BEFORE THE ENVIRONMENTAL APPEALS BOARD

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C.

In the Matter of:	)	
West Bay Exploration Co. of	)	Permit Appeal No. UIC 14-66
Traverse City, Michigan	)	
Haystead #9 SWD	)	
Permit No. MI-075-2D-0010	)	
Jackson County, Michigan	)	

PETITIONER PETER BORMUTH'S MOTION TO SUPPLEMENT THE RECORD WITH EXISTING ATTACHMENTS 1, 2, 3, 4, 7, 8, 10, 11, 13, 14, 17, 18, 20, 21, 22, 23, 24 & NEW ATTACHMENT #25

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The Petitioner, Peter Bormuth seeks to have his submissions considered by the Board in support of his arguments in Petition for Review UIC 14-66. These items are necessary to answer the arguments and assertions Region 5 first made in the April 9, 2014 Response to Comment document on page 67.

Part 124 does not specify if and when the Board, in the course of its review of final permit decisions, may consider materials not included in the administrative record at the time of permit issuance but the Board in *In re Dominion Energy Brayton Point LLC*, 12 EAD 490, 510 (EAB 2007) previously determined that: *"the appellate review process can serve as a petitioner's first opportunity to question the validity of material added to the administrative record in response to public comments. In such cases, where a petitioner submits documents in response to new materials added to the record by the Region in response to comments or on remand, and where the Board's task is to review the record and the Region's rationale for its final decision, it seems logical if not necessary that the Board consider the petitioner's proffer of evidence in support of its assertion that the Region's conclusions are erroneous or that the Region erred in failing to take into account such materials. For this reason, among others, we have in the past considered such newly submitted materials in the course of evaluating the merits of a petition."* See, e.g., *In re Metcalf Energy Ctr.*, PSD Appeal Nos. 01-07 & 01-08, at 22 n.13 (EAB Aug. 10, 2001) (Order Denying Review); see also *In re Marine Shale Processors, Inc.*, 5 E.A.D. 751, 797 n.65 (EAB 1995); *In re Three Mountain Power, L.L.C.*, PSD Appeal No. 01-05, at 2-3 (EAB Apr. 25, 2001).

The Petitioner claims that a full review of the scientific studies he submitted is both logical and necessary in this case and that without considering the Petitioner's submissions the Board cannot fulfill its function to determine if Region 5 made an erroneous conclusion of fact in determining that massive anhydrite is and will remain impermeable upon contact with the injected brine.

As noted in the Petitioner's Motion for Reconsideration filed September 30, 2014, the Courts have ruled that permitting authorities have ***"an affirmative duty to inquire into and consider all relevant facts"*** pertaining to the specific statutory and regulatory criteria established for each permit program, and they must ensure they have developed an adequate record upon which to make a reasoned permit decision. (see *Scenic Hudson Pres. Conference v. Fed. Power Comm'n*, 354 F.2d 608, 620 (2d Cir. 1965). The EAB has an affirmative duty consider all of the scientific studies the Petitioner has submitted and cannot selectively decide which studies the Petitioner referred to in his public comments. The EAB has previously ruled that: *"In reviewing an underground injection well permit application, the Region has a regulatory obligation to consider whether geological conditions may allow the movement of any contaminant to underground sources of drinking water." In re Stonehaven Energy Management*, UTC Appeal No. 12-02 LLC Permit No. PAS2DOIOBVEN (EAB March 28, 2013). The Petitioner asserts that EAB review of each of the studies he submitted is necessary to fulfill the EAB's legal obligation to inquire into and consider all relevant facts with regard to whether the geological conditions at Haystead #9 will allow for movement of contaminants upwards into underground sources of drinking water.

Attachment 1 shows that "when exposed to water, anhydrite readily transforms to the more commonly occurring gypsum" and points out that "nearer the surface, anhydrite has been altered to gypsum by absorption of circulating ground water."

Attachment 2 shows that Texas Railroad Commission records reveal thousands of complaints coming from at least 85 counties about ground water contamination from sodium and hydrocarbons.

Attachment 3 documents the components of the injected brine and lists their effects on human health.

Attachment 4 shows that the reliance of Region 5 on the Hydrogeologic Atlas of Michigan is misplaced since permeability estimates cannot be applied to rocks like anhydrite and salt which are susceptible to solution. It also shows that massive anhydrite, which the EPA claims to be impermeable (p.67, Response to Comment document), "can be dissolved to produce uncontrollable runaway situations in which seepage flow rates increase in a rapidly accelerating manner." The study claims "the solution rate of gypsum or anhydrite is principally controlled by the area of their surface in contact with water and the flow velocity associated with a unit area of the material." The study also notes that "salt is even more soluble that gypsum...".

Attachment 7 is an EPA draft investigation on groundwater contamination near Pavillion, Wyoming which concludes "that constituents associated with hydraulic fracturing have been released into the Wind River drinking water aquifer at depths above the current production zone." This proves that the EPA knows injected fluids can migrate upwards and that they have previously made mistakes with regard to impermeability of rock formations when issuing permits.

Attachment 8 is the EPA draft report document on Pavillion which reiterates the draft investigation findings that "the explanation best fitting the data for the deep monitoring wells is

that constituents associated with hydraulic fracturing have been released into the Wind River drinking water aquifer at depths above the current production zone."

Attachment 10 shows that the hydration of anhydrite is accelerated in the presence of certain salts, like those contained in the brine that West Bay will be injecting in the Salina formation.

Attachment 11 shows that gypsum has replaced anhydrite at a depth as great as 3500 feet.

Attachment 13 documents that "the solubility of minerals increases when the rock fabric experiences pressures higher than that of groundwater" and that "the solubility of anhydrite increases sharply with the increase in pressure; each 0.01 Pa increase in pressure results in a 3 to 5 times increase in solubility."

Attachment 14 shows that cross-formational flow or flow through low-permeability rocks such as the Coldwater Shale formation in the Michigan Basin is regarded as an essential element to explain fluid flow in sedimentary basins. Combined with the Weaver/Frape/Cherry study (Attachment 23) this study documents that fluid flow in the Michigan Basin is dynamic and not static as the EPA claims on p. 68 of their Response to Comment document.

Attachment 17 further develops the concept that natural gradients and buoyancy will move brines upwards. The study claims that "advective transport, considered as simple particle velocity, will manifest if there is a significant vertical component to the regional hydraulic gradient."

Attachment 18 Investigates the dissolution rates of various anhydrites

Attachment 20 shows that K_2SO_4 is a very effective activator for the hydration of anhydrite.

Attachment 21 conclusively shows that an anhydrite group, including anhydrite bearing shales, at 800 meters deep underwent swelling. That is the same approximate depth as the A-1 Salina Group. This clearly show that the EPA has made an irrational and erroneous conclusion of fact in determining that massive anhydrite at depth will not hydrate.

Attachment 22 demonstrates that upward migration of brines and saline fluid has occurred in formations previously regarded as impermeable, such as the Marcellus Shale. The study's authors also note that: "In the Michigan Basin upward migration of saline fluid into overlying glacial sediments was interpreted to reflect isostatic rebound following the retreat of glaciers, leading to fracture intensification and increased permeability." The Coldwater Shale on which the EPA relies if the Salina Group is breached is a relatively weak near-surface formation.

Attachment 23 is absolutely essential to the Petitioner's argument. The article shows that upward cross formational fluid flow has occurred in the Michigan Basin since petroleum production began in the last century.

Attachment 24 provides formula for the conversion of anhydrite.

Attachment 25 is a permit issued by Region 5 and the EPA on June 14, 2006. The Petitioner did not have this document available at the time he filed his Petition for Review UIC 14-66 but was provided this document by Ross Michum of the EPA on 8-25-14 in response to the Petitioner's Freedom of Information Act Request #EPA-R5-2014-008546. The document clearly shows that Region 5 knows that injection of water will dissolve the Salt layers of the Salina Group. This permit is specific to the F-Salt and B-Salt layers, but the technology is applicable at varying depths to any salt layer. The EAB must acknowledge that horizontal leaching of salt & anhydrite strata to form

gas storage caverns is a common technological practice. The Petitioner claims this document shows that Timothy Elkins and the EPA committed an act of willful and wanton misconduct when they asserted that the Salina layers would act as a confining layer of this injected brine in their Response to Comment document and their Response brief. Their own files contain information directly contrary to their assertion and they have previously acted on that information to issue a permit to dissolve the F-salt and B-salt layers through injection.

This document also shows that Region 5 has negligently understated the danger of fracturing from the Haystead #9 well. Attachment 25 notes that a limitation on wellhead pressure serves to prevent injection formation fracturing and calculates the limitation using the following formula: [(0,8 psi/ft – 0.433 psi/ft (specific gravity) x depth] – 14.7 psi]. The F member of the Salina formation at 1150 feet was used as the depth, a specific gravity of 1.05 was used for the injected fluid and a fracture gradient of 0.8 psi/ft was determined from a default value for Michigan. The Region approved a maximum injection pressure of 382 psig for this well. The Petitioner notes that using this same formula with the specific depth of the Haystead well (2870 ft) and the permitted injection pressure of 737psi shows that injection could produce fracturing in the Salina Group layers, as the Petitioner has previously claimed, and that the EPA is negligently ignoring the danger to our USDW from injection at the Haystead site.

It is clear that Timothy Elkins, as Region 5 permit writer is so psychologically wedded to [his] opinions that [he] would consciously lie to avoid the appearance of having erred or changed position and that such behavior as a practical or legal matter foreclosed fair and effective consideration of the evidence presented during the permitting process.

The Petitioner claims the EAB must allow the consideration of this new evidence which was pre-existing in the EPA Region 5 files, and which they should have considered before permitting this well, in addition to the attachments the Petitioner submitted with his Petition for Review. As the EAB has stated in several previous opinions, "an unbiased decision maker is an essential element in any meaningful due process hearing, including the administrative permitting process." *In re Jett Black, Inc.*, 8 E.A.D. 353, 375 (EAB 1999); *accord In re Marine Shale Processors, Inc.*, 5 E.A.D. 751, 784 (EAB 1995) (citing *Goldberg v. Kelly*, 397 U.S. 254, 271 (1970)).

WHEREFORE the Petitioner, Peter Bormuth, respectfully requests that the EAB allow the Petitioner's Motion to Supplement the Record with existing attachments 1, 2, 3, 4, 7, 8, 10, 11, 13, 14, 17, 18, 20, 21, 22, 23, 24 & new attachment #25.

