavern growth laterally since it is in the wide point of the cavern and the brine will be moving upward during product withdrawal and therefore the growth will occur upward instead of outward.

Well 33 has new casing cemented into the surface with a new hanging tubing string. This location in the cavern is the greatest distance from well 44 but does have communication with well 43, 34, 44 and proposed FL 1 which is in the rubble pile. The cavern formed by well 33 will in some respects be operated as a separate cavern since when product is injected, brine will be displaced out of the hanging string in the same well 33. Cavern growth will occur upward primarily due to the insoluble layer in the middle of the cavern.

Well 58 is a single well which has a new hanging tubing string installed. It will be operated in the same manner as well 33. Product will be injected/ withdrawn in the annulus and brine will be displaced/ injected in the tubing. Cavern growth will occur upward and outward. Cavern growth will occur above the maximum diameter since the tubing is above the maximum diameter on wells 33 and 58.

DEC Comment 1c. Finger Lakes must describe any controls, including operational, it will use to protect the cavern roofs and limit operational solutioning of the cavern roofs.

Finger Lakes Response: *Finger Lakes will be conducting a brine nitrogen interface test on the wells prior to putting them into LPG service. Finger Lakes will leave enough LPG in the cavern to prevent any solutioning of the cavern roof. This plan is similar to what the Department approved for Cavern 6 at the Savona LPG Facility.*

DEC Comment 1d. The maximum requested product fill level must be depicted on a plan view and vertical section of the storage galleries (i.e., show where product will be stored at maximum fill). The setting depth of the brine strings must also be shown on the vertical section. If the setting depth of any brine string will be used to control cavern growth, it should be stated and explained. The Department must understand Finger Lakes cavern development and operations plan. It is acknowledged that Finger Lakes states on page 14 of the May 14, 2010 Revised Reservoir Suitability Report that "Well 33 will not increase in diameter if and when put into LPG storage service since any 30% increase in solutioning by undersaturated brine product displacement will take

place above the existing maximum diameter" and "Wells 43 and 44 will be monitoring wells and will not be solutioned mined..." Nevertheless, Finger Lakes' current descriptions as noted above and in "Section 11. Cavern Development Plan" lack clarity and do not adequately explain its cavern development and its planned operation of the storage galleries.

Finger Lakes Response: *The maximum requested product fill level for Gallery 1 is now shown on the vertical cross-section and the Gallery Map (Plan View) and the setting depths for the brine strings are shown on the vertical cross-sections. The caverns will not be enlarged after the 30% growth rate takes place without further modification to an underground storage permit. The 30% growth is shown on the plan view and cross-sections as the final estimated cavern shape. Revised vertical cross-section B-B' is included above in* ***Exhibit D*** *and vertical cross-section A-A' is included in response to this question as* ***Exhibit F****.*

DEC Comment 2. Finger Lakes must explain the basis for the "30% additional Mining" noted on Exhibit 21 "Finger Lakes Cavern Matrix." How was it determined and over what time period does it relate?

Finger Lakes Response: *The FEA modeled operations for 50 years. Finger Lakes decided to limit the cavern growth to only 30% additional growth because that will provide the additional space to accommodate the authorization currently being requested of DEC and to operate the cavern in such a way to minimize cavern growth. In addition, Finger Lakes is going to limit the amount of under saturated brine going back into the cavern thus further slowing the growth. To clarify, the authorization being requested is for the storage caverns to grow by 30%, but product stored shall not exceed a total of 1.5 million barrels in Gallery 1 and 600,000 barrels in Gallery 2. If Finger Lakes wishes to expand the caverns beyond the 30% growth or store more than a total of 2.1 million barrels, it would require a Modification Permit from DEC.*

Thus, any storage capacity increase that might be requested in the future would require a modification to the permit. At this time, the market and the size of the proposed brine pond only calls for requesting authorization to store 2.1 million barrels of product. Finger Lakes is aware that if there should be market demand for more than this request, it would have to file a Modification Permit Application and provide for additional brine storage. Moreover, Finger Lakes will need to file a Modification to the permit when 30% is being approached but again because of the manner in which undersaturated brine use will be limited, it is likely that a modification to go beyond the 30% cavern growth would not occur for decades, approaching the 50 years modeled in the FEA. The terms of a future Modification will be based on periodic sonar surveys and how the storage caverns actually react to the operational solutioning.

