STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE No. 8298
Order No. R-7669

APPLICATION OF MESA PETROLEUM CO. FOR RETROACTIVE ALLOWABLE, SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8 a.m. on August 8, 1984, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 21st day of September, 1984, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Mesa Petroleum Co., seeks the assignment of a retroactive gas allowable to its State Com AK Well No. 35, and its State Com AK Well No. 35E located in Section 36, Township 32 North, Range 12 West, NMPM, Basin-Dakota Pool.

(3) The applicant seeks the assignment of said retroactive allowable from the date of first connection in October, 1980, until the date of the first regular allowable in April, 1982.

(4) Said State Com AK Well No. 35E was completed as an infill well on June 27, 1980, and first production occurred on October 28, 1980, on the existing State Com AK Well No. 35 gas proration unit (GPU).

(5) Said well (State Com AK Well No. 35E) is the second well on the GPU.

BEFORE THE
OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 10107
Submitted by EXHIBIT 6
Hearing Date 1-23-92

(6) Said well was allowed to produce without the required deliverability test until the same was received on August 2, 1982.

(7) Said well was included in the gas proration schedule by supplement beginning in April, 1982, approximately 18 months following the date of first production.

(8) Said well first appeared in the December, 1982, Gas Proration Schedule wherein the GPU was classified as non-marginal and production during said 18 month period was shown as overproduction of approximately 367,637 MCF.

(9) In said schedule said GPU was approximately 19 times overproduced.

(10) Based on deliverability alone, said GPU should have been classified as marginal.

(11) Under the gas proration rules a marginal GPU would have carried no overage.

(12) From October 1982, through June 1984, said GPU has been shut in for a total number of days approximately equivalent to 18 months.

(13) The market for natural gas and the resultant gas allowables have declined drastically since applicant's well received its first allowable in 1982.

(14) Notwithstanding the 18 months shut-in of said GPU described in Finding No. (12) above, because of the decline in allowables, said GPU is now overproduced a greater number of times than in December 1982.

(15) All required tests have now been filed for wells on said GPU and it has been shut-in for a period approximately equal to the period of production without regular allowable.

(16) There appears to be no further need or benefit in requiring said GPU to remain shut-in.

(17) Retroactive allowable for the period when the well was not in compliance with Division rules should not be made, however, the well's overproduced status should be adjusted to zero as of September 1, 1984.

(18) The entry of an order with the above status adjustment will not result in waste or violation of correlative rights.

IT IS THEREFORE ORDERED THAT:

(1) The application of Mesa Petroleum Co. for assignment of retroactive allowable to its State Com AK Well No. 35 and Well No. 35E located in Section 36, Township 32 North, Range 12 West, NMPM, Basin-Dakota Pool, San Juan County, New Mexico, is hereby denied.

(2) The overproduced status of the GPU upon which said wells are located is hereby adjusted to zero as of 7:00 o'clock a.m. on September 1, 1984.

(3) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

R. L. STAMETS,
Acting Director

S E A L

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

Please straighten it out with NMOCC and let me know what we'll answer. Thanks. Bill

1000 RIO BRAZOS R
AZTEC, NEW MEXICO
(505) 334-6178

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

September 24, 1979

Great Lakes Chemical Corporation
P. O. Box 2200
West Lafayette, Indiana
47906

Gentlemen:

Our records indicate that the below listed wells have been tested as scheduled for annual or biennial deliverability test and that the test is delinquent. Please file the test immediately. Failure to file deliverability tests within 60 days following completion of the test will subject the wells to the loss of one day's allowable for each day the test is late as per R-333-F-2.

→ Hammond #5 F-35-27N-8W Blanco Mesaverde

If you have any questions, please contact this office.

Yours truly,

Frank T. Chavez

Frank T. Chavez
Deputy Inspector

BEFORE THE
OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 10407 Exhibit 1
Submitted by: El Paso
Hearing Date: 1-23-92

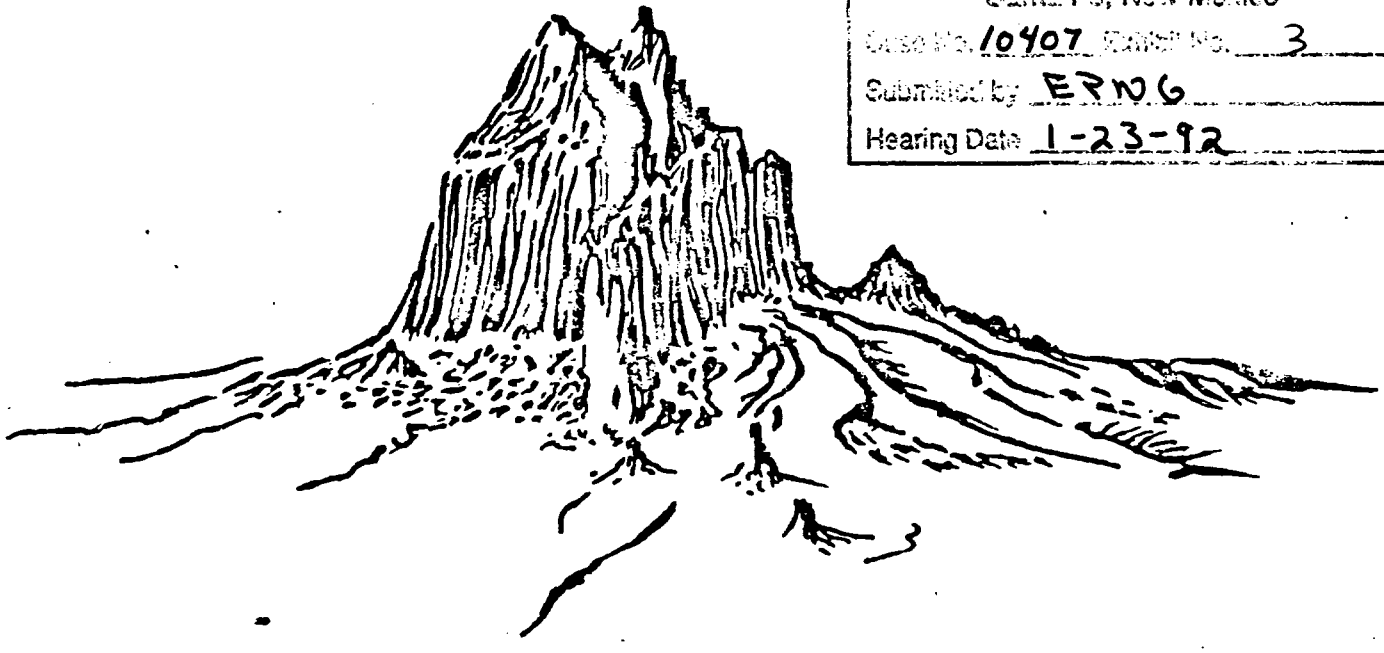
El Paso Exhibits 1 through 5

RULE 9(a) DELIVERABILITY TESTS: In pools where acreage and deliverability are proration factors, deliverability tests taken in accordance with Division rules shall be used in calculating allowables for the succeeding proration period. Deliverability shall be determined in accordance with the provisions of the appropriate test manual (See Manual of Gas Well Testing Rules and Procedures).

STATE
OF
NEW MEXICO

OIL CONSERVATION
DIVISION

BEFORE THE
OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 10407 Exhibit No. 3
Submitted by ERNG
Hearing Date 1-23-92



GAS WELL TESTING MANUAL
FOR
NORTHWEST NEW MEXICO

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

CASE NO: 8586
ORDER NO: R-333-I

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION ON ITS OWN MOTION FOR RESCISSION OF DIVISION ORDER No. R-333, AS AMENDED, AND FOR RECODIFICATION AND REISSUANCE OF GAS WELL TESTING PROCEDURES FOR NORTHWEST NEW MEXICO. APPLICANT FURTHER SEEKS AN EXTENSION OF THE 1986 TESTING PERIOD AND SUSPENSION OF THE 1987 TESTING PERIOD. MCKINLEY, RIO ARRIBA, SANDOVAL, AND SAN JUAN COUNTIES, NEW MEXICO.

BY THE DIVISION:

This cause came on for hearing at 8:00 a.m. on May 8, 1985, and at 8:15 a.m. on December 3, 1986, in Santa Fe, New Mexico, before Examiners Gilbert P. Quintana and Michael E. Stogner, respectively.

NOW, on this 2nd day of October, 1987, the Division Director, having considered the testimony, the record, and the recommendations of the Examiners, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant in the instant case seeks to rescind Division Order No. R-333, as amended, and to recodify and amend the Special Rules and Regulations for the testing of gas wells in Northwest New Mexico contained therein.

(3) Special rules and regulations for the testing of gas wells in McKinley, Rio Arriba, Sandoval, and San Juan Counties, New Mexico, (Northwest New Mexico) have been adopted and amended by the Division and are embodied in Division Order No. R-333, as amended.

(4) These existing rules and regulations relating to gas well testing procedures in Northwest New Mexico have been adopted over many years and are collected in numerous orders, therefore, making reference to them somewhat difficult.

(5) In addition some of the gas well testing procedures are out-dated and in need of revision.

(6) Because of the need to review these rules relating to gas well testing in Northwest New Mexico, the Division Director at that time appointed a committee to study the existing rules and to recommend changes.

(7) Harold L. Kendrick, Chairman of the Deliverability Test Committee, appeared on its behalf at the May 8, 1985 (at which time it was taken under advisement, however no order was issued) and December 3, 1987 examiner hearings and made the following recommendations regarding gas well testing procedures in Northwest New Mexico:

(a) to recodify the rules and issuing them as the "Gas Well Testing Manual for Northwest New Mexico";

(b) to require deliverability testing in prorated gas pools on a biennial (every two years) basis;

(c) to require biennial shut-in pressures in non-prorated gas pools with no deliverability testing;

(d) to make the deliverability test year be the same as the calendar year;

(e) to make exemption from deliverability testing in the Blanco-Mesaverde and Basin-Dakota Pools based upon the combined producibility of all wells on a gas proration unit;

(f) to permit wells shut-in for overproduction to be produced for deliverability test purposes after the operator notifies the Division Aztec District office;

(g) to relax restriction on flow interruptions during the conditioning period slightly;

(h) to permit the 7-day shut in pressure to be measured at a time during the current testing season other than immediately following the test flow period;

(i) to set deliverability pressure (Pd) assigned as a percentage of the 7-day shut-in pressure in each pool to more nearly approximate the pool average operating conditions;

(j) the 7-day shut-in pressure for wells in non-prorated gas pools should be filed with the Division and reported on Form C-125 or any other form designated by the Division; and

(k) to include in the manual all required tables.

(8) All of the above proposals are embodied in Exhibit "A" attached hereto and made a part thereof.

(9) A manual for well testing as set out in said supplemental exhibit should be adopted.

(10) The existing Division Order No. R-333, as amended, should be rescinded, in its entirety, and a new order designated R-333-I should be promulgated.

(11) It is further sought in this Case to extend the deadline for completing and filing 1986 deliverability tests to March 31, 1987, and for a one year suspension of biennial deliverability testing whereby the deliverability test cycle will begin again in 1988 with those pools which would have been tested in 1987.

(12) No testimony was received in opposition to this request.

(13) Approval of this application is in the best interest of conservation and will prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED THAT:

(1) Effective September 1, 1987, the Special Rules and Regulations governing gas well testing in Northwest New Mexico, which includes McKinley, Rio Arriba, Sandoval and San Juan Counties, New Mexico, as set forth in Exhibit "A" attached hereto and made a part hereof, are hereby promulgated and adopted as an exception to Rules 401 and 402 of the general statewide rules and regulations of this Division relating to gas well testing procedures, superseding the rules and regulations contained in their entirety in Division Order No. R-333, as amended.

(2) The deadline for completing and filing 1986 deliverability tests is hereby extended to March 31, 1987.

(3) The required biennial deliverability testing of wells is hereby suspended for a one year period whereby the deliverability test cycle will begin again in 1988 with those pools which would have been tested in 1987.

(4) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director

S E A L

RULES OF PROCEDURE FOR NORTHWEST NEW MEXICO

CHAPTER I TYPE OF TESTS REQUIRED FOR WELLS COMPLETED IN PRORATED GAS POOLS

SECTION 1: Initial Deliverability and Shut-In Pressure Tests for Newly Completed Well

A. Immediately upon completion of each gas well in northwest New Mexico, a shut-in pressure test of at least seven days duration shall be made. This initial shut-in pressure shall be filed with the Division's Aztec Office on either Form C-122 or C-104.

B. Within 90 days after a well first delivers gas to a gas transportation facility, the well shall have been tested in accordance with Section 1 of Chapter II of these rules, "Initial Deliverability and Shut-In Pressure Test Procedures", and the results of the test filed in triplicate with the Division's Aztec office and one copy filed with the gas transportation facility to which the well is connected. This test is to be filed on Form C-122-A. Failure to file said test within the above-prescribed 90-day period will subject the well to the loss of one day's allowable for each day the test is late.

1. If the newly first delivered well is an infill well on a proration unit, the old well on the unit is not required to be tested provided it has a valid test on file for the current proration year. Testing of the old well follows the regularly assigned test year for the pool in which the wells are located. The new well is required to be tested annually until at least three annual tests are on file and then the well is to be tested biennially with other wells in that pool.