Respectfully submitted,

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October 1, 2014

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CERTIFICATE OF SERVICE

I, Peter Bormuth, do hereby certify that on October 1, 2014, I did send a copy of Petitioner's Motion to Supplement Record to John P. Steketee, U.S. EPA, 77 West Jackson Blvd (C-14J), Chicago, IL 60604-3590 by regular mail.

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Dated: October 1, 2014

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA)
UNDERGROUND INJECTION CONTROL CLASS III PERMIT
MINOR PERMIT MODIFICATION

Permit Number: MI-163-3G-A002

Facility Name: Sunoco Inkster Facility

Pursuant to the provisions of the Safe Drinking Water Act, as amended (42 U.S.C. 300f et seq., commonly known as the SDWA) and implementing regulations promulgated by the United States Environmental Protection Agency (USEPA) at Parts 124, 144, 146 and 147 of Title 40 of the Code of Federal Regulations (40 CFR), Sunoco Partners Marketing & Terminals L.P. of Taylor, Michigan is authorized to operate four existing wells located in a permit area limited to the W/2 of NE/4 & SW/4 & NW/4 of the NW/4 of the NW/4 of Section 7, Township 3 South, Range 10 East and the NE/4 & SE/4 of the NE/4 of the NE/4 of Section 12, Township 3 South, Range 9 East in Wayne County, Michigan. Injection shall be limited to the F, E, D, C and B units of the Salina Group between 1150 and 1800 feet, upon the express condition that the permittee meet the restrictions set forth herein. The names and locations of wells authorized under this permit and a map of the permit area are provided in Part III(D) of this permit. Additional injection wells may be constructed and operated within the permit area provided that the permittee notifies the Director prior to construction and all permit requirements are met. Injection shall not commence into any newly drilled or converted well until the operator has received authorization in accordance with Part I(E)(10) of this permit.

The purpose of the injection is limited to solution mining of salt to enlarge existing salt caverns for hydrocarbon storage.

All references to 40 CFR are to all regulations that are in effect on the date that this permit is effective.

This permit is a minor modification of an existing permit which was signed on July 6, 2005. This permit shall become effective on JUN 14 2006 and shall remain in full force and effect during the operating life of the field, unless this permit is otherwise revoked, terminated, modified or reissued pursuant to 40 CFR 144.39, 144.40 and 144.41. This permit shall also remain in effect upon delegation of primary enforcement responsibility to the State of Michigan unless that State chooses to adopt this permit as a State permit. This permit will be reviewed at least every five (5) years from the effective date specified above.

Signed and dated: June 14, 2006

for John A. Hennig

Jo Lynn Traub
Director, Water Division

PART I
GENERAL PERMIT COMPLIANCE

A. EFFECT OF PERMIT

The permittee is allowed to engage in underground injection in accordance with the conditions of this permit. The underground injection activity, otherwise authorized by this permit or rule, shall not allow the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any Primary Drinking Water Regulation found in 40 CFR Part 142 or may otherwise adversely affect the health of persons. Any underground injection activity not specifically authorized in this permit or otherwise authorized by permit or rule is prohibited. Issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local law or regulations. Compliance with the terms of this permit does not constitute a defense to any action brought under Section 1431 of the Safe Drinking Water Act (SDWA) or any other law governing protection of public health or the environment.

B. PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR 144.39, 144.40, and 144.41. The filing of a request for a permit modification, revocation and reissuance, termination, or the notification of planned changes or anticipated noncompliance on the part of the permittee does not stay the applicability or enforceability of any permit condition.

C. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

D. CONFIDENTIALITY

In accordance with 40 CFR Part 2 and Section 144.5, any information submitted to the USEPA pursuant to this permit may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, USEPA may make the information available to the public without further notice. If a claim is asserted, the validity of the claim will be assessed in accordance with the procedures in 40 CFR Part 2 (Public Information). Claims of confidentiality for the following information will be denied:

(1) The name and address of the permittee; and

(2) Information which deals with the existence, absence or level of contaminants in drinking water.

E. DUTIES AND REQUIREMENTS

1. Duty to Comply - The permittee shall comply with all conditions of this permit, except to the extent and for the duration such noncompliance is authorized by an emergency permit pursuant to 40 CFR 144.34. Any permit noncompliance constitutes a violation of the SDWA and is grounds for enforcement action, permit termination, revocation and reissuance or modification.

2. Penalties for Violations of Permit Conditions - Any person who operates this well in violation of permit conditions is subject to civil penalties, fines, and other enforcement action under the SDWA and may be subject to such actions under the Resource Conservation and Recovery Act. Any person who willfully violates a permit condition may be subject to criminal prosecution.

3. Need to Halt or Reduce Activity not a Defense - It shall not be a defense for a permittee in an enforcement action to state that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

4. Duty to Mitigate - The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.

5. Proper Operation and Maintenance - The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

6. Duty to Provide Information - The permittee shall furnish to the Director, within thirty (30) days, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required by this permit to be retained.

7. Inspection and Entry - The permittee shall allow the Director or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

(a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this permit;

(b) Have access to and copy at reasonable times any records that must be retained under the conditions of this permit;

(c) Inspect at reasonable times any facilities, equipment (including monitoring equipment), practices, or operations regulated or required under this permit; and

(d) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the SDWA, any substances or parameters at any facilities, equipment or operations regulated or required under this permit.

8. Records

(a) The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all records required by this permit for a period of at least three (3) years from the date of the sample, measurement or report. The permittee shall also maintain records of all data required to complete this permit application and any supplemental information submitted under 40 CFR 144.31 and 144.51. These periods may be extended by request of the Director at any time by written notice to the permittee.

(b) The permittee shall retain records concerning the nature and composition of all injected fluids until three (3) years after the completion of plugging and abandonment in accordance with the plugging and abandonment plan, contained in Part III(B) of this permit. The owner or operator shall continue to retain the records after the three (3) year retention period unless he delivers the records to the Regional Administrator or obtains written approval from the Regional Administrator to discard the records.

(c) Records of monitoring information shall include:

(i) The date, exact place, and the time of sampling or measurements;

(ii) The name(s) of the individual(s) who performed the sampling or measurements;

(iii) A precise description of both sampling methodology and the handling of samples;

(iv) The date(s) analyses were performed;

(v) The name(s) of the individual(s) who performed the analyses;

(vi) The analytical techniques or methods used; and

(vii) The results of such analyses.

9. Notification Requirements

(a) Planned Changes - The permittee shall notify and obtain the Director's approval at least thirty (30) days prior to any planned physical alterations or additions to the permitted facility or changes in the injection fluids. Within ten (10) days prior to injection, an analysis of new injection fluids shall be submitted to the Director in accordance with Parts II(B)(2) and II(B)(3) of this permit.

(b) Anticipated Noncompliance - The permittee shall give at least thirty (30) days advance notice to the Director for his/her approval of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(c) Transfer of Permits - This permit is not transferrable to any person except after notice is sent to the Director at least thirty (30) days prior to transfer and the requirements of 40 CFR §144.38 have been met. The Director may require modification or revocation of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the SDWA.

(d) Compliance Schedules - Reports of compliance or non-compliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted to the Director no later than thirty (30) days following each schedule date.

(e) Twenty-Four (24) Hour Reporting

(i) The permittee shall report to the Director any noncompliance which may endanger health or the

environment. This information shall be provided orally within twenty-four(24)hours from the time the permittee becomes aware of the circumstances and shall include the following information:

(a) Any monitoring or other information which indicates that any contaminant may cause an endangerment to an underground source of drinking water; or

(b) Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between underground sources of drinking water.

(ii) A written submission shall also be provided as soon as possible but no later than five (5) days from the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

(f) Other Noncompliance - All other instances of noncompliance shall also be reported by the permittee in accordance with Part I(E)(9)(e)(i) and (ii) of this permit.

(g) Other Information - If or when the permittee becomes aware that the permittee failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit such facts or corrected information in accordance with 40 CFR 144.51(l)(8).

(h) Report on Permit Review - Within thirty (30) days of receipt of the final issued permit, the permittee shall report to the Director that the permittee has read and is personally familiar with all terms and conditions of this permit.

10. Commencing Injection - The permittee shall not commence injection into any newly drilled or converted well until:

(a) Formation data and injection fluid analysis have been submitted in accordance with Part II(A)(5) and II(B)(2)(c), respectively;

(b) A report on any logs and tests required under Part II(A)(4) of this permit has been submitted;

(c) Mechanical integrity of the well has been demonstrated in accordance with Part I(E)(18);

(d) Any required corrective action has been performed in accordance with Parts I(E)(17) and III(C); and

(e) Construction is complete and the permittee has submitted to the Director, by certified mail with return receipt requested, a notice of completion of construction using EPA Form 7520-10, a plugging and abandonment plan, a copy of the State permit and either:

(i) The Director has inspected or otherwise reviewed the new injection well and finds it is in compliance with the conditions of the permit; or

(ii) The permittee has not received, within thirteen (13) days of the date of the Director's receipt of the report required above, notice from the Director of his or her intent to inspect or otherwise review the new injection well, in which case prior inspection or review is waived and the permittee may commence injection.

11. Signatory Requirements - All reports or other information requested by the Director shall be signed and certified according to 40 CFR 144.32.

12. Notice of Plugging and Abandonment - The permittee shall notify the Director at least forty-five (45) working days before conversion or abandonment of the injection well.

13. Plugging and Abandonment - The permittee shall plug and abandon the well as provided in the plugging and abandonment plan contained in Part III(B) of this permit. Within sixty (60) working days after plugging a well, or at the time of the next quarterly report (whichever is later), the permittee shall submit a report to the Director. The report shall be certified as accurate by the person who performed the plugging operation and shall consist of either:

(a) A statement that the well was plugged in accordance with the plan previously submitted to the Director; or

(b) If the actual plugging differed from the approved plan, a statement defining the actual plugging and explaining why the Director should approve such deviation. Any deviation from a previously approved plan which may endanger underground sources of drinking water is cause for the Director to require the operator

to replug the well.

14. **Inactive Wells** - After cessation of injection for two (2) years the permittee shall plug and abandon a well in accordance with the plan and 40 CFR 144.52 (a)(6) unless the permittee has:

(a) Provided notice to the Director; and

(b) Described actions or procedures, which are deemed satisfactory by the Director, that the permittee will take to ensure that the well will not endanger underground sources of drinking water during the period of temporary abandonment. These actions and procedures shall include compliance with the technical requirements applicable to active injection wells unless waived, in writing, by the Director.