Finally, during the injection and withdrawal of product, up to the 30% operational solution mining, the roof will always be protected by leaving some amount of product in the upper portions of the cavern, similar to the product left in cavern 6 at Savona

[redacted]

These numbers are calculated volumes and must be verified by the final sonar survey. At the time of the survey, the depth level of the 600,000 barrels of product can be placed on both the plan view and the cross-section. Until then, those levels cannot be determined. Under no circumstance will the maximum lateral volumes be larger than the lowest sonar developed dimensions and the plan view and cross-section shown now will be the maximum dimensions.

DEC Comment 3. Finger Lakes states that Gallery 1's water-filled capacity is approximately 5 million barrels. Why is Finger Lakes requesting limited product storage use of this gallery (i.e., 1.5 million barrels)? If limited use restricted to the top of Gallery 1 relates to controlling lateral cavern growth, it should be stated and explained.

Finger Lakes Response: *Finger Lakes is requesting authority for a total of 1.5 million barrels in Gallery 1 and 600,000 barrels in Gallery 2 due to siting constraints for brine pond storage and expected market conditions.*

DEC Comment 4. Finger Lakes states that Gallery 2's water-filled capacity will be approximately 700,000 barrels when storage operations are initiated. Why is Finger Lakes requesting limited product storage use of this gallery (i.e., 600,000 barrels)? Is the remaining water-filled capacity lost in the rubble pile?

Finger Lakes Response: *While it is possible that some water-filled capacity is lost in the rubble pile, that is not the reason for a request limiting storage use of the gallery to 600,000 barrels. See responses to Comments 2 and 3 above.*

DEC Comment 5. Exhibit 21 "Finger Lakes Cavern Matrix" must be revised to include a column "Ultimate Capacity" (i.e., water filled) in barrels. With respect to the heading "30% additional Mining," please note that for any solutioning occurring during operation of the LPG galleries (i.e., 2% or less annually), we prefer the use of the term

"operational solutioning" or "operational solution mining" rather than just "mining" as it infers active mining. Generally speaking, the organization and clarity of the matrix is lacking in that it is difficult to follow and understand. Finger Lakes should rework the matrix to clarify its proposal.

Finger Lakes Response: *A revised Cavern Matrix showing cavern volumes and salt tonnage extracted or to be extracted is attached as* ***Exhibit G*** *in response to DEC's comments. An explanation of how the volumes for well 58 were derived is included in response to DEC Comment 2 above.*

DEC Comment 6. For each well including proposed Well FL1, provide maximum storage pressure at the wellhead (psig).

Finger Lakes Response: *The maximum storage pressures at the wellhead for each well shall not exceed 1300 psig during injection, storage or withdrawal of LPG.*

DEC Comments on Well Status and Condition Report

The following issues remain and must be addressed concerning Finger Lakes' Well Status and Condition Report:

DEC Comment 1. Page 4 of Finger Lakes' May 14, 2010 Reservoir Suitability Report states that "Well 33 pressure was not affected when pressure was bled to 0 psig on wells 34, 43, 44." If communication exists between the wells as represented by Finger Lakes' proposal to operate Gallery 1 (Well Nos. 33, 34, 43, 44 and new well FL1) as a single storage reservoir, why didn't Well No. 33 respond when pressure was bled to zero on the other wells in the gallery?

Finger Lakes Response: *Since the connection is through the rubble pile, it takes higher pressure to see the connection before a response is seen.*

DEC Comment 2. We acknowledge Finger Lakes provided copies of the "Micro Vertilog" and "Gamma Ray Segmented Bond Log" for Well Nos. 52 & 58, and references to the logging results are found in the May 14, 2010 application. Nevertheless, for each evaluation log run (except sonar surveys) and as a supplement to Exhibits 9 & 10 of Finger Lakes' May 14, 2010 Reservoir Suitability Report, please consolidate logging results and provide a narrative analysis explaining the results of each log on a well-by-well basis with particular attention to cement bonding across the Camillus Shale. For each well, please include the corresponding depths of the Camillus Shale in the narrative. Additionally, provide copies of evaluation logs run on Well Nos. 33, 34, 43 & 44.