2. If the newly first delivered well is an infill well on a proration unit and the old well on the unit is "exempt", the old well is to be tested along with the new well for the Initial and Annual Deliverability and Shut-In Pressure Test. The old well will lose its "exempt" classification and must be tested biennially along with other wells in that pool. The new infill well is required to be tested annually until at least three annual tests are on file and then the well is to be tested biennially with other wells in that pool.

C. The requirements for Initial Tests and Annual or Biennial Deliverability and Shut-In Pressure Tests and the notification requirements and scheduling of such tests which apply to newly completed wells shall also apply to recompleted wells.

D. Any tests taken for informational purposes prior to pipeline connection shall not be recognized as official tests for the assignment of allowables.

SECTION 2. Annual and Biennial Deliverability and Shut-In Pressure Tests

A. Annual or Biennial Deliverability and Shut-In Pressure Tests shall be made on all gas wells during the period from January 1 through December 31 of that year except as follows:

1. A newly completed well or a recompleted well shall be tested on an annual basis until a minimum of three annual tests have been taken, after which the well shall be tested biennially as is required for other wells in the pool in which the well is located.

2. Wells classified as "exempt" shall not be subject to the requirements of annual or biennial deliverability tests.

   Classification of wells into or out of the "exempt" status shall be done once each year immediately following the reporting of June production and shall be effective for the succeeding annual test period.

   Gas wells completed in the Pictured Cliffs or any shallower formation shall be classified "exempt" if at least three months of production history is available and the well failed to produce, and is incapable of producing, an average of 250 MCF or more per month during the months produced within the preceding 12-month period, and the well is classified as marginal in the August Gas Proration Schedule.

   Gas wells completed in any formation deeper than the Pictured Cliffs formation shall be classified "exempt" if at least three months of production history is available and the well failed to produce, and is incapable of producing, an average of 2000 MCF or more per month during the months produced within the preceding 12-month period, and the well is classified as marginal in the August Gas Proration Schedule.

Gas wells on multiple well Gas Proration Units will not be classified "exempt" unless the Gas Proration Unit is classified as marginal. Any or all wells on a marginal multiple well Gas Proration Unit may be classified as "exempt" provided each Gas Proration Unit so classified meets the qualification for "exempt" status. Gas Proration Units for wells producing from formations deeper than the Pictured Cliffs formation shall be classified "exempt" if at least three months of production history is available and the Gas Proration Unit failed to produce, and is incapable of producing, an average of 2000 MCF or more per month during the months produced within the preceding 12-month period, and the Gas Proration Unit is classified as marginal in the August Gas Proration Schedule. Gas Proration Units are to be classified as "exempt" because of their low producing ability.

The District Supervisor of the Division's Aztec Office may classify a well or Gas Proration Unit as "exempt" at any time if the operator presents sufficient evidence to the District Supervisor indicating that the well or Gas Proration Unit is incapable of producing gas at a higher rate than that rate required for "exempt" classification for wells or Gas Proration Units in that pool.

Once a well or Gas Proration Unit has been declared "exempt" for the following test year, it shall remain classified "exempt" for that test year.

3. If a test is filed on any well on a gas proration unit, the test requirement for the gas proration unit has been met. The deliverability of the unit is taken only as the resulting sum of all wells tested.

4. A shut-in pressure must be filed on Form C-122-A even if no gas is measured during the production phase of the test. The filing of shut-in pressures for "exempt" wells is not required.

B. All Annual and Biennial Deliverability and Shut-In Pressure Tests required by these rules must be filed with the Division's Aztec office and with the appropriate gas transportation facility within 90 days following the completion of each test. Provided however, that any test completed between October 31 of the test year and January 31 of the following year are due no later than January 31. No extension of time for filing tests beyond January 31 will be granted except after notice and hearing.

Failure to file any test within the above-prescribed times will subject the well to the loss of one day's allowable for each day the test is late. A well classified as marginal shall be shut-in one day for each day the test is late.

SECTION 3: Scheduling of Tests

A. Notification of Pools to be Tested

By September 1 of each year, the District Supervisor of the Aztec District Office of the Division shall by memorandum notify each gas transportation facility and each operator of the pools which are to be scheduled for biennial testing during the following testing period from January 1 through the last day of December of that test year. The District Supervisor will also provide a list of "exempt" wells and a list of wells that do not have a minimum of three Annual Deliverability and Shut-In Pressure Tests on file.

Any well scheduled for testing during its test year may have the conditioning period, test flow period, and some of the seven day shut-in period conducted in December of the previous year provided that if the 7 day shut-in period immediately follows the test flow period the 7 day shut-in pressure would be measured in January of the test year. The earliest date that a well could be scheduled for Annual or Biennial Deliverability and Shut-In Pressure Test would be such that the Test Flow Period would end on December 25 of the previous year.

Downhole commingled wells are to be scheduled for tests on dates for pool of the lowermost prorated completion of the well.

B. Annual and Biennial Deliverability Tests

By November 1 of each year, each gas transportation facility shall, in cooperation with the operators involved, prepare and submit a schedule of the wells to which it is connected which are to begin testing in December and January. Said schedule shall be entitled, "Annual and Biennial Deliverability and Shut-In Pressure Test Schedule", and one copy shall be submitted to the Division's Aztec office and to each operator concerned. The schedule shall indicate the date of tests, pool, operator, lease, well number, and location of each well.

At least 30 days prior to the beginning of each succeeding 2-month testing interval, a similar schedule shall be prepared and filed in accordance with the above.

The gas transportation facility and the Aztec District Office of the Division shall be notified immediately by any operator unable to conduct any test as scheduled.

In the event a well is not tested in accordance with the existing test schedule, the well shall be re-scheduled by the gas transportation facility, and the Division and the operator of the well so notified in writing. Every effort should be made to notify the Division of the new schedule prior to the conclusion of the newly assigned 14-day conditioning period.

Notice to the Division of Shut-In Pressure Tests which are scheduled at a time other than immediately following the flow test must be received prior to the time that the well is shut-in.

It shall be the responsibility of each operator to determine that all of its wells are properly scheduled for testing by the gas transportation facility to which they are connected, in order that all annual and biennial tests may be completed during the testing season.

In the event a well is shut-in by the state for over production, the operator may produce the well for a period of time to secure a test after notification to the Division. All gas produced during this testing period will be used in determining the over/under produced status of the well.

C. Deliverability Re-Tests

An operator may, in cooperation with the gas transportation facility, schedule a well for a deliverability re-test upon notification to the Division's Aztec office at least ten days before the test is to be commenced. Such re-test shall be for good and substantial reason and shall be subject to the approval of the Division. Re-tests shall in all ways be conducted in conformance with the Annual and Biennial Deliverability Test Procedures of these rules. The Division, at its discretion, may require the re-testing of any well by notification to the operator to schedule such re-test. These tests as filed on Form C-122-A should be identified as "RETEST" in the remarks column.

SECTION 4: Witnessing of Tests

Any Initial Annual or Biennial Deliverability and Shut-In Pressure Test may be witnessed by any or all of the following: an agent of the Division, an offset operator, a representative of the gas transportation facility connected to the well under test, or a representative of the gas transportation facility taking gas from an offset operator.

CHAPTER II P TESTING

SECTION 1: I erability and Shut-In Pressure Test Procedure

A. Within 90 a newly completed well is first delivered to a gas trans facility, the operator shall complete a deliverabi ut-in pressure test of the well in conformance with the " Biennial Deliverability and Shut-In Pressure Test Proce scribed in Section 2 of this chapter. Results of the tes iled as required by Section 1 of Chapter I of these rule

B. In the eve practical to test a newly completed well in conformanc graph A above, the operator may conduct the deliverabi ut-in pressure test in the following manner (provided, at any test so conducted will not be accepted as the fi deliverability and shut-in pressure test as described A-1 of Section 2, Chapter I):

1. A 7-da roduction chart may be used as the basis for de e well's deliverability, providing the chart preceded by at least 14 days continuous produc well shall produce through either the casing ut not both, into a pipeline during these period ction valve and the choke settings shall not be ng either the conditioning or flow period with t n of the first ten (10) days of the conditi iod when maximum production would over-r meter chart or location production equipme

2. A shut- of at least seven days duration shall be taken. e the shut-in test required in Paragraph A, Secti ter I of these rules.

3. The ave tatic meter pressure shall be determined in acco Section 2 of Chapter II of these rules. This pr be used as P_t in calculating P_w for the Deliver ulation.

4. The dai rate of flow shall be determined in accorda tion 2 of Chapter II.

5. The st ad working pressure (P_w) shall be determi ence with Section 2 of Chapter II.

6. The deliverability of the well shall be determined by using the data determined in Paragraphs 1 through 5 above in the deliverability formula in accordance with Section 2 of Chapter II.

7. The data and calculations for Paragraphs 1 through 6 above shall be reported as required in Section 1 of Chapter I of these rules, upon the blue-colored Form C-122-A or on white Form C-122-A and identified as "INITIAL TEST ONLY" in remarks.

SECTION 2: Annual and Biennial Deliverability and Shut-In Pressure Test Procedure

This test shall begin by producing a well in the normal operating manner into the pipeline through either the casing or tubing, but not both, for a period of fourteen consecutive days. This shall be known as the conditioning period. The production valve and choke settings shall not be changed during either the conditioning or flow periods except during the first ten (10) days of the conditioning period when maximum production would over-range the meter chart or location production equipment. The first ten (10) days of said conditioning period shall not have more than forty eight (48) hours of cumulative interruptions of flow. The eleventh to fourteenth days, inclusive, of said conditioning period shall have no interruptions of flow whatsoever. Any interruption of flow that occurs as normal operation of the well as stop-cock flow, intermittent flow, or well blow down will not be counted as shut-in time in either the conditioning or flow period.

The daily flowing rate shall be determined from an average of seven or eight consecutive producing days, following a minimum conditioning period of 14 consecutive days of production. This shall be known as the flow period.

Instantaneous pressures shall be measured by deadweight gauge or other method approved by the Division during the 7-day or 8-day flow period at the casinghead, tubinghead, and orifice meter, and shall be recorded along with instantaneous meter-chart static pressure reading.

If a well is producing through a compressor that is located between the wellhead and the meter run, the meter run pressure and the wellhead casing pressure and the wellhead tubing pressure are to be reported on Form C-122-A. (Neither the suction pressure nor the discharge pressure of the compressor is considered wellhead pressure.) A note shall be entered in the remarks portion on Form C-122-A stating "This well produces through a compressor".

When it is necessary to restrict the flow of gas between the wellhead and orifice meter, the ratio of the downstream pressure, psia, to the upstream pressure, psia shall be determined. When this ratio is 0.57, or less, critical flow conditions shall be considered to exist across the restriction.

When more than one restriction between the wellhead and orifice meter causes the pressures to reflect critical flow between the wellhead and orifice meter, the pressures across each of these restrictions shall be measured to determine whether critical flow exists at any restriction. When critical flow does not exist at any restriction, the pressures taken to disprove critical flow shall be reported to the Division on Form C-122-A in item (n) of the form. When critical flow conditions exist, the instantaneous flowing pressures required hereinabove shall be measured during the last 48 hours of the 7-day or 8-day flow period.

When critical flow exists between the wellhead and orifice meter, the measured wellhead flowing pressure of the string through which the well flowed during test shall be used as P_t when calculating the static wellhead working pressure (P_w) using the method established below.

When critical flow does not exist at any restriction, P_t shall be the corrected average static pressure from the meter chart plus friction loss from the wellhead to the orifice meter.

The static wellhead working pressure (P_w) of any well under test shall be the calculated 7-day or 8-day average static tubing pressure if the well is flowing through the casing; it shall be the calculated 7-day or 8-day average static casing pressure if the well is flowing through the tubing. The static wellhead working pressure (P_w) shall be calculated by applying the tables and procedures set out in this manual.

To obtain the shut-in pressure of a well under test, the well shall be shut in some time during the current testing season for a period of seven to fourteen consecutive days, which have been preceded by a minimum of seven days of uninterrupted production. Such shut-in pressure shall be measured with a deadweight gauge or other method approved by the Division on the seventh to fourteenth day of shut-in of the well. The 7-day shut-in pressure shall be measured on both the tubing and the casing when communication exists between the two strings. The higher of such pressures shall be used as P_c in the deliverability calculation. When any such shut-in pressure is determined by the Division to be abnormally low or the well can not be shut-in due to "HARDSHIP" classification, the shut-in pressure to be used as P_c shall be determined by one of the following methods:

1. A Division-designated value.

2. An average shut-in pressure of all offset wells completed in the same zone. Offset wells include the four side and four corner wells, if available.

3. A calculated surface pressure based on a calculated bottom-hole pressure. Such calculation shall be made in accordance with the examples in this manual.

All Wellhead pressures as well as the flowing meter pressure tests which are to be taken during the 7-day or 8-day deliverability test period as required hereinabove shall be taken with a deadweight gauge or other method approved by the Division. The pressure readings and the date and time according to the chart shall be recorded and maintained in the operator's records with the test information.