15. **Financial Responsibility** - The permittee shall maintain financial responsibility and resources to plug and abandon the underground injection well in accordance with 40 CFR 144.52(a)(7) as provided in Attachment R of the administrative record corresponding to this permit action which is hereby incorporated by reference as if it appeared fully set forth herein. The permittee shall not substitute an alternative demonstration of financial responsibility from that which the Director has approved unless the permittee has previously submitted evidence of that alternative demonstration to the Director and the Director has notified the permittee in writing that the alternative demonstration of financial responsibility is acceptable. The financial responsibility mechanism shall be updated periodically, upon request of the Director, except when Financial Statement Coverage is used as the financial mechanism; this coverage must be updated on an annual basis.

16. Insolvency

(a) In the event of the bankruptcy of the trustee or issuing institution of the financial mechanism, or a suspension or revocation of the authority of the trustee institution to act as trustee or the institution issuing the financial mechanism to issue such an instrument, the permittee must submit an alternative demonstration of financial responsibility acceptable to the Director within sixty (60) days after such event. Failure to do so will result in the termination of this permit pursuant to 40 CFR 144.40(a)(1).

(b) An owner or operator must also notify the Director by certified mail of the commencement of voluntary or involuntary proceedings under Title 11 (Bankruptcy), U.S. Code, naming the owner or operator as debtor, within ten (10) business days after the commencement of the proceeding. A guarantor of a corporate guarantee must make such a notification if he or she is named as debtor, as required under the terms of the guarantee.

17. Corrective Action

The permittee shall shut-in the injection well whenever the permittee or USEPA determines that operation thereof may be causing upward fluid migration through the well bore of any improperly plugged or unplugged well in the area of review and shall take such steps as the permittee can to properly plug the offending well(s). Any operation of the well which may cause upward fluid migration from an improperly plugged or unplugged well will be considered a violation of this permit. If the permittee or USEPA determines that the permitted well is not in compliance with 40 CFR 146.8, the permittee will immediately shut-in the well until such time as appropriate repairs can be effected and written approval to resume injection is given by the Director. In addition, the permittee shall not commence injection until any and all corrective action has been taken in accordance with any plan contained in Part III(C) of this permit and the requirements in Part I(E)(10) of this permit have been met.

18. Mechanical Integrity (MI) - The permittee must establish and shall maintain mechanical integrity of this well in accordance with 40 CFR 146.8. The mechanical integrity demonstration consists of two parts: Part I demonstrates no significant leaks in the casing, tubing, or packer and Part II demonstrates no significant fluid movement into an underground source of drinking water (USDW) through vertical channels adjacent to the wellbore. The permittee is required to pass both parts of the mechanical integrity demonstration in accordance with Part I(E)(18)(a) and (b) of this permit and thereafter once every sixty (60) months from the date of the last approved demonstration.

(a) Pursuant to 40 CFR 146.8(a)(1), prior to commencing injection into any newly drilled well, the permittee shall demonstrate the first part of MI by using the standard annulus pressure test or another approved method.

(b) Pursuant to 40 CFR 146.8(a)(2), prior to commencing injection, the permittee shall demonstrate the second part of MI by running a noise, temperature or oxygen activation log. A descriptive report interpreting the results of such logs and tests shall be prepared by a knowledgeable log analyst and submitted to the Director. However, should the nature of the casing preclude the use of a noise, temperature or oxygen activation log, then pursuant to 40 CFR 146.8(c)(3), cementing records may be used to demonstrate the presence of adequate cement to prevent fluid migration behind the outermost casing and the wellbore.

(c) The permittee shall cause all gauges used in mechanical integrity demonstrations to be calibrated to an accuracy of not less than one-half percent (0.5%) of full scale. A copy of the calibration certificate shall be submitted to the Director or his/her representative at the time of

demonstration.

(d) The permittee shall cease injection in a well if a loss of mechanical integrity occurs or is discovered during a test, or a loss of mechanical integrity as defined by 40 CFR 146.8 becomes evident during operation. Operation of the well shall not resume until the Director gives approval to recommence.

(e) The permittee shall notify the Director of the loss of mechanical integrity in accordance with the reporting procedures in Part I (E)(9)(e) and II (B)(3)(b) of this permit.

(f) The permittee shall report the results of a satisfactory mechanical integrity demonstration as provided in Part II (B)(3)(b) of this permit.

19. Restriction on Injected Substances - The permittee shall be restricted to the injection of fresh water from the Municipality or from water wells on-site. No fluids other than those from sources noted in the administrative record and approved by the Director shall be injected. Each year, the permittee shall submit, a certified statement attesting to compliance with this requirement.

20. Construction, conversion, operation and plugging & abandonment within the permit area - The permittee may construct, operate, convert, or plug and abandon wells within the permit area, provided that all permit conditions are met and :

(a) The permittee notifies the Director at such times as specified in the permit, and,

(b) Any additional wells are:

(i) Described and identified by location;

(ii) Located within the same well field, facility site, reservoir project, or similar unit in the same State, and injecting in the same formation; and,

(iii) Operated by the permittee.

PART II

WELL SPECIFIC CONDITIONS FOR UNDERGROUND INJECTION CONTROL PERMITS

A. CONSTRUCTION REQUIREMENTS

1. Siting - Notwithstanding any other provision of this permit, the injection well shall inject only into a formation which is separated from any USDW by a confining zone that is free of known open faults or fractures within the area of the review.

2. Casing and Cementing - Injection wells shall be cased and cemented to prevent the movement of fluids into or between underground sources of drinking water. The casing and cement used in the construction of the well shall be as contained in Attachments L and M of the administrative record corresponding to this permit action which are hereby incorporated by reference as if they appeared fully set forth herein.

3. Wellhead Specifications - A female coupling and valve shall be installed at the wellhead to be used for independent injection pressure readings.

4. Logs and Tests - Upon approval of the surface casing and cementation records by the Director, any logs and tests noted in Part III of this permit shall be performed, unless already provided. Prior to commencement of injection, the permittee shall submit to the Director for approval a descriptive report prepared by a knowledgeable log analyst interpreting the results of those logs and tests, along with the notice of completion required in Part I(E)(10) of this permit.

5. Formation Data - If not already provided, the permittee shall determine or calculate the following information concerning the injection formation and submit it to the Director for review and approval, prior to operation:

   (a) Formation fluid pressure;

   (b) Fracture pressure; and,

   (c) Physical and chemical characteristics of the formation fluids

6. Prohibition of Unauthorized Injection - Any underground injection, except as authorized by permit or rule issued under the UIC program, is prohibited. The construction, including drilling, of any well required to have a permit is prohibited until a permit has been issued and is effective.

B. OPERATING, MONITORING AND REPORTING REQUIREMENTS

1. Operating Requirements

Beginning on the effective date of this permit, the permittee is authorized to operate the injection well, subject to the limitations and monitoring requirements set forth herein. Except during stimulation, injection pressure at the wellhead shall not exceed a maximum which shall be calculated so as to assure that the pressure in the injection zone during injection does not initiate new fractures or propagate existing fractures in the injection zone. In no case shall injection pressure initiate fractures in the confining zone or cause the movement of injection or formation fluids into an underground source of drinking water. The injection pressure and injected fluid shall be limited and monitored as specified in Parts I(E)(19) and III(A) of this permit.

2. Monitoring Requirements

(a) Samples and measurements taken for the purpose of monitoring as required in Part II(B)(3) shall be representative of the monitored activity. Grab samples shall be used to obtain a representative sample of the fluid to be analyzed. Part III(A) of this permit describes the sampling location and required parameters for injection fluid analysis. The permittee shall identify the types of tests and methods used to generate the monitoring data. The monitoring program shall conform to the one described in Part III(A) of this permit.

(b) **Analytical Methods** - Monitoring of the nature of injected fluids shall comply with applicable analytical methods cited and described in Table I of 40 CFR Section 136.3 or in Appendix III of 40 CFR Part 261 or by other methods that have been approved by the Director.

(c) **Injection Fluid Analysis** - The nature of the injection fluids shall be monitored as specified in Part III(A) of this permit. An initial analysis of the injection fluid is contained in Attachment H of the administrative record corresponding to this permit action which is hereby incorporated by reference as if it appeared fully set forth herein. Whenever the injection fluid is modified to the extent that the analysis required by 40 CFR 146.34(a)(7)(iii) is incorrect or incomplete a new analysis shall be provided to the Director at the time of the next quarterly report. The Director may, by written notice, require the permittee to sample and analyze the injection fluid at any time.

(d) **Injection Pressure and Cumulative Volume** - The injection pressure shall be monitored semi-monthly and shall be reported quarterly as

specified in Part III(A) of this permit. The injected and produced fluid volumes shall be monitored daily and shall be reported quarterly. All gauges used in monitoring shall be calibrated according to Part I E(18)(c) of this permit.

3. Reporting Requirements - Copies of the monitoring results and all other reports shall be submitted to the Director at the following address:

U.S. Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590
Attn: UIC Branch, Direct Implementation Section (WU-16J)

(a) Quarterly Reports - The permittee shall submit the results of the injection fluid analyses specified in permit conditions in Part (II)(B)(2)(c) and in Attachment A no later than the 10th day of the month following the end of the reporting period. Monitoring results shall be recorded on a form which has been signed and certified according to 40 CFR 144.32. Forms shall be submitted at the end of each quarter and shall be postmarked no later than the 10th day of the month following the reporting period. The first report shall be sent no later than the 10th day of the month following the quarter in which injection commences. This report shall include monthly average, maximum and minimum values for injection pressure, injected and produced volumes and the specific gravity of the injected fluids.

b) Reports on Well Tests, Workovers, and Plugging and Abandonment - The applicant shall provide the Director with the following reports and test results within sixty (60) days of completion of the activity:

(i) Mechanical integrity tests, except tests which the well fails, in which case twenty-four (24) hour reporting under Part I(9)(e) is applicable;

(ii) Logging or other test data;

(iii) Well workovers (using EPA Form 7520-12); and

(iv) Plugging and abandonment.