Finger Lakes Response: *Segmented Bond Logs and Microvertilogs for Gallery 1 wells are attached as* ***Exhibit H****. The table below summarizes the interpretation of the Cement Bond Logs run on wells 33, 44, 52 and 58. This information is based on data and evaluations (included in* ***Exhibit H****) provided by log analysts from Baker Hughes and Schlumberger logging companies.*

[redacted]

In all of the well logs summarized above the cement bond over the Camillus shale is rated to be excellent. The excellent bond in all cases extends high enough to cover the Bertie dolomite and in some cases it extends to within 500 feet of the surface. Based on this data these wells are in excellent condition and they were properly cemented.

DEC Comment 3. We understand Finger Lakes plans to P&A Well No 34. We also are aware that Finger Lakes recently installed a new fully cemented 8 $^5/_8$" casing string in Well No. 33, a new fully cemented 4" string in Well No. 43 and a new fully cemented 6 5/8" in Well No. 44. Explain why Well No. 58 does not need to be relined – if applicable, Finger Lakes may refer to its reply to Item 2 above. Further, it is the Department's understanding that no evaluation and base logs (i.e., casing evaluation, cement bond log) were performed on the wells reworked with new casing strings which were cemented into place. Evaluation and base logs of these wells and new well FL1 along with a narrative analysis on each log will be required prior to the injection of LPG as a condition of any tentative storage permit.

[redacted]

Evaluation of Gallery 1 logging that occurred in 2009 is provided in response to Comment 2 above.

Prior to injection of LPG, Finger Lakes will provide an evaluation of logging for new well FL 1, as requested, as well as an evaluation of cement bond logs of 33, 43 and 44, which are in the process of being relined. These evaluations will be submitted to the DEC in the near future.

EXHIBITS TO RESPONSE TO NOIA

Exhibit A – Revised Gallery Map

Exhibit B – Plugging Reports and Salt Production Records

Exhibit C – Revised Finite Element Analysis

Exhibit D – Revised Vertical Cross-Section B-B' (South-North)

Exhibit E – Revised Structural Cross-Section A-A' and B-B'

Exhibit F – Revised Vertical Cross-Section A-A' (West-East)

Exhibit G – Revised Cavern Matrix

Exhibit H – Segmented Bond Well Log and Microvertilogs for Gallery 1 Wells and Baker Hughes Evaluations

Exhibit I – Baker Hughes Evaluations of Well 58 Cement Bond and Casing

Exhibit A

Exhibit B

85-15-8 (1/86)—27b

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MINERAL RESOURCES

PRINT OR TYPE IN BLACK INK

PLUGGING REPORT

THIS APPLICATION IS A LEGAL DOCUMENT.
READ THE APPLICABLE AFFIRMATION AND ACKNOWLEDGEMENT CAREFULLY BEFORE SIGNING.

NAME OF OWNER (Full Name of Company, Organization or Individual): Akzo Nobel Salt Inc.		
LEASE OR UNIT NAME AND NUMBER: International Well 57	TOTAL DEPTH: 2770	PLUGGING PERMIT NO.: 96-12868P
COUNTY: Schuyler	TOWN: Reading	API WELL IDENTIFICATION NUMBER: 31-097-12858
LOCATION DESCRIPTION (7½ Quad): Reading Center	LATITUDE: 2000 FT. N of 42°-25'	LONGITUDE: 17200 FT. W of 76°-50'
PLUGGING PERFORMED BY: Universal Well Services		DATE OF PLUGGING: June 5, 1996
DIVISION OF MINERAL RESOURCES WITNESS		DATE WITNESSED