Orifice meter charts shall be changed and so arranged as to reflect upon a single chart the flow data for the gas from each well for the full 7-day or 8-day deliverability test period; however, no tests shall be voided if satisfactory explanation is made as to the necessity for using test volumes through two chart periods. Corrections shall be made for pressure base, measured flowing temperature, specific gravity, and supercompressibility; provided however, if the specific gravity of the gas from any well under test is not available, an estimated specific gravity may be assumed therefor, based upon that of gas from near-by wells, the specific gravity of which has been actually determined by measurement.

The average flowing meter pressure for the 7-day or 8-day flow period and the corrected integrated volume shall be determined by the purchasing company that integrates the flow charts and furnished to the operator or testing agency.

The 7-day or 8-day flow period volume shall be calculated from the integrated readings as determined from the flow period orifice meter chart. The volume so calculated shall be divided by the number of testing days on the chart to determine the average daily rate of flow during said flow period. The flow period shall have a minimum of seven and a maximum of eight legibly recorded flowing days to be acceptable for test purposes. The volume used in this calculation shall be corrected to New Mexico Oil Conservation Division standard conditions of 15.025 psia pressure base, 60°F. temperature base and 0.60 specific gravity base.

The daily volume of flow as determined from the flow period chart readings shall be calculated by applying the Basic Orifice Meter Formula or other acceptable industry standard practices.

$$Q = C' (h_w P_f)^{.5}$$

Where:

Q = Metered volume of flow Mcf/d @ 15.025 psia, 60° F., and 0.60 specific gravity.

C' = The 24-hour basic orifice meter flow factor corrected for flowing temperature, gravity, and supercompressibility.

h_w = Daily average differential meter pressure from flow period chart.

P_f = Daily average flowing meter pressure from flow period chart.

The basic orifice meter flow factors, flowing temperature factor, and specific gravity factor shall be determined from the tables in this manual.

The daily flow period average corrected flowing meter pressure, psig, shall be used to determine the supercompressibility factor. Supercompressibility Tables may be obtained from the New Mexico Oil Conservation Division.

When supercompressibility correction is made for a gas containing either nitrogen or carbon dioxide in excess of two percent, the supercompressibility factors of such gas shall be determined by the use of Table V of the C.N.G.A. Bulletin TS-402 for pressures 100-500 psig, or Table II, TS-461 for pressures in excess of 500 psig.

The use of tables for calculating rates of flow from integrator readings which do not specifically conform to the New Mexico Oil Conservation Division "Back Pressure Test Manual", or this manual, may be approved for determining the daily flow period rates of flow upon a showing that such tables are appropriate and necessary.

The daily average integrated rate of flow for the 7-day or 8-day flow period shall be corrected for meter error by multiplication by a correction factor. Said correction factor shall be determined by dividing the square root of the deadweight flowing meter pressure, psia, by the square root of the chart flowing meter pressure, psia.

Deliverability pressure, as used herein, is a defined pressure applied to each well and used in the process of comparing the abilities of wells in a pool to produce at static wellhead working pressures equal to a percentage of the 7-day shut-in pressure of the respective individual wells. Such percentage shall be determined and announced periodically by the Division based on the relationship of the average static wellhead working pressures (P_w) divided by the average 7-day shut-in pressure (P_c) of the pool.

The deliverability of gas at the "deliverability pressure" of any well under test shall be calculated from the test data derived from the tests hereinabove required by use of the following deliverability formula:

$$D = Q \left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^n$$

Where:

D = Deliverability Mcf/d at the deliverability pressure, (P_d), (at Standard Conditions of 15.025 psia, 60°F and 0.60 sp. gr.).

Q = Daily flow rate in Mcf/d, at wellhead pressure (P_w).

P_c = 7-day shut-in Wellhead pressure, psia, determined in accordance with Section 2 of Chapter II.

P_d = Deliverability pressure, psia, as defined above.

P_w = Average static wellhead working pressure, as determined from 7-day or 8-day flow period, psia, and calculated from tables in this manual entitled "Pressure Loss Due to Friction" Tables for northwest New Mexico.

n = Average pool slope of back pressure curves as follows:

For Pictured Cliffs and shallower formations 0.85

For formations deeper than Pictured Cliffs 0.75

(Note: Special rules for any specific pool or formation may supersede the above values. Check special rules if in doubt.)

The value of the multiplier in the above formula (ratio factor after the application of the pool slope) by which Q is multiplied shall not exceed a limiting value to be determined and announced periodically by the Division. Such determination shall be made after a study of the test data of the pool obtained during the previous testing season.

Downhole commingled wells are to be tested in year for pool of lowermost prorated completion of well and shall use pool slope (n), and deliverability pressure of lowermost pool. The total flow rate from the downhole commingled well will be used to calculate a value of deliverability. For each prorated gas zone of a downhole commingled well, a Form C-122-A is required to be filed and in the Summary portion of that form, all zones will indicate the same data for line h, P_c, Q, P_w, and P_d. The value shown for Deliverability (D) will be that percentage of the total deliverability of the well that is applicable to this zone. A note shall be placed in the remarks column that indicates the percentage of deliverability to be allocated to this zone of the well.

Any test prescribed herein will be considered acceptable if the average flow rate for the final 7-day or 8-day deliverability test is not more than ten percent in excess of any consecutive 7-day or 8-day average of the preceding two weeks. A deliverability test not meeting this requirement may be declared invalid, requiring the well to be re-tested.

All charts relative to initial, annual, or biennial deliverability tests or copies thereof shall be made available to the Division upon its request.

All testing agencies, whether individuals, companies, pipeline companies, or operators, shall maintain a log of all tests accomplished by them, including all field test data. The operator shall maintain the above data for a period of not less than two (2) years plus the current test year.

All forms heretofore mentioned are hereby adopted for use in the northwest New Mexico Area in open form subject to such modification as experience may indicate desirable or necessary.

Initial and Annual or Biennial Deliverability and Shut-In Pressure Tests for gas wells in all formations shall be conducted and reported in accordance with these rules and procedures. Provided however, these rules shall be subject to any specific modification or change contained in Special Pool Rules adopted for any pool after notice and hearing.

CHAPTER III INFORMATIONAL TESTS

A. A one-point back pressure test may be taken on newly completed wells before their connection or reconnection to a gas transportation facility. This test shall not be a required official test but may be taken for informational purposes at the option of the operator. When taken, this test must be taken and reported as prescribed below:

ONE-POINT BACK PRESSURE POTENTIAL TEST PROCEDURE

1. This test shall be accomplished after a minimum shut-in of seven days. The shut-in pressure shall be measured with a deadweight gauge or other method approved by the Division.

2. The flow rate shall be that rate in Mcf/d measured at the end of a three hour test flow period. The flow from the well shall be for three hours through a positive choke, which has a 3/4-inch orifice.

3. A 2-inch nipple which provides a mechanical means of accurately measuring the pressure and temperature of the flowing gas shall be installed immediately upstream from the positive choke.

4. The absolute open flow shall be calculated using the conventional back pressure formula as shown in this manual or the New Mexico Oil Conservation Division "Back Pressure Test Manual."

5. The observed data and flow calculations shall be reported in duplicate on Form C-122, "Multi-Point Back Pressure Test for Gas Wells."

6. Non-critical flow shall be considered to exist when the choke pressure is 13 psig or less. When this condition exists the flow rate shall be measured with a pitot tube and nipple as specified in this manual or in the Division's Manual of "Tables and Procedure for Pitot Tests." The pitot test nipple shall be installed immediately downstream from the 3/4-inch positive choke.

7. Any well completed with 2-inch nominal size tubing (1.995-inch ID) or larger shall be tested through the tubing.

B. Other tests for informational purposes may be conducted prior to obtaining a pipeline connection for a newly completed well upon receiving specific approval therefor from the Division's Aztec

office. Approval of these tests shall be based primarily upon the volume of gas to be vented.

CHAPTER IV TYPE OF TESTS REQUIRED FOR WELLS COMPLETED IN NON-PRORATED POOLS

SECTION 1: Initial Shut-In Pressure Tests for Newly Completed Wells

A. (Same as Chapter I, Section 1, A)

SECTION 2: Biennial Shut-In Pressure Tests

A. Non-prorated wells will be tested biennially as required by the District Office except as follows:

1. Wells which meet the "exempt" qualification as shown in Chapter I, Section 2, paragraph A-2 of these rules shall also be exempt from shut-in test requirements.

2. Wells classified as "hardship" wells during the test year shall also be exempt from shut-in test requirements.

B. All shut-in tests required by these rules must be filed with the Division's Aztec office by January 31 of the following year. Failure to file the test will subject the well to being shut-in one day for each day the test is late.

SECTION 3: Scheduling Tests

A. By September 1 of each year, the District Supervisor of the Aztec District Office of the Division shall by memorandum notify each gas transportation facility and each operator of the pools which are to be scheduled for biennial shut-in pressure testing during the following testing period from January 1 through the last day of December of that test year. The District Supervisor will also provide a list of "exempt" wells.

Any well scheduled for testing during its test year may have the test flow period, and some of the seven day shut-in period conducted in December of the previous year. The earliest date that a well could be scheduled for Biennial Shut-In Pressure Test would be such that the Test Flow Period would end on December 25 of the previous year.

Downhole commingled wells are to be scheduled for tests on dates for pool of lowermost completion of well.

SECTION 4: Test Procedure

A. To obtain the shut-in pressure of a well under test, the well shall be shut-in some time during the current testing season for a period of seven to fourteen consecutive days, which have been preceded by a minimum of seven days of uninterrupted production. Such shut-in pressure shall be measured by deadweight gauge or other method approved by the Division on the seventh to fourteenth day of shut-in of the well. The shut-in pressure shall be measured on both the tubing and the casing when communication exists between the two strings. The higher of such pressures shall be reported as the shut-in pressure of the well.

SECTION 5: Filing of Shut-In Pressure Data

The result of this test shall be reported in the last column of Division Form C-125 showing the pressure in psia and shall be filed in triplicate with the Aztec District Office of the Division.

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NEW MEXICO OIL CONSERVATION COMMISSION
WELL DELIVERABILITY TEST REPORT FOR 19 90

Form C122-A
Revised 1-1-66

POOL NAME	POOL SLOPE	FORMATION	COUNTY
BLANCO	n= .75	MV	SJ

COMPANY			WELL NAME AND NUMBER		
GREAT LAKES CHEMICAL CORP			GRAHAM #1		
UNIT LETTER	SECTION	TOWNSHIP	RANGE	PURCHASING PIPELINE	
A	4	27N	8W	EPNG	
CASING O.D. - INCHES	CASING I.D. - INCHES	SET AT DEPTH - FEET	TUBING O.D. - INCHES	TUBING I.D. - INCHES	TOP - TUBING PERF. - FEET
5.500		4435	1.250		4532
GAS PAY ZONE		WELL PRODUCING THRU		GAS GRAVITY	GRAVITY X LENGTH
FROM 4414 TO 4532.		CASING	TUBING X	.731	3313
DATE OF FLOW TEST			DATE SHUT-IN PRESSURE MEASURED		
FROM 1/26/91 TO 2/1/91			2/8/91		

PRESSURE DATA - ALL PRESSURES IN PSIA

(a) Flowing Casing Pressure (DWt)	(b) Flowing Tubing Pressure (DWt)	(c) Flowing Meter Pressure (DWt)	(d) Flow Chart Static Reading	(e) Meter Error (Item c - Item d)	(f) Friction Loss (a - c) or (b - c)	(g) Average Meter Pressure (Integr.)
423	388	384	378	6	4	385
(h) Corrected Meter Pressure (g + e)	**(i) Avg. Wellhead Press. P_t = (h + f)**	**(j) Shut-in Casing Pressure (DWt)**	**(k) Shut-in Tubing Pressure (DWt)**	**(l) P_c = higher value of (j) or (k)**	**(m) Del. Pressure P_d = 70 %P_c**	**(n) Separator or Dehydrator Pr. (DWt) for critical flow only**
391	345	548	542	548	384	—

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D	Quotient of Item c / Item d	$\sqrt{\text{Item c / Item d}}$	Corrected Volume
242	1.01467	1.00731	Q = 243 MCF/D

WORKING PRESSURE CALCULATION

$(1-e^{-s})$	$(P_c Q_m)^2$ (1000)	$R^2 = (1-e^{-s})(P_c Q_m)^2$(1000)	P_t^2	$P_w^2 = P_t^2 + R^2$	$P_w = \sqrt{P_w^2}$
.214	35.434	7.693	155.670	163.362	404

DELIVERABILITY CALCULATION

$$D = Q\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2}\right]^n = 243\left[\left(\frac{153.155}{136.942}\right)^n = (1.11840)^n = 1.08754\right] = 265 \text{ MCF/D}$$

REMARKS:

RECEIVED
MAR 05 1991
OIL CON. DIV.
DIST. 3

EX 41

OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 10407 EXHIBIT NO. 6
Hearing Date 1-23-92