PART III
SPECIAL CONDITIONS

These special conditions include, but are not limited to, plans for maintaining correct operating procedures, monitoring conditions and reporting, as required by 40 CFR Parts 144 and 146. These plans are described in detail in the permittee's application for a permit, and the permittee is required to adhere to these plans as approved by the Director, as follows:

A. OPERATING, MONITORING AND REPORTING REQUIREMENTS (ATTACHED)

B. PLUGGING AND ABANDONMENT PLAN (ATTACHED)

C. CORRECTIVE ACTION PLAN (ATTACHED)

D. ADDITIONAL REQUIREMENTS (IF REQUIRED)

MI-163-3G-A002
Page A-1 of 1

OPERATING, MONITORING AND REPORTING REQUIREMENTS

	LIMITATION	MINIMUM MONITORING REQUIREMENTS		MINIMUM REPORTING REQUIREMENTS
Characteristic		Freq	Type	
*Injection Pressure 382 psig (MAXIMUM)		semi-monthly		quarterly
Cumulative Injected Volume		daily		quarterly
Cumulative Produced Volume		daily		quarterly
Specific Gravity		monthly	grab	quarterly
**Chemical Composition of Injected Fluid		quarterly	grab	quarterly

SAMPLING LOCATION: wellhead

*The limitation on wellhead pressure serves to prevent injection formation fracturing. The maximum wellhead pressure is dependent upon injection formation fracture gradient, depth and specific gravity of the injected fluid. This limitation was calculated using the following formula: [{0.8 psi/ft - 0.433 psi/ft)(specific gravity)} x depth] - 14.7 psi]. The F member of the Salina formation at 1150 feet was used as the depth, a specific gravity of 1.05 was used for the injected fluid and a fracture gradient of 0.8 psi/ft was determined from a default value for Michigan.

**Chemical composition analysis shall include, but not be limited to, the following: Sodium, Calcium, Magnesium, Total Iron, Chloride, Sulfate, Carbonate, Bicarbonate, Sulfide, Total Dissolved Solids, pH, Resistivity (ohm-meters @ 75°F).

382 psi injection pressure

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

PLUGGING AND ABANDONMENT PLAN

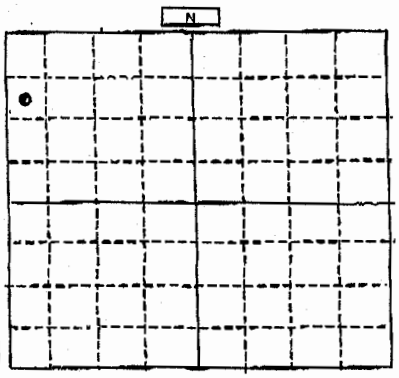
WELL NAME & NUMBER, FIELD NAME, LEASE NAME & NUMBER

LPG Storage #4

NAME, ADDRESS, & PHONE NUMBER OF OWNER / OPERATOR

Sunoco Partners Marketing and Terminals LLp
7155 Inkster Rd
Taylor Michigan 48180
313-292-9822

Locate Well and Outline Unit on Section Plat - 640 Acres



STATE	COUNTY	STATE PERMIT NUMBER
Michigan	Wayne	20404

SURFACE LOCATION DESCRIPTION
SW 1/4 of NW 1/4 of NW 1/4 of Section 7 Township 3S Range 10E

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT
Surface Location 680 ft. From (N/S) North Line of Quarter Section
And 420 ft. From (E/W) West Line of Quarter Section

TYPE OF AUTHORIZATION
- ☐ Individual Permit
- ☑ Rule
- ☐ Area Permit

Number of Wells in Area Permit ____

US EPA Permit Number ____

WELL ACTIVITY
- ☐ Class I
  - ☐ Hazardous
  - ☐ Nonhazardous
- ☐ Class II
  - ☐ Brine Disposal
  - ☑ Hydrocarbon Storage
  - ☐ Enhanced Recovery
- ☐ Class III
- ☐ Class IV

CASING/TUBING/CEMENT RECORD AFTER PLUGGING AND ABANDONMENT

Size	Wt (lb/ft) TBG/CSG	Original Amount (CSG)	CSG to be Left in Well	Hole Size	Sacks Cement Used	Type
16"	55&65	240	240	20"	235	Class A
10 3/4"	32.75	1570	1570	13 3/4"	800	Class A

METHOD OF EMPLACEMENT OF CEMENT PLUGS
- ☑ Balance Method
- ☐ Dump Bailer Method
- ☐ Two Plug Method
- ☐ Other

CEMENT TO PLUG AND ABANDON DATA	Plug #	Plug #	Plug #	Plug#	Plug #	Plug #	Plug #
Size of Hole or Pipe in Which Plug Will Be Placed (inches)	10.19"	10 1/6					
Calculated Top of Plug (ft.)		0					
Measured Top of Plug (ft.)		0					
Depth to Bottom of Plug (ft.)	1585'	1565'					
Sacks of Cement to be Used		770					
Slurry Volume to be Used (cu. Ft.)		908					
Slurry Weight (lb./gal.)		15.6					
Type of Cement, Spacer or Other Material Used	Bridge Plug	Class A					
Type of Preflush Used		Fresh					

DESCRIPTION OF PLUGGING PROCEDURE

1. Pull Tubing
2. Set Bridge Plug at 1585'
3. Trip in hole with tubing and spot 770 sxs Class A cement in 500' stages from 1565-0'
4. Cut off all casings 3' below grade and weld on 1/2 inch steel plate. Weld MDEQ # on cap
5. Prepare and file MDEQ and EPA Plugging Reports.

ESTIMATED COST OF PLUGGING AND ABANDONMENT

Cement	$ -	12,240	Cast Iron Bridge Plug	$ -	2,800
Logging	$ -	0	Cement Retainer	$ -	0
Rig or Pulling Unit	$ -	5,700	Miscellaneous	$ -	8,612
	$ -		Total	$ -	29,352

CERTIFICATION

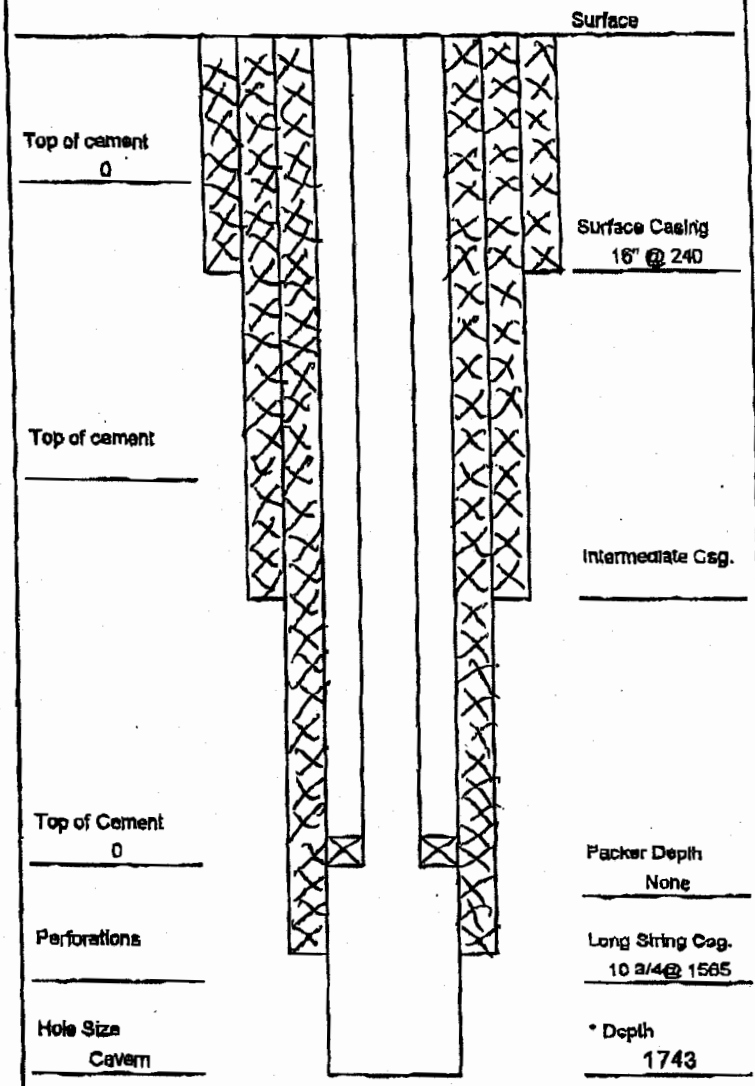
I certify under the penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)

NAME AND OFFICIAL TITLE	SIGNATURE	DATE SIGNED
Dave Justin Vice President		7/27/2004

EPA Form 7520-14

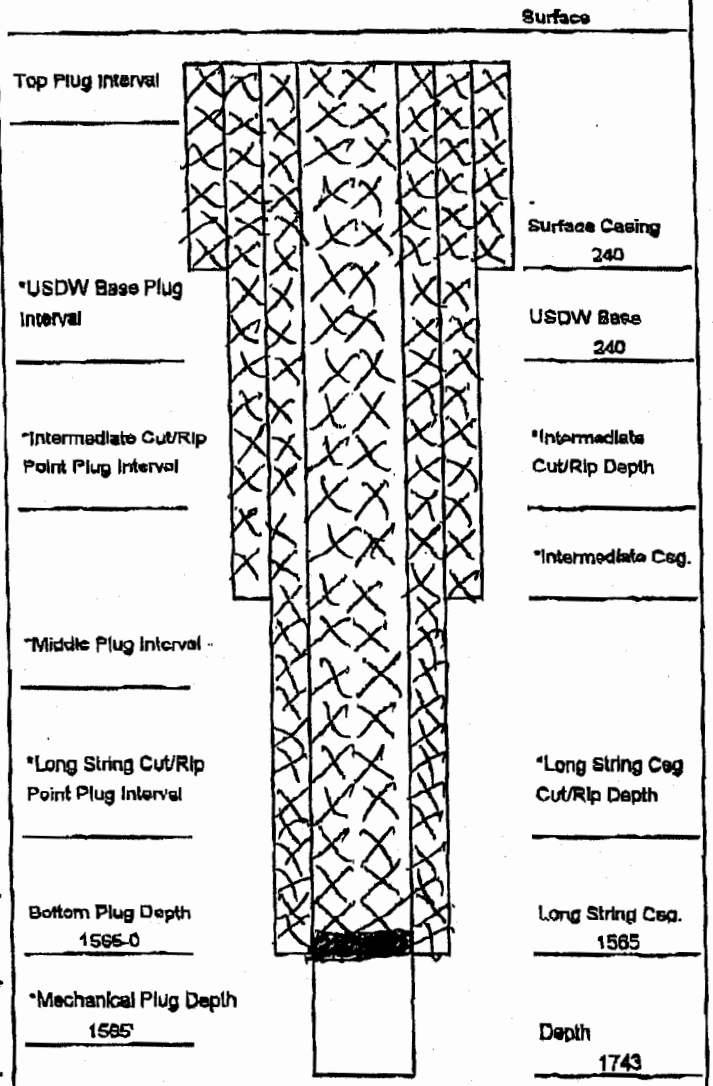
ORIGINAL WELL CONSTRUCTION DURING OPERATION

LPG #4



** Add Any Additional Information
* May not Apply

PLUGGING AND ABANDONMENT CONSTRUCTION



** Add Any Additional Information
* May not Apply

LIST OF ALL OPEN AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED

Specify Open Hole/ Perforations/ Varied Casing	From	To	Formation Name
Open Hole	1570	1743	B- Salt