DETAILS OF PLUGGING

Filling Materials and Plugs	DEPTH-FEET From	DEPTH-FEET To	CASING RECORD Size-In.	Weight#/ft.	Put in Well-ft.	Pulled Out-ft.	Left in Well-ft.
			14		80		80
			8-5/8	32	2764		2296
Cast Iron Bridge Plug		2214				(casing broken	
Cement	2214	Surf				by roof fall)	

	YES	NO		YES	NO
Have pits and other excavations been filled?	X		Has casing been cut off below plow depth?	X	
Have the following been removed? Equipment	X		Has well-site been restored to condition similar to adjacent terrain?	X	
Debris	X				

If any of these questions are answered NO, give timetable for completion of reclamation.

REMARKS

Rigged up, ran bit and scraper to 2230'. POH. Ran Baker Model N-1 cast iron bridge plug, set at 2214'. Placed 660SX neat Class 'A' cement from top of plug to surface in 3 stages; replaced fallback from surface. Cut casing off at bedrock, 1 foot below grade, welded a plate over it, and backfilled.

FOR USE BY INDIVIDUAL:

I hereby affirm under penalty of perjury that information provided in the report is true to the best of my knowledge and belief. I am aware that false statements made in this report are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

X _____ Signature of Individual | _____ Print or Type Name of Individual | _____ Date

FOR USE BY ORGANIZATION OTHER THAN AN INDIVIDUAL:

I hereby affirm under penalty of perjury that I am Manager of Solution Mining Technology (title) of Akzo Nobel Salt Inc. (organization); that I am authorized by that organization to make this report; that this report was prepared under my supervision and direction; and that the information provided in this report is true to the best of my knowledge and belief. I am aware that false statements made in this report are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

X [signature] Signature of Authorized Representative | Michael J. Schumacher Print or Type Name of Authorized Representative | 6/25/96 Date

65-12-4 (1/86)—27b

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MINERAL RESOURCES

NOTICE OF INTENTION TO PLUG AND ABANDON

OWNER OR OPERATOR (Full Name of Company, Organization or Individual)
Akzo Nobel Salt Inc.

ADDRESS (P.O. Box or Street Address, City, State, Zip Code)
Salt Point Road - Watkins Glen, NY 14891

LEASE OR WELL NAME AND NUMBER
International Well 57

COUNTY	TOWN	API WELL IDENTIFICATION NUMBER
Schuyler	Reading	31-097-12858
LOCATION DESCRIPTION 7½ Quad) Reading Center	2000 FT. N of LATITUDE 42° - 25'	17200 FT. W of LONGITUDE 76° - 50'

GENERAL LOCATION DESCRIPTION
Akzo Nobel Salt Watkins Glen Brinefield

PLANNED DATE AND TIME OF COMMENCEMENT OF OPERATIONS
May 3, 1996

PROPOSED PLUGGING DETAILS	DEPTH-FEET		CASING RECORD				
Filling Materials and Plugs	From	To	Size-in.	Weight#/ft.	Put in Well-ft.	Pulled Out-ft.	Left in Well-ft.
			1 4"		80		80
			8-5/8"	32	2764		2296
Cast Iron Bridge Plug		2200				(casing broken by	
Cement Plug	2200	surf				roof fall)	

REMARKS

Rig up on the well, verify that there is no pressure.
Run a bit and scraper to 2240'.
Set a cast iron bridge plug at 2200'.
Place class 'A' from the plug to surface in 3 stages.
Backfill any fallback from the surface.
Rig down and clean up the area.
Cut the wellhead off below the ground surface, weld a plate over it, and backfill to surface.

PLUGGING OPERATIONS WILL BE CONDUCTED BY (Full Name of Company, Organization or Individual)
Akzo Nobel Salt Inc.

ADDRESS (P.O. Box or Street Address, City, State, Zip Code)
Salt Point Road, Watkins Glen, NY 14891

TELEPHONE NUMBER
(607) 535-2721

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.