SUMMARY

Item b	391	Psia
P_c	548	Psia
Q	243	MCF/D
P_w	404	Psia
P_d	384	Psia
D	265	MCF/D

Company GREAT LAKES CHEMICAL CORP
By Jim Smith
Title Agent
Witnessed By
Company

89

NEW MEXICO OIL CONSERVATION COMMISSION
WELL DELIVERABILITY TEST REPORT FOR 19 90

Form C122-A
Revised 1-1-65

POOL NAME	POOL SLOPE	FORMATION	COUNTY
BLANCO	n= .750	MV	S J

COMPANY			WELL NAME AND NUMBER		
GREAT LAKES CHEMICAL CORP			GRAHAM #3		
UNIT LETTER	SECTION	TOWNSHIP	RANGE	PURCHASING PIPELINE	
J	3	27N	8W	EPNG	
CASING O.D. - INCHES	CASING I.D. - INCHES	SET AT DEPTH - FEET	TUBING O.D. - INCHES	TUBING I.D. - INCHES	TOP - TUBING PERF. - FEET
5.500		4586	1.250		4515
GAS PAY ZONE		WELL PRODUCING THRU		GAS GRAVITY	GRAVITY X LENGTH
FROM 4474 TO 4574		CASING	TUBING X	.739	3331
DATE OF FLOW TEST			DATE SHUT-IN PRESSURE MEASURED		
FROM 1/24/91	TO 2/1/91		2/8/91		

PRESSURE DATA - ALL PRESSURES IN PSIA

(a) Flowing Casing Pressure (DWt)	(b) Flowing Tubing Pressure (DWt)	(c) Flowing Meter Pressure (DWt)	(d) Flow Chart Static Reading	(e) Meter Error (Item c - Item d)	(f) Friction Loss (a - c) or (b - c)	(g) Average Meter Pressure (Integr.)
—	284	177	178	-1	107	178
(h) Corrected Meter Pressure (g + e)	**(i) Avg. Wellhead Press. P_t = (b + f)**	**(j) Shut-in Casing Pressure (DWt)**	**(k) Shut-in Tubing Pressure (DWt)**	**(l) P_c = higher value of (j) or (k)**	**(m) Del. Pressure P_d = 70 %P_c**	**(n) Separator or Dehydrator Pr. (DWt) for critical flow only**
177	284	—	452	452	316	-

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D	Quotient of $\frac{\text{Item c}}{\text{Item d}}$	$\sqrt{\frac{\text{Item c}}{\text{Item d}}}$	Corrected Volume
97	.99165	.99582	Q = 97 MCF/D

WORKING PRESSURE CALCULATION

$(1-e^{-s})$	$(P_c Q_m)^2$ (1000)	$R^2 = \frac{}{(1-e^{-s})(P_c Q_m)^2(1000)}$	P_t^2	$P_w^2 = P_t^2 + R^2$	$P_w = \sqrt{P_w^2}$
.215	5.689	1.226	80.378	81.604	286

DELIVERABILITY CALCULATION

$$D = Q\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2}\right]^n = 97\left[\left(\frac{104.195}{122.700}\right)^n = (.84919)^n = .88461\right] = 86 \text{ MCF/D}$$

REMARKS:

Ex. 42

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MAR 05 1991
OIL CON. DIV.
DIST. 3

SUMMARY

Item b	177	Company	GREAT LAKES CHEMICAL CORP
P_c	452 Psia	By	Jim Smith
Q	97 MCF/D	Title	Agent
P_w	286 Psia	Witnessed By	
P_d	316 Psia	Company	
D	86 MCF/D		

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NEW MEXICO OIL CONSERVATION COMMISSION
WELL DELIVERABILITY TEST REPORT FOR 19 90

Form C122-A
Revised 1-1-66

POOL NAME	POOL SLOPE	FORMATION	COUNTY
BLANCO	n= .750	MV	SJ

COMPANY			WELL NAME AND NUMBER		
GREAT LAKES CHEMICAL CORP.			HAMMOND #5		
UNIT LETTER	SECTION	TOWNSHIP	RANGE	PURCHASING PIPELINE	
F	35	27 N	8W	EPNG	
CASING O.D. - INCHES	CASING I.D. - INCHES	SET AT DEPTH - FEET	TUBING O.D. - INCHES	TUBING I.D. - INCHES	TOP - TUBING PERF. - FEET
4.500		4629	1.500		4488
GAS PAY ZONE		WELL PRODUCING THRU		GAS GRAVITY	GRAVITY X LENGTH
FROM 4466 TO 4532		CASING	TUBING X	.731	3251
DATE OF FLOW TEST			DATE SHUT-IN PRESSURE MEASURED		
FROM 1/26/91 TO 2/1/91			2/8/91		

PRESSURE DATA - ALL PRESSURES IN PSIA

(a) Flowing Casing Pressure (DWt)	(b) Flowing Tubing Pressure (DWt)	(c) Flowing Meter Pressure (DWt)	(d) Flow Chart Static Reading	(e) Meter Error (Item c - Item d)	(f) Friction Loss (a - c) or (b - c)	(g) Average Meter Pressure (Integr.)
331	248	243	228	15	5	231
(h) Corrected Meter Pressure (g + e)	**(i) Avg. Wellhead Press. P_t = (h + f)**	**(j) Shut-in Casing Pressure (DWt)**	**(k) Shut-in Tubing Pressure (DWt)**	**(l) P_c = higher value of (j) or (k)**	**(m) Del. Pressure P_d = 70 %P_c**	**(n) Separator or Dehydrator Pr. (DWt) for critical flow only**
246	251	524	518	524	367	—

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D	Quotient of $\frac{\text{Item c}}{\text{Item d}}$	$\sqrt{\frac{\text{Item c}}{\text{Item d}}}$	Corrected Volume
123	1.06667	1.03280	Q = 127 MCF/D

WORKING PRESSURE CALCULATION

$(1-e^{-s})$	$(P_c\ Q_m)^2$ (1000)	$R^2 = (1-e^{-s})(P_c\ Q_m)^2$ (1000)	P_t^2	$P_w^2 = P_t^2 + R^2$	$P_w = \sqrt{P_w^2}$
.212	4.393 ~~2.456~~	932	63.095	64.027	253

DELIVERABILITY CALCULATION

$$D = Q\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2}\right]^n = 127\left[\left(\frac{140.034}{210.549}\right)^{.6651}\right]^{.7365} = 94 \text{ MCF/D}$$

REMARKS:

Ex. 43

RECEIVED
MAR 05 1991
OIL CON. DIV.
DIST. 3

SUMMARY

P_t	246	Psia
P_c	524	Psia
Q	127	MCF/D
P_w	253	Psia
P_d	367	Psia
D	94	MCF/D

Company GREAT LAKES CHEMICAL CORP.
By Tom Smith
Title Agent
Witnessed By
Company

C

NEW MEXICO OIL CONSERVATION COMMISSION
WELL DELIVERABILITY TEST REPORT FOR 19 90

Form C122-A
Revised 1-1-66

POOL NAME	POOL SLOPE	FORMATION	COUNTY
BLANCO	n= .75	MESA VERDE	SAN JUAN

COMPANY			WELL NAME AND NUMBER		
GREAT LAKES CHEMICAL CORP.			HAMMOND No. 55		
UNIT LETTER	SECTION	TOWNSHIP	RANGE	PURCHASING PIPELINE	
~~K~~ B	26	27N	8W	EPNG	
CASING O.D. - INCHES	CASING I.D. - INCHES	SET AT DEPTH - FEET	TUBING O.D. - INCHES	TUBING I.D. - INCHES	TOP - TUBING PERF. - FEET
4 1/2		4650	1 1/4		4430
GAS PAY ZONE		WELL PRODUCING THRU		GAS GRAVITY	GRAVITY X LENGTH
FROM 4400 TO 4508		CASING	TUBING X	.716	3172
DATE OF FLOW TEST			DATE SHUT-IN PRESSURE MEASURED		
FROM 4/15/91 TO 4/22/91			2/7/91		

PRESSURE DATA - ALL PRESSURES IN PSIA

(a) Flowing Casing Pressure (DWt)	(b) Flowing Tubing Pressure (DWt)	(c) Flowing Meter Pressure (DWt)	(d) Flow Chart Static Reading (9.0)	(e) Meter Error (Item c - Item d)	(f) Friction Loss (a - c) or (b - c)	(g) Average Meter Pressure (Integr.)
443	413	406	405	+1	+7	387
(h) Corrected Meter Pressure (g + e)	**(i) Avg. Wellhead Press. P_t = (h + f)**	**(j) Shut-in Casing Pressure (DWt)**	**(k) Shut-in Tubing Pressure (DWt)**	**(l) P_c = higher value of (j) or (k)**	**(m) Del. Pressure P_d = 70 %P_c**	**(n) Separator or Dehydrator Pr. (DWt) for critical flow only**
388	395	540	538	540	378	

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D	Quotient of $\frac{\text{Item c}}{\text{Item d}}$	$\sqrt{\frac{\text{Item c}}{\text{Item d}}}$	Corrected Volume
113	1.00247	1.00123	Q = 113 MCF/D

WORKING PRESSURE CALCULATION

$(1-e^{-s})$	$(F_c Q_m)^2 (1000)$	$R^2 = (1-e^{-s})(F_c Q_m)^2(1000)$	P_t^2	$P_w^2 = P_t^2 + R^2$	$P_w = \sqrt{P_w^2}$
.206	7,690	1.584	155.926	157.510	397

DELIVERABILITY CALCULATION

$$D = Q\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2}\right]^n = 113 \left[\left(\frac{148.716}{134.089}\right)^n = (1.1091)^n = 1.0807\right] = 122 \text{ MCF/D}$$

REMARKS: $F_c = 24.62$

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JUN 5 1991
OIL CON. DIV
DIST. 3

SUMMARY

Item b	388	Psia
P_c	540	Psia
Q	113	MCF/D
P_w	397	Psia
P_d	378	Psia
D	122	MCF/D

Company GREAT LAKES CHEMICAL CORP.
By TOM SMITH
Title AGENT
Witnessed By
Company

C

NEW MEXICO OIL CONSERVATION COMMISSION
WELL DELIVERABILITY TEST REPORT FOR 1990

Form C122-A
Revised 1-1-66

POOL NAME	POOL SLOPE	FORMATION	COUNTY
BLANCO	n= .75	MESAVERDE	SAN JUAN

COMPANY			WELL NAME AND NUMBER		
GREAT LAKES CHEMICAL CORP			HAMMOND No. 55-A		
UNIT LETTER	SECTION	TOWNSHIP	RANGE	PURCHASING PIPELINE	
I	26	27N	8W	EPNG	
CASING O.D. - INCHES	CASING I.D. - INCHES	SET AT DEPTH - FEET	TUBING O.D. - INCHES	TUBING I.D. - INCHES	TOP - TUBING PERF. - FEET
4½		4636	1½	1.610	4617
GAS PAY ZONE		WELL PRODUCING THRU		GAS GRAVITY	GRAVITY X LENGTH
FROM 4460 TO 4620		CASING	TUBING X	.753	3477
DATE OF FLOW TEST			DATE SHUT-IN PRESSURE MEASURED		
FROM 4/15/91 TO 4/22/91			4/1/91		

PRESSURE DATA - ALL PRESSURES IN PSIA

(a) Flowing Casing Pressure (DWt)	(b) Flowing Tubing Pressure (DWt)	(c) Flowing Meter Pressure (DWt)	(d) Flow Chart Static Reading	(e) Meter Error (Item c - Item d)	(f) Friction Loss (a - c) or (b - c)	(g) Average Meter Pressure (Integr.)
467	418	418	(9.1) 414	+4	0	392
(h) Corrected Meter Pressure (g + e)	**(i) Avg. Wellhead Press. P_t = (h + f)**	**(j) Shut-in Casing Pressure (DWt)**	**(k) Shut-in Tubing Pressure (DWt)**	**(l) P_c = higher value of (j) or (k)**	**(m) Del. Pressure P_d = 70 %P_c**	**(n) Separator or Dehydrator Pr. (DWt) for critical flow only**
396	396	512	206	512	358	—

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D	Quotient of $\frac{\text{Item c}}{\text{Item d}}$	$\sqrt{\frac{\text{Item c}}{\text{Item d}}}$	Corrected Volume
77	1.00954	1.00476	Q = 78 MCF/D

WORKING PRESSURE CALCULATION

$(1-e^{-s})$	$(P_c Q_m)^2$ (1000)	$R^2 = (1-e^{-s})(P_c Q_m)^2(1000)$	P_t^2	$P_w^2 = P_t^2 + R^2$	$P_w = \sqrt{P_w^2}$
.223	1,637	366	156,618	156,984	396

DELIVERABILITY CALCULATION

$$D = Q\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2}\right]^n = 78 \left[\left(\frac{133,693}{105,160}\right)^n = (1.2713)^n = 1.1973\right] = 93 \text{ MCF/D}$$

REMARKS: $F_c = 16.46$

RECEIVED
JUN 5 1991
OIL CON. DIV
DIST. 3

SUMMARY

Item h	396	Psia
P_c	512	Psia
Q	78	MCF/D
P_w	396	Psia
P_d	358	Psia
D	93	MCF/D

Company GREAT LAKES CHEMICAL CORP.
By TOM SMITH
Title AGENT
Witnessed By
Company

C

NEW MEXICO OIL CONSERVATION COMMISSION
WELL DELIVERABILITY TEST REPORT FOR 19 90

Form C122-A
Revised 1-1-66

POOL NAME	POOL SLOPE	FORMATION	COUNTY
BLANCO	n= .75	MESA VERDE	SAN JUAN

COMPANY			WELL NAME AND NUMBER		
GREAT LAKES CHEMICAL CORP.			GRAHAM No. 1-A (MV)		
UNIT LETTER	SECTION	TOWNSHIP	RANGE	PURCHASING PIPELINE	
P	4	27N	8W	EPNG	
CASING O.D. - INCHES	CASING I.D. - INCHES	SET AT DEPTH - FEET	TUBING O.D. - INCHES	TUBING I.D. - INCHES	TOP - TUBING PERF. - FEET
5½		4650	1¼		4493
GAS PAY ZONE		WELL PRODUCING THRU		GAS GRAVITY	GRAVITY X LENGTH
FROM 4438 TO 4604		CASING	TUBING X	.751	3374
DATE OF FLOW TEST			DATE SHUT-IN PRESSURE MEASURED		
FROM 4/15/91 TO 4/22/91			4/1/91		