UNITED STATES ENVIRONMENTAL PROTECTION AGENC
WASHINGTON, D.C. 20460

PLUGGING AND ABANDONMENT PLAN

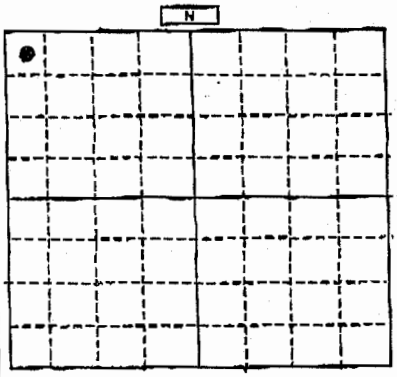
WELL NAME & NUMBER, FIELD NAME, LEASE NAME & NUMBER

LPG Storage #5

NAME, ADDRESS, & PHONE NUMBER OF OWNER / OPERATOR

Sunoco Partners Marketing and Terminals LLp
7155 Inkster Rd
Taylor Michigan 48180
313-292-9822

Locate Well and Outline Unit on Section Plat - 640 Acres



STATE	COUNTY	STATE PERMIT NUMBER
Michigan	Wayne	21521

SURFACE LOCATION DESCRIPTION

NW 1/4 of NW 1/4 of NW 1/4 of Section 7 Township 3S Range 10E

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface Location 440 ft. From (N/S) North Line of Quarter Section
And 575 ft. From (E/W) West Line of Quarter Section

TYPE OF AUTHORIZATION

- ☐ Individual Permit
- ☑ Rule
- ☐ Area Permit

Number of Wells in Area Permit ____

US EPA Permit Number ____

WELL ACTIVITY

- ☐ Class I
  - ☐ Hazardous
  - ☐ Nonhazardous
- ☐ Class II
  - ☐ Brine Disposal
  - ☑ Hydrocarbon Storage
  - ☐ Enhanced Recovery
- ☐ Class III
- ☐ Class IV

CASING/TUBING/CEMENT RECORD AFTER PLUGGING AND ABANDONMENT

Size	Wt (lb/ft) TBG/CSG	Original Amount (CSG)	CSG to be Left in Well	Hole Size	Sacks Cement Used	Type
16"	55	240	240	20"	600	Class A
10 3/4"	32.75	1540	1540	13 3/4"	800	Class A

METHOD OF EMPLACEMENT OF CEMENT PLUGS

- ☑ Balance Method
- ☐ Dump Bailer Method
- ☐ Two Plug Method
- ☐ Other

CEMENT TO PLUG AND ABANDON DATA	Plug #	Plug #	Plug #	Plug#	Plug #	Plug #	Plug #
Size of Hole or Pipe in Which Plug Will Be Placed (inches)	10.19"	10 1/5					
Calculated Top of Plug (ft.)		0					
Measured Top of Plug (ft.)		0					
Depth to Bottom of Plug (ft.)	1530'	1530					
Sacks of Cement to be Used		730					
Slurry Volume to be Used (cu. Ft.)		861					
Slurry Weight (lb./gal.)		15.6					
Type of Cement, Spacer or Other Material Used	Bridge Plug	Class A					
Type of Freflush Used		Fresh					

DESCRIPTION OF PLUGGING PROCEDURE

1. Pull Tubing
2. Set Bridge Plug at 1530'
3. Trip in hole with tubing and spot 730 sxs Class A cement in 500' stages from 1530-0'
4. Cut off all casings 3' below grade and weld on 1/2 inch steel plate. Weld MDEQ # on cap
5. Prepare and file MDEQ and EPA Plugging Reports.

ESTIMATED COST OF PLUGGING AND ABANDONMENT

Cement	$ -	11,760	Cast Iron Bridge Plug	$ -	2,800
Logging	$ -	0	Cement Retainer	$ -	0
Rig or Pulling Unit	$ -	5,700	Miscellaneous	$ -	8,612
	$ -		Total	$ -	28,827

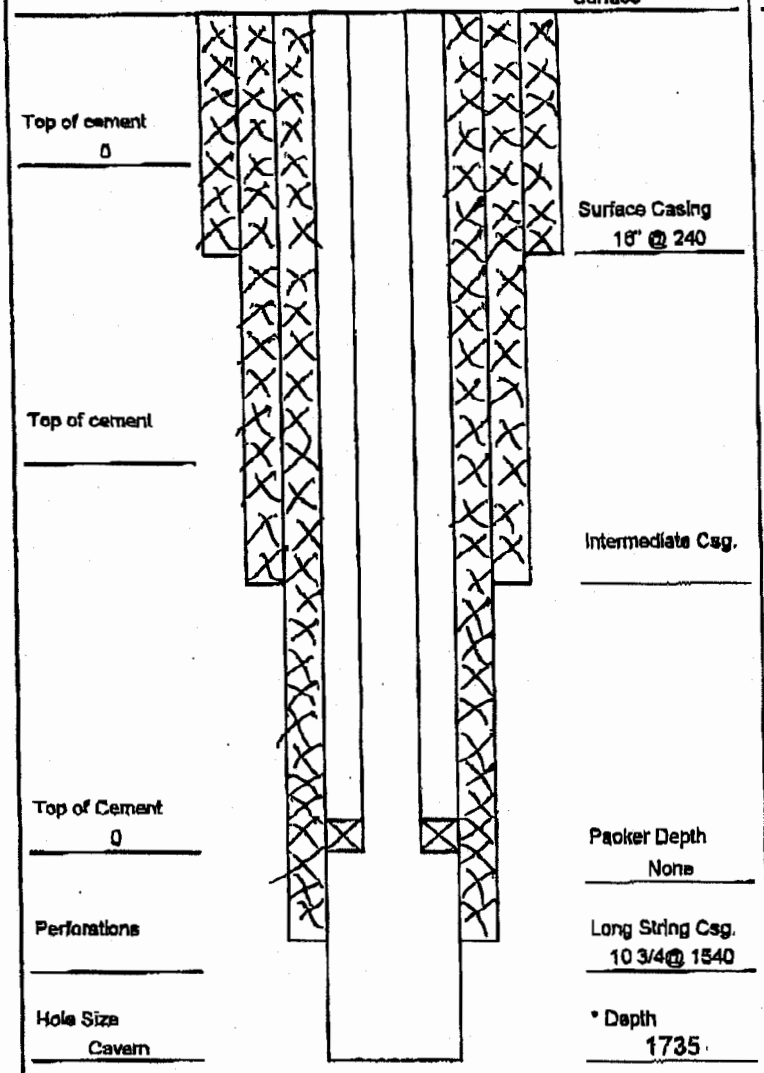
CERTIFICATION

I certify under the penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref 40 CFR 144.32)

NAME AND OFFICIAL TITLE	SIGNATURE	DATE SIGNED
Dave Justin Vice President		7/27/2004

ORIGINAL WELL CONSTRUCTION DURING OPERATION

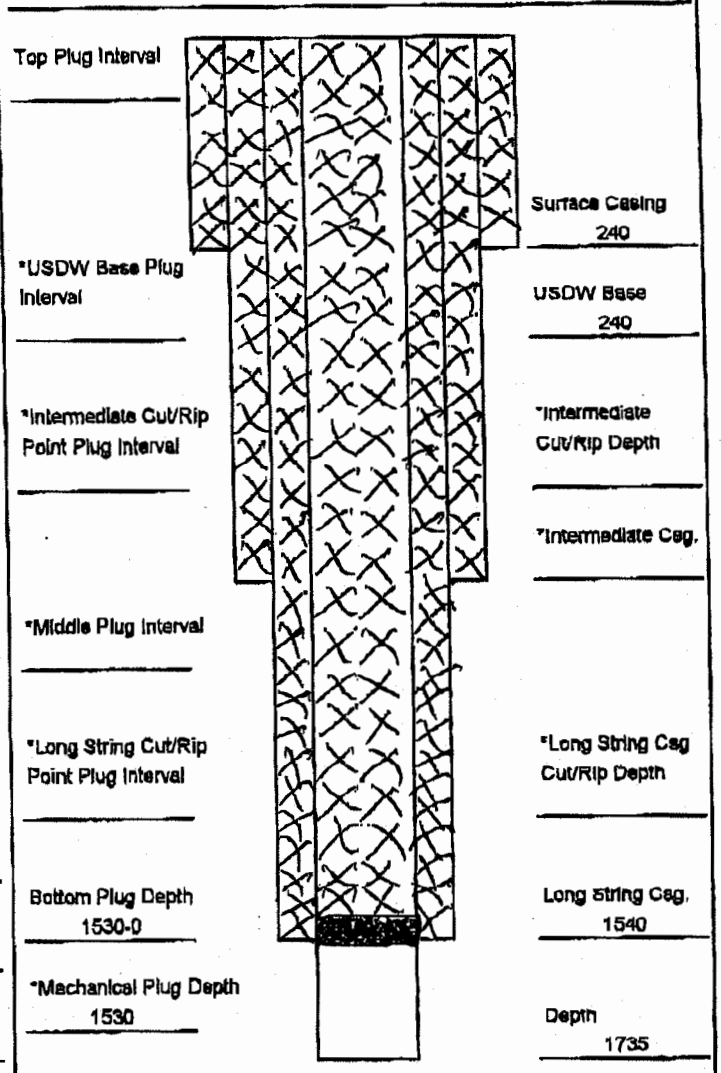
LPG #5



** Add Any Additional Information

* May not Apply

PLUGGING AND ABANDONMENT CONSTRUCTION



** Add Any Additional Information

* May not Apply

LIST OF ALL OPEN AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED

Specify Open Hole/ Perforations/ Varied Casing	From	To	Formation Name
Open Hole	1540	1735	B- Salt