TYPEWRITTEN NAME AND TITLE
Michael J. Schumacher, Manager Solution Mining Technology

SIGNATURE

DATE

85-15-8 (1/86)—27b

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MINERAL RESOURCES

PRINT OR TYPE IN BLACK INK

PLUGGING REPORT

THIS APPLICATION IS A LEGAL DOCUMENT.
READ THE APPLICABLE AFFIRMATION AND ACKNOWLEDGEMENT CAREFULLY BEFORE SIGNING.

NAME OF OWNER (Full Name of Company, Organization or Individual): Akzo Nobel Salt Inc.		
LEASE OR UNIT NAME AND NUMBER: International Well 52	TOTAL DEPTH: 2782	PLUGGING PERMIT NO: 96-12867P
COUNTY: Schuyler	TOWN: Reading	API WELL IDENTIFICATION NUMBER: 31-097-61208
LOCATION DESCRIPTION (7½ Quad): Reading Center	LATITUDE: 1700 FT N of 42°-25'	LONGITUDE: 17150 FT W of 76°-50'
PLUGGING PERFORMED BY: Universal Well Services		DATE OF PLUGGING: June 7, 1996
DIVISION OF MINERAL RESOURCES WITNESS:		DATE WITNESSED:

DETAILS OF PLUGGING

Filling Materials and Plugs	DEPTH-FEET From	DEPTH-FEET To	CASING RECORD Size-in.	Weight#/ft.	Put in Well-ft.	Pulled Out-ft.	Left in Well-ft.
			13-3/8	48	44		44
			8-5/8	32	2750		2750
Cast iron bridge plug		2216					
Cement Plug	2216	Surf					

	YES	NO		YES	NO
Have pits and other excavations been filled?	X		Has casing been cut off below plow depth?	X	
Have the following been removed? Equipment		X	Has well-site been restored to condition similar to adjacent terrain?	X	
Debris		X			

If any of these questions are answered NO, give timetable for completion of reclamation. (Area is used as a laydown yard)

REMARKS

Rigged up; drilled out gypsum in casing; ran bit and scraper to 2240', Ran Baker Model N-1 bridge plug, set at 2216'. Placed 640SX neat Class 'A' cement from top of plug to surface in 3 stages; replaced fallback from surface. Cut casing off 4 feet below grade, welded a plate over it and back filled.

FOR USE BY INDIVIDUAL:

I hereby affirm under penalty of perjury that information provided in the report is true to the best of my knowledge and belief. I am aware that false statements made in this report are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

X _____ Signature of Individual | _____ Print or Type Name of Individual | _____ Date

FOR USE BY ORGANIZATION OTHER THAN AN INDIVIDUAL:

I hereby affirm under penalty of perjury that I am Manager of Solution Mining Technology (title) of Akzo Nobel Salt Inc. (organization); that I am authorized by that organization to make this report; that this report was prepared under my supervision and direction; and that the information provided in this report is true to the best of my knowledge and belief. I am aware that false statements made in this report are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

X [signature] Signature of Authorized Representative | Michael J. Schumacher Print or Type Name of Authorized Representative | 6/25/96 Date

85-12-4 (1/86)—27b

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MINERAL RESOURCES

NOTICE OF INTENTION TO PLUG AND ABANDON

OWNER OR OPERATOR (Full Name of Company, Organization or Individual)
Akzo Nobel Salt Inc.

ADDRESS (P.O. Box or Street Address, City, State, Zip Code)
Salt Point Road - Watkins Glen, NY 14891

LEASE OR WELL NAME AND NUMBER
International Well 52

COUNTY	TOWN	API WELL IDENTIFICATION NUMBER
Schuyler	Reading	31-097-61208

LOCATION DESCRIPTION 7½ Quad)		
Reading Center	LATITUDE 1700 FT. N of 42° - 25'	LONGITUDE 17150 FT. W of 76° - 50'

GENERAL LOCATION DESCRIPTION
Akzo Nobel Salt Watkins Glen Brinefield

PLANNED DATE AND TIME OF COMMENCEMENT OF OPERATIONS
May 1, 1996

PROPOSED PLUGGING DETAILS

Filling Materials and Plugs	DEPTH-FEET From	DEPTH-FEET To	CASING RECORD Size-in.	Weight#/ft.	Put in Well-ft.	Pulled Out-ft.	Left in Well-ft.
			13-3/8"	48	44		44
			8-5/8"	32	2750		2750
Cast Iron Bridge Plug		2200					
Cement Plug	2200	surf					