PRESSURE DATA - ALL PRESSURES IN PSIA

(a) Flowing Casing Pressure (DWt)	(b) Flowing Tubing Pressure (DWt)	(c) Flowing Meter Pressure (DWt)	(d) Flow Chart Static Reading	(e) Meter Error (Item c - Item d)	(f) Friction Loss (a - c) or (b - c)	(g) Average Meter Pressure (Integr.)
—	262	178	(6.85) 188	-9	+84	170
(h) Corrected Meter Pressure (g + e)	**(i) Avg. Wellhead Press. P_t = (h + f)**	**(j) Shut-in Casing Pressure (DWt)**	**(k) Shut-in Tubing Pressure (DWt)**	**(l) P_c = higher value of (j) or (k)**	**(m) Del. Pressure P_d = 70 / 365 %P_c**	**(n) Separator or Dehydrator Pr. (DWt) for critical flow only**
161	245	—	521	521		—

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D	Quotient of $\frac{\text{Item c}}{\text{Item d}}$	$\sqrt{\frac{\text{Item c}}{\text{Item d}}}$	Corrected Volume
220	.94837	.97384	Q = 214 MCF/D

WORKING PRESSURE CALCULATION

$(1-e^{-s})$	$(P_c\ Q_m)^2\ (1000)$	$R^2 = (1-e^{-s})(P_c\ Q_m)^2(1000)$	P_t^2	$P_w^2 = P_t^2 + R^2$	$P_w = \sqrt{P_w^2}$
.217	27.791	6,046	59.871	65.918	257

DELIVERABILITY CALCULATION

$$D = Q\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2}\right]^n = 214\left[\left(\frac{138.435}{205.523}\right)^n = (.6736)^n = .7435\right] = 159 \text{ MCF/D}$$

REMARKS: P_c = 2462

RECEIVED
JUN 5 1991
OIL CON. DIV.
DIST. 3

SUMMARY

Item h	161	Psia
P_c	521	Psia
Q	214	MCF/D
P_w	257	Psia
P_d	365	Psia
D	159	MCF/D

Company GREAT LAKES CHEMICAL CORP.
By TOM SMITH
Title AGENT
Witnessed By
Company

Jan - March 1987 gas transportation schedule

GRAHAM NO. 3, POOL UNIT SUMMARY

MONTH/ YEAR	DELIVER- ABILITY	MONTHLY PRODUCTION	CORRECT ALLOWABLE	MONTHLY + = UNDER OVER/UNDER - = OVER
MAR/87	246			8932
APR/87	0	2396	0	6536
MAY/87	0	2521	0	4015
JUN/87	0	2427	0	1588
JUL/87	0	2842	0	-1254
AUG/87	0	2442	0	-3696
SEP/87	0	2318	0	-6014
OCT/87	0	2261	0	-8275
NOV/87	0	1842	0	-10117
DEC/87	0	1477	0	-11594
		20526	0	
JAN/88	0	0	0	-11594
FEB/88	0	3693	0	-15287
MAR/88	0	2649	0	-17936
APR/88	0	1908	0	-19844
MAY/88	0	2633	0	-22477
JUN/88	0	2133	0	-24610
JUL/88	0	2015	0	-26625
AUG/88	0	1908	0	-28533
SEP/88	0	1911	0	-30444
OCT/88	0	1924	0	-32368
NOV/88	0	1549	0	-33917
DEC/88	0	2443	0	-36360
		24766		
JAN/89	0	1549	0	-37909
FEB/89	0	0	0	-37909
MAR/89	0	0	0	-37909
APR/89	0	0	0	-37909
MAY/89	0	0	0	-37909
JUN/89	0	0	0	-37909
JUL/89	0	0	0	-37909
AUG/89	0	0	0	-37909
SEP/89	0	0	0	-37909
OCT/89	0	0	0	-37909
NOV/89	0	0	0	-37909
DEC/89	0	0	0	-37909
		1549	0	

GRAHAM NO. 3, POOL UNIT SUMMARY

MONTH/ YEAR	DELIVER- ABILITY	MONTHLY PRODUCTION	CORRECT ALLOWABLE	MONTHLY + = UNDER OVER/UNDER - = OVER
JAN/90	0	0	0	-37909
FEB/90	0	0	0	-37909
MAR/90	0	0	0	-37909
APR/90	0	0	0	-37909
MAY/90	0	0	0	-37909
JUN/90	0	1515	0	-39424
JUL/90	0	2529	0	-41953
AUG/90	0	2910	0	-44863
SEP/90	0	3133	0	-47996
OCT/90	0	2667	0	-50663
NOV/90	0	2736	0	-53399
DEC/90	0	3098	0	-56497
		18588	0	
JAN/91	0	3034	0	-59531
FEB/91	0	1635	0	-61166
MAR/91	0	0	0	-61166
APR/91	86	468	1921	-59713
MAY/91	86	0	1921	-57792
JUN/91	86	0	1921	-55871
JUL/91	86	0	1921	-53950
AUG/91	86	305	1921	-52334
SEP/91	86	2923	1921	-53336
OCT/91	86	465	2094	-51707
NOV/91	86	3637	2094	-53250
DEC/91	86	0	2094	-51156
		12467	17808	
JAN/92	86		2094	
FEB/92	86		2094	
MAR/92	86		2094	
APR/92				
MAY/92				
JUN/92				
JUL/92				
AUG/92				
SEP/92				
OCT/92				
NOV/92				
DEC/92				

1/22/92 9:05AM

GRAHAM NO. 1 & NO. 1A, POOL UNIT SUMMARY

MONTH/ YEAR	DELIVER- ABILITY	MONTHLY PRODUCTION	CORRECT ALLOWABLE	MONTHLY + = UNDER OVER/UNDER - = OVER
MAR/87	471			53627
APR/87	0	9816	0	43811
MAY/87	0	7968	0	35843
JUN/87	0	10777	0	25066
JUL/87	0	13641	0	11425
AUG/87	0	10889	0	536
SEP/87	0	9970	0	-9434
OCT/87	0	8448	0	-17882
NOV/87	0	5609	0	-23491
DEC/87	0	9241	0	-32732
		86359	0	
JAN/88	0	7097	0	-39829
FEB/88	0	9177	0	-49006
MAR/88	0	6798	0	-55804
APR/88	0	2573	0	-58377
MAY/88	0	9210	0	-67587
JUN/88	0	9466	0	-77053
JUL/88	0	10557	0	-87610
AUG/88	0	9242	0	-96852
SEP/88	0	5407	0	-102259
OCT/88	0	8570	0	-110829
NOV/88	0	8704	0	-119533
DEC/88	0	2625	0	-122158
		89426	0	
JAN/89	0	1971	0	-124129
FEB/89	0	4119	0	-128248
MAR/89	0	3055	0	-131303
APR/89	0	0	0	-131303
MAY/89	0	0	0	-131303
JUN/89	0	0	0	-131303
JUL/89	0	0	0	-131303
AUG/89	0	0	0	-131303
SEP/89	0	0	0	-131303
OCT/89	0	0	0	-131303
NOV/89	0	0	0	-131303
DEC/89	0	1663	0	-132966
		10808	0	

GRAHAM NO. 1 & NO. 1A, POOL UNIT SUMMARY

MONTH/ YEAR	DELIVER-ABILITY	MONTHLY PRODUCTION	CORRECT ALLOWABLE	MONTHLY + = UNDER OVER/UNDER - = OVER
JAN/90	0	12215	0	-145181
FEB/90	0	8287	0	-153468
MAR/90	0	108	0	-153576
APR/90	0	0	0	-153576
MAY/90	0	0	0	-153576
JUN/90	0	7363	0	-160939
JUL/90	0	7744	0	-168683
AUG/90	0	7341	0	-176024
SEP/90	0	7479	0	-183503
OCT/90	0	8769	0	-192272
NOV/90	0	8387	0	-200659
DEC/90	0	8058	0	-208717
		75751	0	
JAN/91	0	4500	0	-213217
FEB/91	0	1689	0	-214906
MAR/91	0	0	0	-214906
APR/91	266	8503	5987	-217422
MAY/91	266	9150	5987	-220585
JUN/91	266	5980	5987	-220578
JUL/91	425	3998	7881	-216695
AUG/91	425	3517	7881	-212331
SEP/91	425	3344	7881	-207794
OCT/91	425	3625	8462	-202957
NOV/91	425	1666	8462	-196161
DEC/91	425	1032	8462	-188731
		47004	66990	
JAN/92	425		8462	
FEB/92	425		8462	
MAR/92	425		8462	
APR/92				
MAY/92				
JUN/92				
JUL/92				
AUG/92				
SEP/92				
OCT/92				
NOV/92				
DEC/92				

1/22/92 9:45AM

HAMMOND NO. 5, POOL UNIT SUMMARY

MONTH/ YEAR	DELIVER- ABILITY	MONTHLY PRODUCTION	CORRECT ALLOWABLE	MONTHLY + = UNDER OVER/UNDER - = OVER
MAR/87	157			-10770
APR/87	0	2753	0	-13523
MAY/87	0	2797	0	-16320
JUN/87	0	2675	0	-18995
JUL/87	0	3209	0	-22204
AUG/87	0	2544	0	-24748
SEP/87	0	3165	0	-27913
OCT/87	0	2811	0	-30724
NOV/87	0	2277	0	-33001
DEC/87	0	2519	0	-35520
		24750	0	
JAN/88	0	2395	0	-37915
FEB/88	0	715	0	-38630
MAR/88	0	0	0	-38630
APR/88	0	2914	0	-41544
MAY/88	0	3186	0	-44730
JUN/88	0	2401	0	-47131
JUL/88	0	2486	0	-49617
AUG/88	0	2467	0	-52084
SEP/88	0	986	0	-53070
OCT/88	0	3489	0	-56559
NOV/88	0	2952	0	-59511
DEC/88	0	2716	0	-62227
		26707	0	
JAN/89	0	3821	0	-66048
FEB/89	0	2493	0	-68541
MAR/89	0	340	0	-68881
APR/89	0	993	0	-69874
MAY/89	0	0	0	-69874
JUN/89	0	0	0	-69874
JUL/89	0	0	0	-69874
AUG/89	0	0	0	-69874
SEP/89	0	0	0	-69874
OCT/89	0	0	0	-69874
NOV/89	0	0	0	-69874
DEC/89	0	2686	0	-72560
		10333	0	

HAMMOND NO. 5, POOL UNIT SUMMARY

MONTH/ YEAR	DELIVER- ABILITY	MONTHLY PRODUCTION	CORRECT ALLOWABLE	MONTHLY + = UNDER OVER/UNDER - = OVER
JAN/90	0	3603	0	-76163
FEB/90	0	614	0	-76777
MAR/90	0	0	0	-76777
APR/90	0	4973	0	-81750
MAY/90	0	36	0	-81786
JUN/90	0	0	0	-81786
JUL/90	0	0	0	-81786
AUG/90	0	0	0	-81786
SEP/90	0	4493	0	-86279
OCT/90	0	2465	0	-88744
NOV/90	0	2590	0	-91334
DEC/90	0	1997	0	-93331
		20771	0	
JAN/91	0	3539	0	-96870
FEB/91	0	1750	0	-98620
MAR/91	0	0	0	-98620
APR/91	93	0	1969	-96651
MAY/91	93	0	1969	-94682
JUN/91	93	0	1969	-92713
JUL/91	93	0	1969	-90744
AUG/91	93	0	1969	-88775
SEP/91	93	4168	1969	-90974
OCT/91	93	445	2144	-89275
NOV/91	93	3112	2144	-90243
DEC/91	93	303	2144	-88402
		13317	18246	
JAN/92	93		2144	
FEB/92	93		2144	
MAR/92	93		2144	
APR/92				
MAY/92				
JUN/92				
JUL/92				
AUG/92				
SEP/92				
OCT/92				
NOV/92				
DEC/92				