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

PLUGGING AND ABANDONMENT PLAN

WELL NAME & NUMBER, FIELD NAME, LEASE NAME & NUMBER

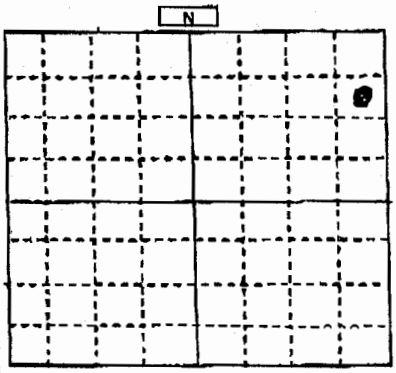
LPG Storage #7

NAME, ADDRESS, & PHONE NUMBER OF OWNER / OPERATOR

Sunoco Partners Marketing and Terminals LLp
7165 Inkster Rd
Taylor Michigan 48180
313-292-9822

Locate Well and Outline Unit on Section Plat - 640 Acres

N



STATE: Michigan
COUNTY: Wayne
STATE PERMIT NUMBER: 26443

SURFACE LOCATION DESCRIPTION
SE 1/4 of NE 1/4 of NE 1/4 of Section 12 Township 3S Range 9E

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT
Surface Location 846 ft. From (N/S) North Line of Quarter Section
And 237 ft. From (E/W) East Line of Quarter Section

TYPE OF AUTHORIZATION

- ☐ Individual Permit
- ☑ Rule
- ☐ Area Permit

Number of Wells in Area Permit ____

US EPA Permit Number ____

WELL ACTIVITY

- ☐ Class I
  - ☐ Hazardous
  - ☐ Nonhazardous
- ☐ Class II
  - ☐ Brine Disposal
  - ☑ Hydrocarbon Storage
  - ☐ Enhanced Recovery
- ☐ Class III
- ☐ Class IV

CASING/TUBING/CEMENT RECORD AFTER PLUGGING AND ABANDONMENT

Size	Wt (lb/ft) Top/Bot	Original Amount (CSG)	CSG to be Left in Well	Hole Size	Sacks Cement Used	Type
16"	65	258	258	20"	400	Class A
10 3/4"	32.75	1507	1507	13 3/4"	800	Class A

METHOD OF EMPLACEMENT OF CEMENT PLUGS

- ☑ Balance Method
- ☐ Dump Bailer Method
- ☐ Two Plug Method
- ☐ Other

CEMENT TO PLUG AND ABANDON DATA	Plug #	Plug #	Plug #	Plug#	Plug #	Plug #	Plug #
Size of Hole or Pipe in Which Plug Will Be Placed (inches)	10.19"	10 1/5					
Calculated Top of Plug (ft.)		0					
Measured Top of Plug (ft.)		0					
Depth to Bottom of Plug (ft.)	1497	1497'					
Sacks of Cement to be Used		720					
Slurry Volume to be Used (cu. Ft.)		849					
Slurry Weight (lb./gal.)		15.8					
Type of Cement, Spacer or Other Material Used	Bridge Plug	Class A					
Type of Preflush Used		Fresh					

DESCRIPTION OF PLUGGING PROCEDURE

1. Pull Tubing
2. Set Bridge Plug at 1497'
3. Trip in hole with tubing and spot 720 sxs Class A cement in 500' stages from 1497-0'
4. Cut off all casings 3' below grade and weld on 1/2 inch steel plate. Weld MDEQ # on cap
5. Prepare and file MDEQ and EPA Plugging Reports.

ESTIMATED COST OF PLUGGING AND ABANDONMENT

Cement	$ -	11,640	Cast Iron Bridge Plug	$ -	2,600
Logging	$ -	0	Cement Retainer	$ -	0
Rig or Pulling Unit	$ -	6,700	Miscellaneous	$ -	6,812
	$ -		Total	$ -	28,734

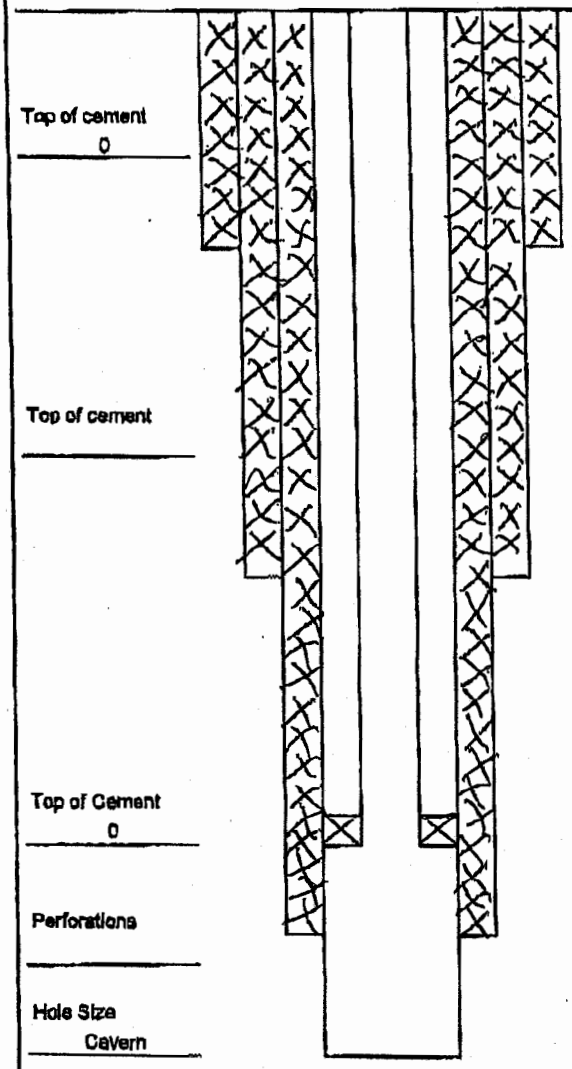
CERTIFICATION

I certify under the penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref 40 CFR 144.32)

NAME AND OFFICIAL TITLE	SIGNATURE	DATE SIGNED
Dave Justin Vice President		7/27/2004

ORIGINAL WELL CONSTRUCTION DUR..3 OPERATION

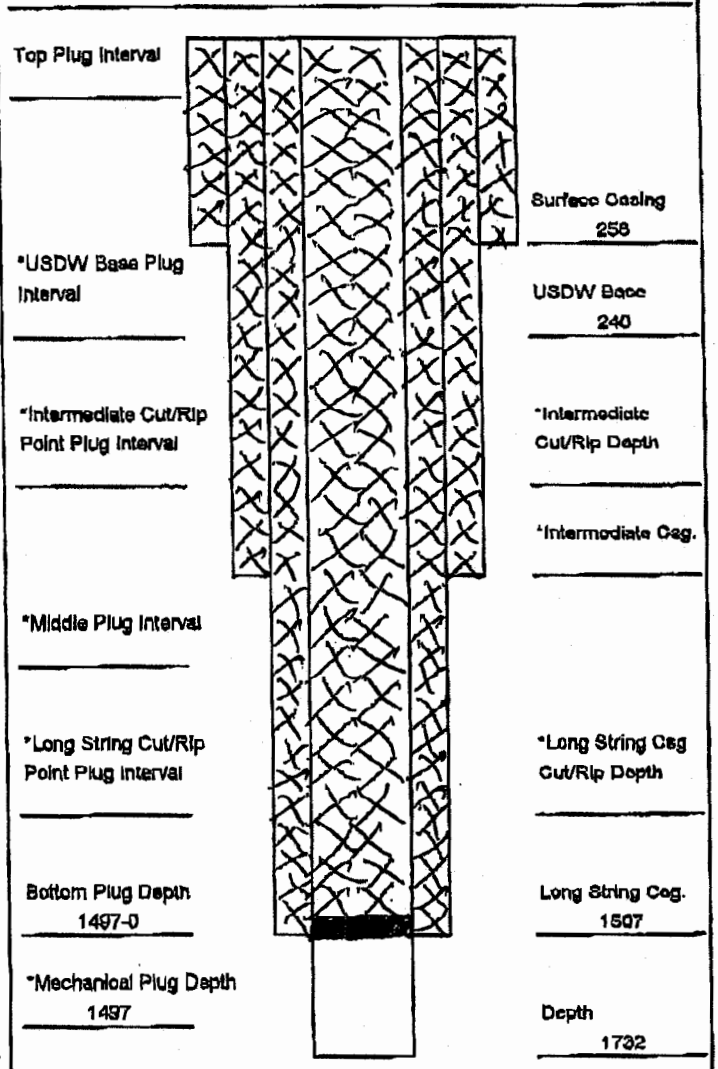
LPG #7



** Add Any Additional Information

* May not Apply

PLUGGING ANL . .BANDONMENT CONSTRUCTION



** Add Any Additional Information

* May not Apply

LIST OF ALL OPEN AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED

Specify Open Hole/ Perforations/ Varied Casing	From	To	Formation Name
Open Hole	1507	1732	D- Salt

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

PLUGGING AND ABANDONMENT PLAN

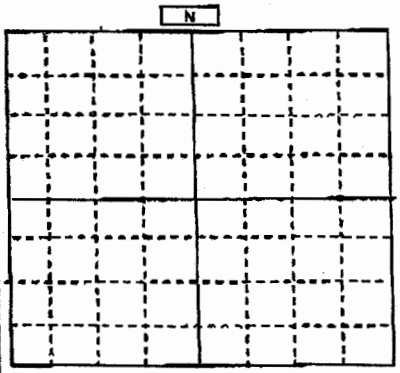
WELL NAME & NUMBER, FIELD NAME, LEASE NAME & NUMBER

LPG Storage #9

NAME, ADDRESS, & PHONE NUMBER OF OWNER / OPERATOR

Sunoco Partners Marketing and Terminals LLp
7155 Inkster Rd
Taylor Michigan 48180
313-292-9822

Locate Well and Outline Unit on Section Plat - 640 Acres



STATE	COUNTY	STATE PERMIT NUMBER
Michigan	Wayne	29090

SURFACE LOCATION DESCRIPTION

SE 1/4 of NE 1/4 of NE 1/4 of Section 12 Township 3S Range 9E

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface Location 1288 ft. From (N/S) North Line of Quarter Section
And 233 ft. From (E/W) East Line of Quarter Section

TYPE OF AUTHORIZATION

- ☐ Individual Permit
- ☑ Rule
- ☐ Area Permit

Number of Wells in Area Permit ____

US EPA Permit Number ____

WELL ACTIVITY

- ☐ Class I
  - ☐ Hazardous
  - ☐ Nonhazardous
- ☐ Class II
  - ☐ Brine Disposal
  - ☑ Hydrocarbon Storage
  - ☐ Enhanced Recovery
- ☐ Class III
- ☐ Class IV

CASING/TUBING/CEMENT RECORD AFTER PLUGGING AND ABANDONMENT

Size	Wt (lb/ft) TSG/CSG	Original Amount (CSG)	CSG to be Left in Well	Hole Size	Sacks Cement Used	Type
16"	55	247	247	20"	550	Class A
10 3/4"	32.75	1499	1499	13 3/4"	755	Class A

METHOD OF EMPLACEMENT OF CEMENT PLUGS

- ☑ Balance Method
- ☐ Dump Bailer Method
- ☐ Two Plug Method
- ☐ Other

CEMENT TO PLUG AND ABANDON DATA	Plug #	Plug #	Plug #	Plug#	Plug #	Plug #	Plug #
Size of Hole or Pipe in Which Plug Will Be Placed (inches)	10.19"	10 1/6					
Calculated Top of Plug (ft.)		0					
Measured Top of Plug (ft.)		0					
Depth to Bottom of Plug (ft.)	1482	1482					
Sacks of Cement to be Used		720					
Slurry Volume to be Used (cu. Ft.)		849					
Slurry Weight (lb./gal.)		15.6					
Type of Cement, Spacer or Other Material Used	Bridge Plug	Class A					
Type of Preflush Used		Fresh					

DESCRIPTION OF PLUGGING PROCEDURE

1. Pull Tubing
2. Set Bridge Plug at 1482"
3. Trip in hole with tubing and spot 720 sxs Class A cement in 500' stages from 1482-0'
4. Cut off all casings 3' below grade and weld on 1/2 inch steel plate. Weld MDEQ # on cap
5. Prepare and file MDEQ and EPA Plugging Reports.