REMARKS

Rig up on the well, verify that there is no pressure.
Run a bit and scraper to 2240'.
Set a cast iron bridge plug at 2200'.
Place class 'A' from the plug to surface in 3 stages.
Backfill any fallback from the surface.
Rig down and clean up the area.
Cut the wellhead off below the ground surface, weld a plate over it, and backfill to surface.

PLUGGING OPERATIONS WILL BE CONDUCTED BY (Full Name of Company, Organization or Individual)
Akzo Nobel Salt Inc.

ADDRESS (P.O. Box or Street Address, City, State, Zip Code)
Salt Point Road, Watkins Glen, NY 14891

TELEPHONE NUMBER
(607)535-2721

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.

TYPEWRITTEN NAME AND TITLE
Michael J. Schumacher, Manager Solution Mining Technology

SIGNATURE

DATE
11 April, 1996

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
BUREAU OF MINERALS

NOTICE OF INTENTION TO PLUG AND ABANDON

R OR OPERATOR (Full Name of Company, Organization or Individual)
International Salt Company

DDRESS (P.O. Box or Street Address, City, State, Zip Code)
Salt Point Road, Watkins Glen, N.Y. 14891

ASE OR UNIT NAME: North Brinefield (Fee)
WELL NO.: 18

OUNTY: Schuyler
TOWN: Reading
Bureau of Minerals Identification No.: N/A

OCATION DESCRIPTION
2200' N of 42 degree 25', 5200' E of 76 degree 55' (Reading Center 7-1/2' Quad.)

ANNED DATE AND TIME OF COMMENCEMENT OF OPERATIONS
June 7, 1977 12:00 Noon

ESCRIPTION OF PROPOSED PLUGGING PROCEDURE

Well was abandoned in 1942. It apparently has 500 ft. of tubing dropped to bottom. We will attempt to recover the tubing. A plug will be set at about 1800' BGL. We will then cement back to surface through the drillpipe.

UGGING OPERATIONS WILL BE CONDUCTED BY (Full Name of Company, Organization or Individual)
Owner

DRESS (P.O. Box or Street Address, City, State, Zip Code)
Above

TELEPHONE NO. (Include Area Code)
607-535-2721

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 nishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

ITTEN NAME AND TITLE
Thomas Eyermann, Brinefield Superintendent

GNATURE

DATE
5/13/77

12-4 (1/75)

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
BUREAU OF MINERAL RESOURCES

PLUGGING REPORT

Owner or Operator: International Salt Company
(Full name of company, organization or individual)

Address: Salt Point Road, Watkins Glen, N.Y. 14891
(P. O. Box or street address, city, state, Zip code)

Lease or Unit Name: Brinefield Well No. 18 Total Depth: 2047 Plugging Permit No. 77-5402P

County: Schuyler Town: Reading Bureau of Mineral Resources Identification No. 31 097 51496S

Location Description: 2200' N of 42°25', 5200' E of 76°55' Reading Center Quad.

Date of Plugging: 7/1/77

Plugging performed by: Operator, using Halliburton Services

Witnessed by: _____ Bureau of Mineral Resources Department of Environmental Conservation

DETAILS OF PLUGGING

FILLING MATERIALS AND PLUGS	DEPTH – FEET From	DEPTH – FEET To	CASING RECORD Size in.	Weight #/ft.	Put in Well–ft.	Pulled out–ft.	Left in Well–ft.
Halliburton Light Cement	0	1876	14"				0-10
Bridge of stone & dirt	1876	1906					
			Remarks:				

Have pits and other excavations been filled? Yes ☐ No ☒

Have the following been removed?
Equipment Yes ☒ No ☐
Debris Yes ☐ No ☒

Has casing been cut off below plow depth? Yes ☐ No ☒

Has well-site been restored to condition similar to adjacent terrain? Yes ☐ No ☒

Executed this 11 day of July, 1977 State of New York County of Schuyler

(signature of affiant) Thomas Eyermann, Brinefield Superintendent
(typewritten name and title)

File Number: _____
(for Bureau of Mineral Resources Use)

MR-13 (10/72)

WELL 18

Well 18 is located approximately 400 feet north of Well 52. We planned to clean the well to total depth of 2494 feet BGL if possible and to investigage the possibility of deepening 18 and fracturing to connect with 52.