1/22/92 10:05AM

HAMMOND NO. 55 & NO. 55A, POOL UNIT SUMMARY

MONTH/ YEAR	DELIVER- ABILITY	MONTHLY PRODUCTION	CORRECT ALLOWABLE	MONTHLY + = UNDER OVER/UNDER - = OVER
MAR/87	281			32776
APR/87	0	5533	0	27243
MAY/87	0	4780	0	22463
JUN/87	0	4264	0	18199
JUL/87	0	7583	0	10616
AUG/87	0	4318	0	6298
SEP/87	0	5008	0	1290
OCT/87	0	2446	0	-1156
NOV/87	0	3464	0	-4620
DEC/87	0	6193	0	-10813
		43589	0	
JAN/88	0	4042	0	-14855
FEB/88	0	5425	0	-20280
MAR/88	0	3025	0	-23305
APR/88	0	2485	0	-25790
MAY/88	0	2179	0	-27969
JUN/88	0	3443	0	-31412
JUL/88	0	3200	0	-34612
AUG/88	0	1595	0	-36207
SEP/88	0	1268	0	-37475
OCT/88	0	6213	0	-43688
NOV/88	0	3460	0	-47148
DEC/88	0	3353	0	-50501
		39688	0	
JAN/89	0	2340	0	-52841
FEB/89	0	2292	0	-55133
MAR/89	0	0	0	-55133
APR/89	0	0	0	-55133
MAY/89	0	0	0	-55133
JUN/89	0	0	0	-55133
JUL/89	0	4310	0	-59443
AUG/89	0	7457	0	-66900
SEP/89	0	6222	0	-73122
OCT/89	0	4340	0	-77462
NOV/89	0	6238	0	-83700
DEC/89	0	7527	0	-91227
		40726	0	

HAMMOND NO. 55 & NO. 55A, POOL UNIT SUMMARY

MONTH/ YEAR	DELIVER- ABILITY	MONTHLY PRODUCTION	CORRECT ALLOWABLE	MONTHLY + = UNDER OVER/UNDER - = OVER
JAN/90	0	4997	0	-96224
FEB/90	0	7343	0	-103567
MAR/90	0	4459	0	-108026
APR/90	0	971	0	-108997
MAY/90	0	4024	0	-113021
JUN/90	0	2678	0	-115699
JUL/90	0	2559	0	-118258
AUG/90	0	1585	0	-119843
SEP/90	0	3298	0	-123141
OCT/90	0	2906	0	-126047
NOV/90	0	2062	0	-128109
DEC/90	0	3245	0	-131354
		40127	0	
JAN/91	0	218	0	-131572
FEB/91	0	5098	0	-136670
MAR/91	0	0	0	-136670
APR/91	0	6057	0	-142727
MAY/91	0	1186	0	-143913
JUN/91	0	847	0	-144760
JUL/91	214	528	5367	-139921
AUG/91	214	2176	5367	-136730
SEP/91	214	1238	5367	-132601
OCT/91	214	1878	5802	-128677
NOV/91	214	832	5802	-123707
DEC/91	214	0	5802	-117905
		20058	33507	
JAN/92	214		5802	
FEB/92	214		5802	
MAR/92	214		5802	
APR/92				
MAY/92				
JUN/92				
JUL/92				
AUG/92				
SEP/92				
OCT/92				
NOV/92				
DEC/92				

1/22/92 10:00AM

WELL SUMMARY
GREAT LAKES CHEMICAL CORP.
BLANCO-MESAVERDE GAS POOL

Graham Lease

Well No. 1-A Sec. 4-27N-8W
990 FNL 990 FEL

Well No. 1A-P Sec. 4-27N-8W
880 FSL 790 FEL

Well No. 3-J Sec. 3-27N-8W
1450 FSL 1830 FEL

Hammond Lease

Well No. 55-B Sec. 26-27N-8W
990 FNL 1523 FEL

Well No. 55A-I Sec. 26-27N-8W
1850 FSL 935 FEL

Well No. 5-F Sec. 35-27N-8W
1840 FNL 1750 FWL

Great Lakes Exhibits 1 through 11 Complete Set

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
GREAT LAKES EXHIBIT NO. 1
CASE NO. 10407

State of New Mexico
Energy, Minerals &
Natural & Resources Dept.

Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

3225

Gas
Supplement
No.:NW 3948
Date: 1/22/90

NOTICE OF ASSIGNMENT OF ALLOWABLE TO A GAS WELL

The operator of the following well has complied with all the requirments of the Oil Conservation Division and the well is hereby assigned an allowable as shown below.

Date of Cancellation 4-1-90 Date of ~~Recompletion~~ Allowable Change 4-1-90
Purchaser EPG EPG Pool Blanco MV
Operator Great Lakes Chemical Corp. Lease Graham
Well No. 1 & 1A Unit Letter A & P Sec. 4 Twn. 27N Rge. 8W
Dedicated Acreage 320.79 Revised Acreage _____ Difference _____
Acreage Factor 1.00 Revised Acreage Factor _____ Difference _____
Deliverability 471 Revised Deliverability 0 Difference -471
A x D Factor _____ Revised A x D Factor _____ Difference _____

OCD District No. III

CALCULATION OF SUPPLEMENTAL ALLOWABLE

Previous Status Adjustments

MONTH	PREV. ALLOW.	REV. ALLOW.	PREV. PROD.	REV. PROD.	REMARKS
April					Failure to file 1989 deliverability tests with the Oil Conservation Division, Aztec, NM.
May					
June					
July					
August					
September					
October					
November					
December					
January					
February					
March					
April	6987	2063			
May	9006	2911			
June	13678	4404			
July	12725	4068			
August	8130	2599			
September	7362	2461			
October	10749	3548			
November	11465	3782			
December	10657	3515			
January	13706	4610			
February	10089	3333			
March					
TOTALS					

Changed deliverability to 0 as of April 90.

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
GREAT LAKES EXHIBIT NO. 2
CASE NO. 10407

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FEB 28 1991
OIL CON. DIV.
DIST. 3

Allowable Production Difference.....
Schedule O/U Status.....
Revised March O/U Status..... 25790 -

Effective In March
Current Classification M
Schedule To

Note: All gas volumes are in MCF@15.025 psia.

William J. LeMay, Division Director
By Jennifer Ramos

Energy, Minerals & Natural & Resources Dept.

P.O. Box 2088
Santa Fe, New Mexico 87501

Supplement No.:NW 3025
Date: 7/19/91

NOTICE OF ASSIGNMENT OF ALLOWABLE TO A GAS WELL

The operator of the following well has complied with all the requirments of the Oil Conservation Division and the well is hereby assigned an allowable as shown below.

Date of Connection _____ Date of ~~First Allowable~~ Allowable Change 6/25/91
Purchaser EPG EPG Pool Blanco MV
Operator Great Lakes Chemical Corp. Lease Graham
Well No. 1 & 1A Unit Letter A & P Sec. 4 Twn. 27N Rge. 8W
Dedicated Acreage 320.79 Revised Acreage _____ Difference _____
Acreage Factor 1.00 Revised Acreage Factor _____ Difference _____
Deliverability 471 Revised Deliverability 425 Difference -46
A x D Factor _____ Revised A x D Factor _____ Difference _____

1=266 1A=159 N Alice Duggan OCD District No. III

CALCULATION OF SUPPLEMENTAL ALLOWABLE

Previous Status Adjustments.....

MO.	PREV. ALLOW.	REV. ALLOW.	PREV. PROD.	REV. PROD.	REMARKS
Apr					
May					Penalty for delinquent test from
Jun					4-1-90 to 6-25-91 (1989)
Jul					
Aug					
Sep					
Oct					
Nov					
Dec					
Jan					
Feb					
Mar					
Apr					
May					
Jun					
Jul					
Aug					
Sep					
Oct					
Nov					
Dec					
Jan					
Feb					
Mar					
TOTALS					

Allowable Production Difference.....
Schedule O/U Status.....
Revised _____ O/U Status.....
Effective In _____ Schedule _____
Current Classification _____ To _____

Note: All gas volumes are in MCF@15.025 psia.

William J. LeMay, Division Director

By _____

3197

State of New Mexico
Energy, Minerals &
Natural & Resources Dept.

Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Gas
Supplement
No.:NW 3949
Date:

NOTICE OF ASSIGNMENT OF ALLOWABLE TO A GAS WELL

The operator of the following well has complied with all the requirments of the Oil Conservation Division and the well is hereby assigned an allowable as shown below.

Date of Cancellation 4/1/90 Date of ~~Assignment~~ Allowable Change 4/1/90
Purchaser EPG Pool Blanco MV
Operator Great Lakes Chemical Corp. Lease Graham
Well No. 3 Unit Letter J Sec. 3 Twn. 27N Rge. 8W
Dedicated Acreage 160 Revised Acreage Difference
Acreage Factor .50 Revised Acreage Factor Difference
Deliverability 246 Revised Deliverability 0 Difference -246
A x D Factor Revised A x D Factor Difference

OCD District No. III

CALCULATION OF SUPPLEMENTAL ALLOWABLE

Previous Status Adjustments

MONTH	PREV. ALLOW.	REV. ALLOW.	PREV. PROD.	REV. PROD.	REMARKS
April					Failure to file 1989 deliverability tests with the Oil Conservation Division, Aztec, NM.
May					
June					
July					
August					
September					
October					Changed deliverability to 0 as of 4-1-90.
November					
December					
January					
February					
March					
April	2318		1032		
May	3047		1455		
June	4624		2202		
July	4295		2034		
August	2744		1300		
September	2510		1230		
October	3655		1775		
November	3897		1891		
December	3623		1758		
January	4680		2305		
February	3431		1667		
March					
TOTALS					

Allowable Production Difference.....
Schedule O/U Status.....
Revised March O/U Status..... 3911 -

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FEB 28 1991
OIL CON. DIV.
DIST. 3

Effective In March Schedule
Current Classification M To

Note: All gas volumes are in MCF@15.025 psia.

William J. LeMay, Division Director

By Juanita Romero

State of New Mexico
Energy, Minerals &
Natural & Resources Dept.

Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Gas
Supplement
No.:NW 3997
Date: 4/22/91

NOTICE OF ASSIGNMENT OF ALLOWABLE TO A GAS WELL

The operator of the following well has complied with all the requirments of the Oil Conservation Division and the well is hereby assigned an allowable as shown below.

Date of Connection _____ Date of ~~First~~ Allowable or Allowable Change 3/25/91
Purchaser EPG Pool Blanco Mesaverde
Operator Great Lakes Chemical Corp. Lease Graham
Well No. 3 Unit Letter J Sec. 3 Twn. 27N Rge. 8W

Dedicated Acreage	160	Revised Acreage		Difference	
Acreage Factor	.50	Revised Acreage Factor		Difference	
Deliverability	0	Revised Deliverability	86	Difference	+86
A x D Factor		Revised A x D Factor	43	Difference	+43

M _____ OCD District No. III

CALCULATION OF SUPPLEMENTAL ALLOWABLE

Previous Status Adjustments.....

MO.	PREV. ALLOW.	REV. ALLOW.	PREV. PROD.	REV. PROD.	REMARKS
Apr					
May					Penalty for delinquent 1989 test
Jun					from 4-1-90 to 3-25-91
Jul					
Aug					Penalize D Only
Sep					
Oct					
Nov					
Dec					
Jan					
Feb					
Mar					
Apr					
May					
Jun					
Jul					
Aug					
Sep					
Oct					
Nov					
Dec					
Jan					
Feb					
Mar					
TOTALS					

Allowable Production Difference.....
Schedule O/U Status.....
Revised _____ O/U Status.....
Effective In _____ Schedule _____
Current Classification _____ To _____

Note: All gas volumes are in MCF@15.025 psia.

William J. LeMay, Division Director

By _____

State of New Mexico
Energy, Minerals &
Natural & Resources Dept.

Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Gas
Supplement
No.: NW 3950
Date: 1/22/90

NOTICE OF ASSIGNMENT OF ALLOWABLE TO A GAS WELL

The operator of the following well has complied with all the requirments of the Oil Conservation Division and the well is hereby assigned an allowable as shown below.

Date of Cancellation 4/1/90 — Date of ~~Xxxxxxxxxx~~ Allowable Change 4/1/90
Purchaser EPG EPG — Pool Blanco MV
Operator Great Lakes Chemical Corp. — Lease Hammond
Well No. 55 & 55A — Unit Letter B & G — Sec. 26 — Twn. 27N — Rge. 8W
Dedicated Acreage 320 — Revised Acreage ____ — Difference ____
Acreage Factor 1.00 — Revised Acreage Factor ____ — Difference ____
Deliverability 281 — Revised Deliverability 0 — Difference -281
A x D Factor ____ — Revised A x D Factor ____ — Difference ____

OCD District No. III

CALCULATION OF SUPPLEMENTAL ALLOWABLE

Previous Status Adjustments MONTH	PREV. ALLOW.	REV. ALLOW.	PREV. PROD.	REV. PROD.	REMARKS
April					Failure to file 1989 deliverability tests with the Oil Conservation Division, Aztec, NM.
May					
June					
July					
August					
September					
October					Changed deliverability to 0 as of 4-1-90.
November					
December					
January					
February					
March					
April	5001		2063		
May	6547		2911		
June	9937		4404		
July	9233		4068		
August	5899		2599		
September	5385		2461		
October	7844		3548		
November	8365		3781		
December	7776		3515		
January	10037		4610		
February	7364		3333		
March					
TOTALS					

Allowable Production Difference.....
Schedule O/U Status.....
Revised March O/U Status..... 6022

RECEIVED
FEB 28 1991
OIL CON. DIV.
DIST. 3

Effective In March — Schedule
Current Classification N — To

Note: All gas volumes are in MCF@15.025 psia.

William J. LeMay, Division Director
By Frank Romero

State of New Mexico
Energy, Minerals &
Natural & Resources Dept.

Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Supplement
No.:NW 3026
Date: 7/19/91

NOTICE OF ASSIGNMENT OF ALLOWABLE TO A GAS WELL

The operator of the following well has complied with all the requirments of the Oil Conservation Division and the well is hereby assigned an allowable as shown below.

Date of Connection _____ Date of First Allowable or Allowable Change 6/25/91
Purchaser EPG EPG Pool Blanco MV
Operator Great Lakes Chemical Corp. Lease Hammond
Well No. 55 & 55A Unit Letter B & I Sec. 26 Twn. 27N Rge. 8W
Dedicated Acreage 320 Revised Acreage _____ Difference _____
Acreage Factor 1.00 Revised Acreage Factor _____ Difference _____
Deliverability 281 Revised Deliverability 214 Difference -67
A x D Factor _____ Revised A x D Factor _____ Difference _____

55=122 55A=92 N Alice Duggan OCD District No. III

CALCULATION OF SUPPLEMENTAL ALLOWABLE

Previous Status Adjustments.....

MO.	PREV. ALLOW.	REV. ALLOW.	PREV. PROD.	REV. PROD.	REMARKS
Apr					
May					Penalty for delinquent 1989 test
Jun					from 4-1-90 to 6-25-91
Jul					
Aug					
Sep					
Oct					
Nov					
Dec					Sent by Fax 7-19-91
Jan					
Feb					
Mar					
Apr					
May					
Jun					
Jul					
Aug					
Sep					
Oct					
Nov					
Dec					
Jan					
Feb					
Mar					
TOTALS					

Allowable Production Difference.....
_____ Schedule O/U Status.....
Revised _____ O/U Status.....
Effective In _____ Schedule _____
Current Classification _____ To _____

Note: All gas volumes are in MCF@15.025 psia.

William J. LeMay, Division Director

By _____

State of New Mexico
Energy, Minerals &
Natural & Resources Dept.

Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Supplement
No.: NW 3951
Date: 1/22/90

NOTICE OF ASSIGNMENT OF ALLOWABLE TO A GAS WELL

The operator of the following well has complied with all the requirments of the Oil Conservatio Division and the well is hereby assigned an allowable as shown below.

Date of Cancellation Connection 4/1/90 — Date of First Allowable or Allowable Change 4/1/90
Purchaser EPG — Pool Blanco MV
Operator Great Lakes Chemical Codp. — Lease Hammond
Well No. 5 — Unit Letter F — Sec. 35 — Twn. 27N — Rge. 8W
Dedicated Acreage 160 — Revised Acreage ____ — Difference ____
Acreage Factor 50 — Revised Acreage Factor ____ — Difference ____
Deliverability 157 — Revised Deliverability 0 — Difference -157
A x D Factor ____ — Revised A x D Factor ____ — Difference ____

OCD District No. III

CALCULATION OF SUPPLEMENTAL ALLOWABLE

Previous Status Adjustments

MONTH	PREV. ALLOW.	REV. ALLOW.	PREV. PROD.	REV. PROD.	REMARKS
April					Failure to file 1989 deliverability test with the Oil Conservation Division, Aztec, NM.
May					
June					
July					
August					
September					
October					
November					Changed deliverability to 0 as of 4-1-90.
December					
January					
February					
March					
April	1858	1032			
May	2477	1455			
June	3757	2202			
July	3486	2034			
August	2227	1405			
September	2052	1230			
October	2982	1774			
November	3179	1890			
December	2955	1757			
January	2831	2305			
February	2800	1667			
March					
TOTALS	24973	14779			

Allowable Production Difference..... 10194 -
February Schedule O/U Status..... 1203
Revised March O/U Status..... 8991 -

RECEIVED
FEB 28 1991
OIL CON. DIV.
DIST. 3

Effective In March — Schedule
Current Classification N — To

Note: All gas volumes are in MCF@15.025 psia.

William J. LeMay, Division Director
By Juanita Romero

State of New Mexico
Energy, Minerals &
Natural & Resources Dept.

Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

3957

Gas
Supplement
No.:NW 3998
Date: 4/22/91

NOTICE OF ASSIGNMENT OF ALLOWABLE TO A GAS WELL

The operator of the following well has complied with all the requirments of the Oil Conservation Division and the well is hereby assigned an allowable as shown below.

Date of Connection _____ Date of ~~Xxxxtxxxxxxxxxxxx~~ Allowable Change 3/25/91
Purchaser EPG Pool Blanco Mesaverde
Operator Great Lakes Chemical Corp. Lease Hammond
Well No. 5 Unit Letter F Sec. 35 Twn. 27N Rge. 8W
Dedicated Acreage 160 Revised Acreage _____ Difference _____
Acreage Factor .50 Revised Acreage Factor _____ Difference _____
Deliverability 0 Revised Deliverability 93 Difference +93
A x D Factor _____ Revised A x D Factor 47 Difference +47

N _____ OCD District No. III

CALCULATION OF SUPPLEMENTAL ALLOWABLE

Previous Status Adjustments.....

MO.	PREV. ALLOW.	REV. ALLOW.	PREV. PROD.	REV. PROD.	REMARKS
Apr					
May					Penalty for 1989 delinquent test,
Jun					from 4-1-90 to 3/25/91
Jul					
Aug					Penalize D Only
Sep					
Oct					
Nov					
Dec					
Jan					
Feb					
Mar					
Apr					
May					
Jun					
Jul					
Aug					
Sep					
Oct					
Nov					
Dec					
Jan					
Feb					
Mar					
TOTALS					

Allowable Production Difference.....
_____ Schedule O/U Status.....
Revised _____ O/U Status.....
Effective In _____ Schedule _____
Current Classification _____ To _____

Note: All gas volumes are in MCF@15.025 psia.

William J. LeMay, Division Director

By _____

TO: ALL OPERATORS

DATE: January 23, 1989

FROM: Ed Marcum

PLACE: North Region Measurement

RE: 1989 NEW MEXICO STATE TEST SCHEDULES

This year, the commodity gas market is again expected to be very soft. Because of the lack of market, it will be difficult to have a large volume of test gas producing. Each month I will send out a "test schedule" of your wells that are scheduled for the month. If you have some wells that are producing and would like to have them tested, let me know and I will schedule them for a test. The following guidelines need to be adhered to:

STATE DELIVERABILITY TEST

1. If your wells are flowing to a market or commodity gas sales, follow the test schedule for the month. (If you do not wish to shut-in your well, we can schedule a date when the well is scheduled to be off)

2. If your wells are not producing, **DO NOT TURN THEM ON**; we will try to schedule them for a later date.

3. Gas produced without a designated market will be paid the FERC minimum rate.

The test schedule for the month of March is attached. You will receive a schedule for the following months, as they are prepared. When your wells need to be rescheduled, notify me of such, **in writing.** We will work with you to set up new dates which will suit both parties. Please call if you have any questions concerning this procedure (599-2128).

Thank you,

Ed Marcum

A:oplet.89

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
GREAT LAKES EXHIBIT NO. 3
CASE NO. 10407

LATEST ANNUAL DELIVERABILITY TESTS BASIN DAKOTA (PRORATED GAS)

WELL	S	T	R	ST	AF	SIP	DATE	M	PC	Q	PN	PD	D
UNIVERSAL RESOURCES CORP.									**********				
GRIGSBY FED													
2N	7	25N	10W	M	1.00		5/20/85	340	672	48	356	269	54
4L	8	25N	10W	M	.00		/17/77	293	534	11	293	267	12
OPERATOR TOTAL					1.00			633	1206	59	649	536	66
WALSH ENGINEERING & PROD. CORP.									**********				
MESA TWIN MOUNDS													
1D	30	30N	14W	M	1.00		8/15/85	142	344	28	175	138	23
2L	30	30N	14W	M	1.00		8/15/85	283	374	45	283	150	31
MESA TWIN MOUNDS 31													
1D	31	30N	14W	M	.00								
OPERATOR TOTAL					2.00			445	718	73	458	288	54
MAX O. WEBB									**********				
STATE 36 COM													
2B	36	30N	14W	NM	1.00		3/27/79	207	411	22	207	206	22
POOL TOTAL					1534.55			1209394	2928831	599187	1341660	1178385	662696

WELLS WITH DELIVERABILITY TESTS = 4007

BLANCO MESAVERDE (PRORATED GAS)

SUNTERRA GAS GATHERING COMPANY

WELL	S	T	R	ST	AF	SIP	DATE	M	PC	Q	PN	PD	D
AMOCO PRODUCTION CO									**********				
ABRAMS GAS COM J													
1D	25	29N	10W	M	1.00		11/28/89	388	616	162	418	431	155
ABRAMS L													
1M	26	29N	10W	U	.00		11/25/88	307	792	121	357	554	87
A 1I	26	29N	10W	U	.00		10/08/89	362	630	147	365	440	121
ARCHULETA													
1N	19	30N	8W	U	.00		1/10/89	270	462	266	302	323	245
A 1F	19	30N	8W	U	.00		1/10/89	271	422	879	335	295	1121
ARCHULETA GAS COM A													
1K	5	29N	9W	U	.00		8/07/89	361	501	393	376	350	443
A 1J	5	29N	9W	U	.00		8/07/89	362	475	186	360	332	214
ATLANTIC LS													
1H	25	31N	10W	U	.00		8/06/89	349	442	233	374	309	364
A 1I	25	31N	10W	U	.00		3/07/89	291	410	507	305	287	560
2G	24	31N	10W	U	.00		5/08/89	273	523	39	273	366	30
A 2I	24	31N	10W	U	.00		4/06/86	304	485	535	378	340	648
4L	25	31N	10W	U	.00		9/08/89	327	442	332	389	309	614
A 4D	25	31N	10W	U	.00		3/07/89	274	410	455	290	287	462
ATLANTIC COM LS													
3K	24	31N	10W	U	.00		10/08/89	342	464	100	360	324	121
A 3E	24	31N	10W	U	.00		3/07/89	285	470	824	354	329	931
ATLANTIC A LS													
1H	27	31N	10W	U	.00		8/06/89	351	442	95	336	309	109
A 1J	27	31N	10W	U	.00		12/08/89	322	394	708	292	275	781
2A	28	31N	10W	U	.00		11/16/89	345	387	696	272	270	705
A 2P	28	31N	10W	C	.00		4/07/89	280	372	548	300	260	727
3N	28	31N	10W	U	.00		8/06/89	350	580	81	345	405	68
A 3C	28	31N	10W	U	.00		3/07/89	279	424	695	311	297	747
5L	26	31N	10W	U	.00		9/08/89	339	412	141	338	288	198
A 5J	26	31N	10W	U	.00		11/08/89	343	352	325	342	246	1757
9N	27	31N	10W	U	.00		10/07/89	370	381	539	298	266	668
A 9C	27	31N	10W	U	.00		3/07/89	279	409	715	309	286	813
ATLANTIC B LS													
1A	33	31N	10W	U	.00		8/06/89	349	381	268	343	266	536
A 1B	33	31N	10W	U	.00		12/07/89	315	420	401	320	293	447
2A	4	30N	10W	U	.00		8/06/89	347	531	25	351	371	23
A 2D	4	30N	10W	U	.00		3/07/89	283	346	671	292	242	1033
3L	4	30N	10W	U	.00		9/08/89	329	405	188	338	283	278
A 3J	4	30N	10W	U	.00		5/08/89	279	490	415	321	343	381
4K	5	30N	10W	U	.00		5/08/89	250	692	23	260	484	16
A 4J	5	30N	10W	U	.00		4/07/89	257	422	391	268	295	348
5B	5	30N	10W	U	.00		11/08/89	345	333	388	172	233	295
A 5D	5	30N	10W	U	.00		4/07/89	249	392	322	298	274	373
6M	33	31N	10W	U	.00		9/08/89	319	460	96	333	321	101
A 6F	33	31N	10W	U	.00		3/07/89	275	380	583	280	266	633
7A	34	31N	10W	U	.00		9/08/89	333	435	283	394	304	566
A 7F	34	31N	10W	U	.00		4/07/89	264	362	419	290	253	549

LATEST ANNUAL DELIVERABILITY TESTS BLANCO MESAVERDE (PRORATED GAS)