ESTIMATED COST OF PLUGGING AND ABANDONMENT

Cement	$ -	11,640	Cast Iron Bridge Plug	$ -	2,800
Logging	$ -	0	Cement Retainer	$ -	0
Rig or Pulling Unit	$ -	5,700	Miscellaneous	$ -	8,612
	$ -		Total	$ -	28,734

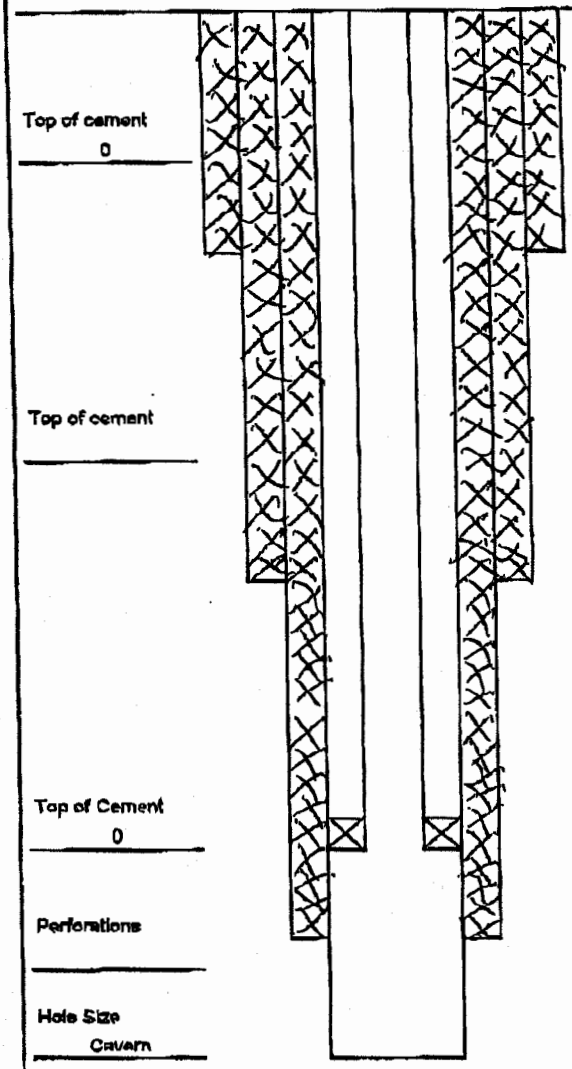
CERTIFICATION

I certify under the penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)

NAME AND OFFICIAL TITLE	SIGNATURE	DATE SIGNED
Dave Justin Vice President		7/27/2004

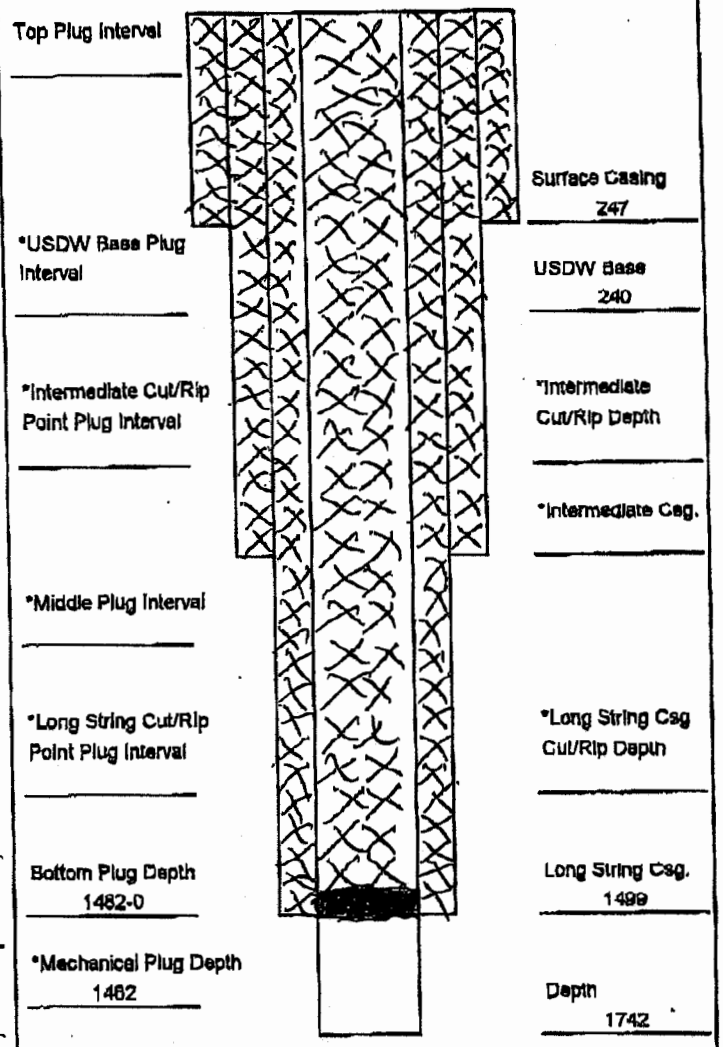
ORIGINAL WELL CONSTRUCTION DURING OPERATION

LPG #9



** Add Any Additional Information
* May not Apply

PLUGGING AND ABANDONMENT CONSTRUCTION



** Add Any Additional Information
* May not Apply

LIST OF ALL OPEN AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED

Specify Open Hole/ Perforations/ Varied Casing	From	To	Formation Name
Open Hole	1499	1742	B- Salt

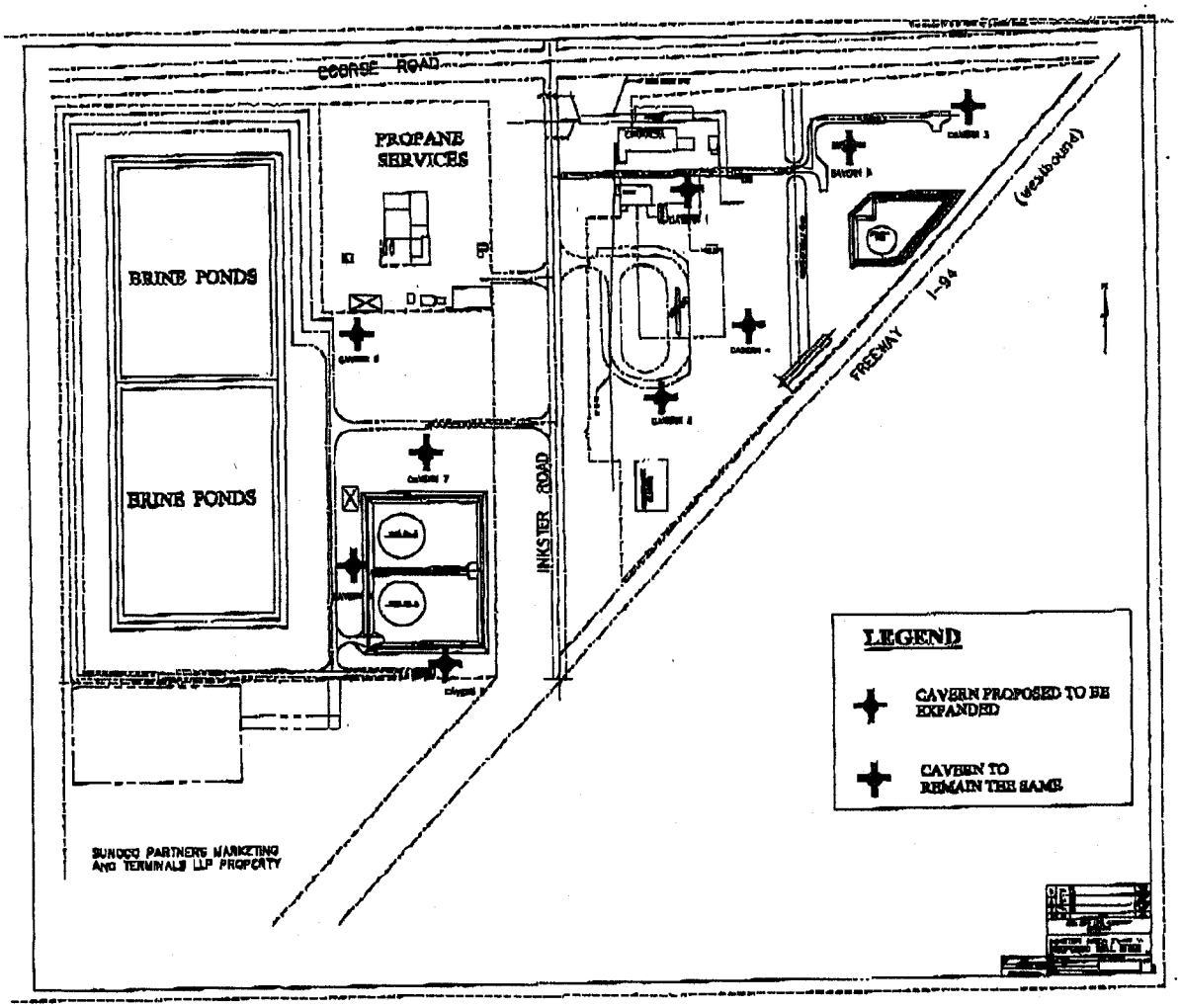
CORRECTIVE ACTION PLAN

No corrective action is required at this time.