L & G Drilling Company began setting up on 18 on June 21, 1977. They rigged up cable tools and moved the surface plug down hole about 5 feet. Fished out 4 lengths of 2" pipe from derrick and several boards at 21 feet. Plug then fell to 51 feet and was pushed to 100 feet. Pulled board out at 100 feet and tools went to 585 feet. Pulled out several boards and 2" pipe at 585 feet and drilled to 630 feet. Bent tools trying to fish at 630 feet and decided to set in rotary table. Used 2 - 6-1/4" DC on 3-1/2" DP with 6-3/4" pineapple mill. Drilled to about 642 feet with trouble with clutch on rig. Went to 1703 feet with some torque on string to 673 feet and from 1673 feet to 1703 feet. Pulled 3-1/2" and ran cable tools to 1699 feet. Changed to 2 - 4" DC on 2-7/8 DP with 4-3/4" flat bottomed mill. Went easily to 1765 feet. Broke through blockage and lost circulation. Water level held at about 30 feet BGL. The string washed easily to 2011 feet. Drilled to 2047 feet. Between 2020 feet and 2047 feet tools acted as if in rubble pile. Seldom regained bottom after pulling back. Piper Well Surveys ran - gamma - caliper - casing collar locator logs. Logger's TD was 2018 feet with a cavity up to 26" in diameter up to 2003 feet. Caliper showed 7" hole to 1702 feet, 9" hole to 600 feet and 14" hole to surface casing. Surface casing was 10 feet of 14" pipe. Decided to plug hole due to caving above salt on June 30, 1977. Plugged well on July 1, 1977.

Set a drillers bridge at 1904 feet to 1870 feet. Halliburton (5 hours late) pumped 250 sacks of Halliburton light in first stage, L & G pulled back 33 joints, and 300 sacks were pumped in. Cement settled at about 60 feet BGL. Filled in hole with dry cement and dirt. Rigged down to move to Well 4 on July 2, 1977.

7/12/77

T. Eyermann

Exhibit C

Exhibit D

Exhibit E

Exhibit F

Exhibit G

Exhibit H

BAKER HUGHES

Baker Atlas

MicroVertilog

Magnetic Flux Leakage Inspection

Company	Inergy Midstream LLC
Well	34
Field	US Salt
County	Schuyler
State	New York
Location:	

Section N/A	Township Reading	Range N/A	

Date	Jan. 26, 2009
Service Order	558424
Recorded by	Clinton Pernack
Witnessed by	Mr. Barry Moon
API Serial No.	31-097-61190

Permanent Datum:	G.L.	Elevation: 706.000 ft.	Depth	2383.000
Log Measured From:	M.G.	2.000 ft. above Perm. Datum	Btm. Log Interval	1820.000
Drilling Measured From:	K.B.	0.000 ft. above Perm. Datum	Top Log Interval	-3.000
			Fluid Type	Brine Water

BAKER HUGHES

Baker Atlas

Segmented Bond Log
Gamma Ray

File No: 558423	Company	Inergy Midstream LLC	
API No: 31-097-52932	Well	33	
	Field	US Salt	
	County	Schuyler	State New York

Thank You.	Location Lat:42.417730 Long:76.894890 Twp: Reading SEC N/A TWP RGE N/A	Other Services

Permanent Datum	G.L.	Elevation	681 ft	Elevations
Log Measured From	C.H.	2 ft	Above P. D.	KB N/A
Drill Measured From	Kelly Bushings			DF N/A
				GL 681 ft