Name and locations of wells authorized under this permit

Well Name	Surface Location	Formation
1.LPG Storage #4	SW/4 of NW/4 of NW/4 Section 7-T3S-R10E	"B" Unit of the Salina Group
2.LPG Storage #5	NW/4 of NW/4 of NW/4 Section 7-T3S-R10E	"B" Unit of the Salina Group
3.LPG Storage #7	SE/4 of NE/4 of NE/4 Section 12-T3S-R9E	"B" Unit of the Salina Group
4.LPG Storage #9	SE/4 of NE/4 of NE/4 Section 12-T3S-R9E	"B" Unit of the Salina Group

The property is divided by Inkster Road, which also corresponds to the city property line.



Sunoco Logistics

SUMMARY: INJECTION PROCEEDURE
Sunoco Partners Terminal and Marketing LLP.
7155 Inkster Road, Taylor, MI 48180.

PRESENTLY: Brine is used to displace the LPG's (propane, butane, iso-butane) stored in the existing 8 operational caverns (numbered #1 to #9 with #8 being out of service).

The existing facility has two 500,000BBL brine ponds located within the property. These act as brine supplies and reservoirs.

When LPG deliveries are made to the facility, they are pumped into the caverns via an existing network of pipelines. This product displaces the brine resident in the caverns, which is then piped into the brine ponds via a flow through 10,000BBL brine tank that acts like a transition vessel.

When LPG movement out of the caverns is desired, brine from the existing above ground ponds is pumped, via two existing pumps, P11 and P14, into the caverns. This displaces the LPG's from the caverns into the existing pipeline system, which are in turn piped to various locations throughout the pipeline system.

PROPOSED: Use fresh water to displace the LPG's in the caverns targeted for expansion ONLY.
All other caverns shall remain in the existing BRINE / LPG service under same conditions. One pond shall be designated to accommodate the caverns not slated for expansion.

When LPG movements are required out of the caverns, we shall inject fresh water into the existing caverns slated for expansion via the existing pumps, P11 and P14. This fresh water shall displace the LPG's, which will then be piped to their final destination.

The fresh water will reside in the cavern for a period of time (+/- 6 months) causing leeching of the caverns and thus expand them. The leeching will convert the fresh water into water containing leeched salt, becoming (leeched) brine from the cavern formation. Cavern characteristics including pressure shall be monitored at all times and fluid movement controlled to facilitate safe cavern operations. Brine concentrations and scheduled sonar tests will determine the actual cavern growth rate and volume.

Months later when LPG deliveries into the (same) caverns are desired, the leeched brine (originally fresh water) resident in the caverns shall be displaced by the LPG's from the pipeline. The leeched brine shall be pumped into the existing ponds via the flow through tank.

However, since the existing facility can only accommodate approximately 1,000,000 BBLS of brine storage, it will be necessary to dispose of this brine into the proposed "Brine Disposal Well" permitted under MI-DEQ and US-EPA.

Any additional brine not available from the ponds shall be obtained from a proposed brine production well.

Sunoco Partners Marketing & Terminals is always required to conduct cavern monitoring during fluid injection in accordance with 40 C.F.R. 146.33.

Sunoco Logistics

BRIEF BUSINESS DESCRIPTION

COMPANY: Sunoco Logistics Partners L.P. (NYSE: SXL)

ADDRESS: 10 Penn Center
1801 Market St.
Philadelphia, PA 19103-1699
Phone: 215-977-3000
Fax: 215-977-3409

Sunoco Logistics is a Master Limited Partnership formed by Sunoco, Inc., to acquire, own, and operate a geographically diverse group of crude oil and refined product pipelines, terminalling, and storage facilities. As a part of Sunoco, Inc., we have over 110 years experience in transportation, terminalling, and the storage services. Our business is made up of three segments: the Eastern Pipeline System, Terminal Facilities, and the Western Pipeline System.

Sunoco Logistics Partners owns and operates a large swath of its midstream and downstream assets. This includes nearly 5,000 miles of crude oil and refined product pipelines, located primarily in eastern half of the US, as well as more than 30 terminals and other storage assets related to Sunoco's refining and marketing operations in the Midwest, Gulf Coast, and Eastern seaboard states. Sunoco Logistics Partners also purchases domestic crude and resells it to Sunoco's refining and marketing division. Sunoco subsidiary Sunoco Partners controls about 75% of the company.

FACT SHEET:

I. EASTERN PIPELINE SYSTEM

Our Eastern Pipeline System primarily serves the Northeast and Midwest United States operations of Sunoco, Inc. (R&M) and comprises of, among other assets, approximately 1,700 miles of refined product pipelines. Our refined product pipelines transport refined products from Sunoco, Inc. (R&M)'s Philadelphia, PA, Marcus Hook, PA, Eagle Point, NJ, and Toledo, OH refineries, as well as from third parties, to markets in New York, New Jersey, Pennsylvania, Ohio, and Michigan.

The refined products transported in these pipelines include multiple grades of gasoline, low-octane gasoline for ethanol blending, distillates that include high- and low-sulfur diesel and jet fuel, LPGs (such as propane, butane, iso-butane, and a butane/butylene mixture), refining feed-stocks, and other hydrocarbons (such as toluene and xylene).

A 123-mile wholly owned crude oil pipeline, from Maryville, Michigan to refineries in the Toledo, Ohio area, including a Sunoco, Inc. owned refiner.

Sunoco Logistics

II. FACILITY SPECIFIC:

Sunoco Logistics L.P. has a facility addressed at 7155 Inkster Road, Taylor, MI 48180. This facility is physically located at the junction of Ecorse and Inkster Roads within the cities of Romulus and Taylor in Wayne County, southeast Michigan.

The facility is a pipeline terminal used for the storage and distribution of Liquified Petroleum Gasses (LPG's). Storage is in eight (8) working caverns, which have a total storage capacity of about ONE MILLION BARRELS of LPG's. The caverns range in size from 60,000 BBLS to 165,000 BBLS. The first cavern was leached in 1946 and the last capacity enlargement was in 1973. The bulk source of the LPG's stored at this facility originate from Sunoco's Toledo Refinery.

The site has nine (9) caverns solution mined from the SALINAS salt formation. Four of the operating caverns are in the "F" salt layer at 1,175 feet to 1,280 feet and four are in the "B" salt layer at 1,510 feet to 1,730 feet. Sunoco is looking at expanding the latter group. One cavern, # 8, has been plugged and abandoned.

SIC Code that best describes this activity is 2911 – PETROLEUM REFINING.

CLASS III
UNDERGROUND INJECTION CONTROL PERMIT
MINOR MODIFICATION FOR SIGNATURE

Permittee: SPMT UIC Permit No: MI-163-3G-0A002

City/State: Taylor, MI 48180 County: Wayne Well: Sunoco Inkster Facility

A. Changes made to the Permit

Page/Permit Condition	Modification
Page14/Special Condition Attachment D	Changed "If Required " to "Attached"
Page D3 of 5/Attachment D	Add a new paragraph "Sunoco Partners Marketing & Terminals LLP is always required to conduct cavern monitoring during fluid injection in accordance with 40 C.F.R. 146.33 (a)(1) to comply with the order of the Environmental Appeals Board".

B. Final Permit Concurrence

1. Permit Writer Mirza M. Baig Date: 06/14/ 06
2. Permit Team Leader [signature] Date: 6/15/06
3. EPA Assistant/Sec'y [signature] Date: 6/14/06
4. Direct Implementation Chief [signature] Date: 6/14/06
5. UIC Branch Chief/Sec'y N/A Date:
6. UIC Branch Chief [signature] Date: 6/14/06
7. Water Division Director [signature] Date: 6/14/06
8. UIC Permit Administrator [signature] Date: 6/15/06

THIS IS TO RESOLVE AN APPEALED PERMIT → ORC M. [illegible]

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Tracking Data:

Financial Assurance: State Bond Amount: 30,000

Injection Pressure: 382 Injection zone top 1150

Specific Gravity: 1.05

Fracture Gradient (if over 0.8):

Corrective Action Plan Due Date:

Release Financial Assurance (if applicable) ☐ Yes ☐ No (Financial Statement or State Bond)

Comments:

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Action Required

* Water division director: Please sign both original cover pages (two provided)

Sherry Card 6-19-06

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA)
UNDERGROUND INJECTION CONTROL CLASS III PERMIT

Permit Number: MI-163-3G-A002

Facility Name: Sunoco Inkster Facility

Pursuant to the provisions of the Safe Drinking Water Act, as amended (42 U.S.C. 300f et seq., commonly known as the SDWA) and implementing regulations promulgated by the United States Environmental Protection Agency (USEPA) at Parts 124, 144, 146 and 147 of Title 40 of the Code of Federal Regulations (40 CFR), Sunoco Partners Marketing & Terminals L.P. of Taylor, Michigan is authorized to operate four existing wells located in a permit area limited to the W/2 of NE/4 & SW/4 & NW/4 of the NW/4 of the NW/4 of Section 7, Township 3 South, Range 10 East and the NE/4 & SE/4 of the NE/4 of the NE/4 of Section 12, Township 3 South, Range 9 East in Wayne County, Michigan. Injection shall be limited to the F, E, D, C and B units of the Salina Group between 1150 and 1800 feet, upon the express condition that the permittee meet the restrictions set forth herein. The names and locations of wells authorized under this permit and a map of the permit area are provided in Part III(D) of this permit. Additional injection wells may be constructed and operated within the permit area provided that the permittee notifies the Director prior to construction and all permit requirements are met. Injection shall not commence into any newly drilled or converted well until the operator has received authorization in accordance with Part I(E)(10) of this permit.

The purpose of the injection is limited to solution mining of salt to enlarge existing salt caverns for hydrocarbon storage.

All references to 40 CFR are to all regulations that are in effect on the date that this permit is effective.

This permit shall become effective on JUL 6 2005 and shall remain in full force and effect during the operating life of the field, unless this permit is otherwise revoked, terminated, modified or reissued pursuant to 40 CFR 144.39, 144.40 and 144.41. This permit shall also remain in effect upon delegation of primary enforcement responsibility to the State of Michigan unless that State chooses to adopt this permit as a State permit. This permit will be reviewed at least every five (5) years from the effective date specified above.

Signed and dated: June 6, 2005

Charles J. Elly

for

Jo Lynn Traub
Director, Water Division