Date	January-26-2009	
Run	One	
Service Order	558423	
Depth Driller	2563 ft	
Depth Logger	2000 ft	
Bottom Logged Interval	1996.3 ft	
Top Logged Interval	Surface	
Time Started	10:00	
Time Finished	13:00	
Operator Rig Time	3 Hrs.	
Type of Fluid In Hole	Brine	
Fluid Density	N/A	
Salinity	N/A	
Fluid Level	Full	
Logged Cement Top	Surface	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	N/A	
Nominal Logging Speed	30 fpm	
Maximum Recorded Temperature	N/A	
Reference Log	N/A	
Reference Log Date	N/A	
Equipment No. | Location	6460 | Buckhannon,Wv	
Recorded By	Matthew J Wood	
Witnessed By	Mr Barry Moon	

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BAKER HUGHES

Baker Atlas

Segmented Bond Log
Gamma Ray

File No: 558245	Company	Inenergy Midstream LLC	
API No: 31-097-61200	Well	44	
	Field	US Salt	
	County	Schuyler	State New York

	Location Twp: Reading SEC N/A TWP RGE N/A	Other Services

Permanent Datum	G.L.	Elevation	N/A	Elevations
Log Measured From	C.H.	1 ft	Above P. D.	KB N/A
Drill Measured From	K.B.			DF N/A
				GL N/A

Date	27-January-2009	
Run	One	
Service Order	558425	
Depth Driller	2422 ft	
Depth Logger	Not Tagged	
Bottom Logged Interval	2200 ft	
Top Logged Interval	22 ft	
Time Started	10:00	
Time Finished	13:00	
Operator Rig Time	3 hrs	
Type of Fluid In Hole	Brine Water	
Fluid Density	N/A	
Salinity	N/A	
Fluid Level	Full	
Logged Cement Top	775 ft	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	N/A	
Nominal Logging Speed	20 fpm	
Maximum Recorded Temperature	N/A	
Reference Log	N/A	
Reference Log Date	N/A	
Equipment No. | Location	6460 | Buckhannon,WV	
Recorded By	Clinton Pernack	
Witnessed By	Mr. Barry Moon	

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2200.515 20.075 db/ft -0.344 segB chorm16 Xrcb

Exhibit I

Schlumberger

CEMENT BOND LOG

COMPANY	AKZO SALT, INC.
WELL	INTERNATIONAL SALT NO. 58
FIELD	WATKINS GLEN
COUNTY	SCHUYLER STATE NEW YORK

FIELD WATKINS GLEN
LOCATION
WELL INTERNATIONAL SALT NO. 58
COMPANY AKZO SALT, INC.

LOCATION

Other Services:
CBL
GR
CCL

API SERIAL NO.	SECT.	TWP.	RANGE
31-097-21467	N/A	READING	N/A

ermanent Datum	GROUND LEVEL	Elev.	812.7 F	Elev.: K.B.826.0 F
og Measured From	CASING FLANGE	2.0 F	above Perm. Datum	D.F.825.0 F
rilling Measured From	CASING FLANGE			G.L.812.7 F

ate	17-NOV-1992			
un No.	ONE			
epth Driller	2642.0 F			
epth Logger (Schl.)	2642.0 F			
tm. Log Interval	2165.0 F			
op Log Interval	0.0 F			
ype Fluid in Hole	BRINE			
Salinity NaCl				
Density	10.00 LB/G			
Fluid Level				
Max. Rec. Temp.	83.0 DEGF			
Deviation				
Logger on Bottom	SEE LOG			
Equip. Location	8317	BRADFORD,PA		
Recorded By	O'CONNOR			
Witnessed By	MR. MIKE SCHUMACHER			
BOREHOLE RECORD				
Bit Size	12 1/4			
Depth	2642.0 F			
CASING & TUBING RECORD				
Size	9 5/8	13 3/8		
Weight	36.0000 LB/F			
Casing Top-Driller				
Casing Top-Logger				
Casing Shoe-Driller	2165.0 F	164.0 F		
Casing-Logger	2165.0 F	164.0 F		

The well name, location and borehole reference data were furnished by the customer.

Run No. ONE