WELL	S	T	R	ST	AF	SIP	DATE	M	PC	Q	PN	PD	D
8M	3	30N	10W	U	.00		9/26/86	275	490	278	350	343	287
A 8C	3	30N	10W	U	.00		3/01/89	290	444	847	334	311	955
ATLANTIC D COM D LS													
5K	2	30N	10W	U	.00		8/21/86	307	500	174	309	350	151
A 5F	2	30N	10W	U	.00		3/01/89	319	431	874	361	302	1298
BACA GAS COM A													
1H	26	29N	10W	U	.00		5/08/89	296	582	421	326	407	337
A 1F	26	29N	10W	U	.00								
BARNES LS													
1F	24	32N	11W	U	.00		6/08/89	220	489	165	333	342	159
A 1B	24	32N	11W	U	.00		6/26/89	267	254	263	94	177	178
A 2D	22	32N	11W	U	.00		1/10/89	299	468	122	314	328	115
R 2L	22	32N	11W	U	.00		6/08/89	225	431	404	404	302	808
3H	27	32N	11W	U	.00		6/08/89	225	289	620	133	202	448
A 3D	27	32N	11W	U	.00		1/10/89	318	411	526	349	288	826
4A	26	32N	11W	U	.00		8/08/89	354	391	252	344	273	465
A 4C	26	32N	11W	U	.00		8/11/86	380	361	1004	326	257	1960
6A	23	32N	11W	U	.00		7/09/89	348	369	1214	366	298	2432
A 6I	23	32N	11W	U	.00		6/08/89	306	338	274	93	237	175
A 7C	23	32N	11W	U	.00		9/08/89	347	345	575	258	244	633
R 7K	23	32N	11W	U	.00		5/09/89	297	400	1019	355	280	1964
8K	26	32N	11W	U	.00		12/08/89	364	378	475	362	264	950
A 8I	26	32N	11W	U	.00		3/07/89	342	365	710	143	256	486
9M	13	32N	11W	U	.00		12/08/89	352	497	150	356	347	156
A 9J	13	32N	11W	U	.00		12/08/89	357	436	358	395	305	791
BARRETT LS													
1K	19	31N	9W	U	.00		6/26/89	283	416	569	165	286	394
A 1C	19	31N	9W	U	.00		6/08/89	194	404	664	148	284	446
2B	19	31N	9W	U	.00		4/05/84	339	543	90	352	380	82
A 2I	19	31N	9W	U	.00		1/09/87	294	380	708	219	266	577
3K	20	31N	9W	U	.00		9/08/89	336	419	1049	183	293	744
A 3I	20	31N	9W	U	.00		9/08/89	344	450	721	163	314	486
4A	20	31N	9W	U	.00		10/08/89	355	426	660	405	298	1320
A 4P	20	31N	9W	U	.00		6/22/89	337	405	555	164	283	384
BASSETT B													
1E	33	30N	10W	U	.00		2/28/89	267	1062	1096	311	743	708
BASSETT COM													
M 1L	33	30N	10W	U	.00		2/28/89	260	484	148	269	339	118
BLANCO COM I													
1G	2	30N	11W	U	.00		8/07/89	353	464	142	355	310	185
A 1P	2	30N	11W	U	.00		12/19/89	331	404	186	333	282	267
BLANCO COM Z													
1K	2	30N	11W	U	.00		7/07/89	311	458	150	332	320	159
BLANCO LS													
12A	36	28N	8W	U	.00		10/08/89	362	603	92	358	422	76
A 12D	36	28N	8W	U	.00		6/08/89	290	385	195	159	270	135
1C	1	27N	8W	M	1.00		11/04/82	73	223	19	75	178	10
BOLACK B LS													
1G	33	28N	8W	U	.00		12/08/89	359	533	235	356	373	221
A 1C	33	28N	8W	U	.00		12/08/89	367	394	701	188	275	516
3N	33	28N	8W	M	.92		6/26/86	372	469	272	377	328	358
4N	12	27N	8W	M	1.00		2/04/84	141	384	25	143	307	13
BOLACK C LS													
9M	28	27N	8W	M	1.00		10/08/89	334	504	86	364	352	90
10A	28	27N	8W	M	.98		6/11/86	353	492	107	355	344	112
11K	28	27N	8W	M	1.00		/02/78	255	294	34	256	235	46
12A	29	27N	8W	U	.00		8/07/89	370	567	51	394	396	50
A 12J	29	27N	8W	U	.00		11/28/89	384	548	57	401	383	61
13M	29	27N	8W	M	1.00		4/03/78	220	444	54	220	355	31
14B	30	27N	8W	U	.00		11/07/89	309	380	64	313	265	91
A 14I	30	27N	8W	U	.00		12/07/89	256	500	63	261	349	48
15A	33	27N	8W	U	.00		8/08/89	345	588	47	370	411	41
A 15O	33	27N	8W	U	.00		1/10/89	298	556	20	303	309	16
16A	33	27N	8W	U	.00		8/11/86	331	517	48	335	362	44
A 16I	33	27N	8W	U	.00		8/01/28	338	798	34	355	559	24
BOYD GAS COM													
1M	8	31N	10W	U	.00		12/07/89	351	442	287	391	309	552
A 1C	8	31N	10W	U	.00		12/07/89	326	414	249	393	289	498
BRUINGTON LS													
1J	6	30N	11W	M	.98		10/05/83	342	554	65	342	445	43
BUNCE COM													
1C	19	29N	10W	M	.00		2/01/84						
CALLOWAY LS													
2H	34	31N	11W	M	1.00		9/26/86	308	532	183	319	372	154

Formerly * Tenneco

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
GREAT LAKES EXHIBIT NO. 4
CASE NO. 10407

WELL S T R		JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC 1987	PROD MP	ACCUM
3L 430N10W	GAS	7669	6946	5519	4254	2443	5364	8347	4806	7294	6898	7463	7262	74265	3014635
	OIL		29	22	25	1	37	8	17	12	13	22	32	218	6031
A 3I 430N10W	GAS	712	1348	3039								3222	17522	25841	719365
	OIL			103									382	485	28302
	WAT														222
4K 530N10W	GAS	436	353	357	152	17	48	116	25	11	95	45	36	1691	655618
	OIL														128
A 4J 530N10W	GAS	6784	1178	3017								3023	16256	30258	1090206
	OIL			27									54	81	2973
	WAT														279
5B 530N10W	GAS	5553	5306	4901	4170	2660	2445	8944	4705	1224	7012	6434	4663	58017	3648006
	OIL		23	16	2	2	13	13	5	3	12	10	5	104	7013
A 5D 530N10W	GAS	8309	2229	2512								2651	16809	32510	684763
	OIL			55									74	129	2229
6M3331N10W	GAS	3660	3678	4334	2184	1862	788	5823	3534	1016	4611	3258	2712	37460	4238698
	OIL			11	1		7							19	10319
A 6F3331N10W	GAS	8479	1989	2109			1955					1847	21936	38315	1212712
	OIL			48									62	110	3962
	WAT														485
7A3431N10W	GAS	8231	8630	7967	3637	2450	5334	12272	7216	2506	8716	8400	7482	82841	5255548
	OIL	48	22	49	19	7	14	52	21	23	32	41	45	373	31788
	WAT														123
A 7F3431N10W	GAS	3269	2255	2709								2672	5854	16759	960309
	OIL			58									50	108	5688
	WAT														300
8M 330N10W	GAS	2753	7030	7213	1140	1768	3031	12728	9126	4172	7196	7355	7518	71030	3879301
	OIL	17	95	66	10	3	36	131	90	10	76	56	63	653	28052
A 8C 330N10W	GAS	12562	1100	3577								1023	10305	28567	1258749
	OIL		84	17				137					2	240	9444
	WAT														210
LEASE TOTAL	OIL	39	265	536	60	14	107	346	134	48	133	129	866	2747	168043
	GAS	92666	54600	64849	21546	13624	21898	65853	40620	19692	45995	61179	164394	666916	36996720
	WAT														3135
ATLANTIC D COM D LS															
5K 230N10W	GAS	2063	5001	4146	1722	1480	3509	3787	1593	1886	1913	1805	1534	30439	5751513
	OIL														19714
A 5F 230N10W	GAS	5337	1204	3130								3065	31977	44713	2014986
	OIL			42									70	112	7941
	WAT														985
LEASE TOTAL	OIL			42									70	112	27655
	GAS	7400	6205	7276	1722	1480	3509	3787	1593	1886	1913	4870	33511	75152	7766499
	WAT														985
BARNES LS															
1F2432N11W	GAS	4625	3749	3527	505		1403	7364	5188	867	4628	3288	3964	39108	2335567
A 1B2432N11W	GAS	9704	5960	7418	13153	16338	7829	1959	14561	6363	13084	11448	11143	118960	1120986
	OIL	50	64	23	98	27	57	15	79	45	104	90	76	728	5646
A 2D2232N11W	GAS	4097	630	3894	5871	3431	3709	782	5486	3491	3218	3483	3395	41467	646776
	OIL	20	1	14	17	8	13	3	16	20	4	27	32	175	12228
	WAT														76
R 2L2232N11W	GAS	12044	7040	8122	2193			17359	10372	1670	10732	8860	9291	87683	4162309
	OIL	20	32	8				56	18	1	3	25	18	181	6317
3H2732N11W	GAS	9404	9746	12560	3662		4395	16420	7462	3844	6975	7814	7205	89467	5842335
	OIL														9094
	WAT														202
A 3D2732N11W	GAS	6333	1439	11443	7489	5028	8833	2596	14573	11813	5718	6234	7381	88880	1360459
	OIL	9	7	34	11	3	6		4	5	3	14	17	113	2308
	WAT														118
4A2632N11W	GAS	3798	7825	8609	3547	1676	3035	12948	7661	8529	5130	6761	7636	77155	4882560
	OIL	10	3	33	15		8	15	3	65	15	17	26	210	9497
	WAT	20	6	66	30	4	16	29	6	130	30	34	52	423	635
A 4C2632N11W	GAS	10023	3627	16610	18254	17004	13495	3275	17973	15838	16592	14810	14052	161553	1405983
	OIL	33	3	51	8	13	5	1	6	18	7	47	72	264	2457
	WAT	55	5	114	22	8	2	10	30	12	78	120	441	985	
6A2532N11W	GAS	43901	24793	31403	23152		12551	75903	50335	15102	51531	43871	40434	412976	14152223
	OIL	69	4	2					33	60	47	92	62	369	8855
	WAT														211
A 6I2332N11W	GAS	3733	323	7164	3441	1629	2911	724	7288	11097	18089	14285	13695	84379	997035
	OIL	8								11	14	4	4	41	485
	WAT	27	6	18	10	31	21	1	31	38	47	12	13	275	764
A 7C2332N11W	GAS	7718	727	4197	81					28873	24595	18824	16492	101507	1688291
	OIL	12		2						12	26	42	38	132	3053
	WAT														96
8K2632N11W	GAS	5421	7421	4923	1829	758	4022	9897	4350	1983	4817	4155	5352	54928	4406509
	OIL	7	15	9	1	2	1	1	1		4	9	7	57	7574
	WAT														92
A 8I2632N11W	GAS	5403		2322					14904	15631	9209	9200	9390	66059	1516882
	OIL	1								50	5	35	32	123	4311
	WAT	2		12					54	111	120	78	71	339	1758
9M1332N11W	GAS	4099	3287	3674	581			4826	4241	664	4167	2571	2356	30466	2164841
	OIL														98
A 9J1332N11W	GAS	9148	9110	7096	9279	7026	5866	1764	12133	5062	8916	8616	10212	94228	1425383
	OIL	9	1	6	3		15	1	17	8	13	3	27	103	2190
	WAT	15	2	17	5	19	25	1	28	7	12	5	45	190	527
LEASE TOTAL	OIL	248	130	182	153	53	105	92	177	295	245	405	411	2496	63113
	GAS	139451	85677	132962	93037	52890	68049	155817	176527	130827	187401	164220	161998	1548856	48107339
	WAT	119	19	191	79	76	70	33	129	322	122	207	301	1668	5464
BARRETT LS															
1K1931N 9W	GAS	9566	8211	10068	3284	2323	3962	10037	6936	10873	4503	9175	10333	89271	5876206
	OIL	208	213	194	86	38	85	192	184	151	134	182	210	1877	69791
A 1C1931N 9W	GAS	2546	1662	2783	19134	20667	840		22226	19102	16731	19523	22483	147697	1781629
	OIL		147	66	370	458			346	450	373	362	522	3094	29292
	WAT														228
2D1931N 9W	GAS	3405	5612	4694	775			6698	4862	641	5297	3730	2882	38596	5024553
	OIL				2			1	2		2	1		8	42665
	WAT														93
A 2I1931N 9W	GAS	11564	2248	10364	9986	14147	15870	1920	20832	10212	24028	17460	19613	158244	1508184
	OIL	217	104	210	267	230	336	83	352	171	576	326	357	3269	28969
	WAT														166
3K2031N 9W	GAS	4557	6161	6089	2052		4777	5280	804	81	10101	21043	23582	84527	5948328
	OIL	152	150	231	19		69	46		3	303	738	597	2308	138474
A 3D2031N 9W	GAS	8205	6414	5179	10226	9864	7725	1865	14522	12997	9897	19509	18824	125232	1457858
	OIL	28	22	3	25	57	37	9	54	76	659	1204	1164	3338	9695
	WAT														79
4A2031N 9W	GAS	14639	9709	16309	1952			17370	16335	2910	15504	12676	14131	121575	4428844
	OIL	257	91	311	46			80	168	124	287	252	371	1907	94993
	WAT														223
A 4P2031N 9W	GAS	16491	7790	16561	20155	6928	14539	3619	24768	10775	18377	13462	22920	176385	1789353
	OIL	286	78	233	491	166	219	134	521	148	332	482	821	3911	33974
LEASE TOTAL	OIL	1148	805	1248	1306	949	746	545	1627	1123	2586	3547	4082	19712	447853
	GAS	70973	47867	72047	67604	53929	47713	46789	111285	67591	104438	116578	134773	941527	27814953
	WAT														781
BASSETT B															
1E3330N10W	GAS	878	2914	4218	3647	3422	3069	627	5010	4228	3535	3179	3085	37812	337509
	OIL			5	2									7	1253
BASSETT COM															
M 1L3330N10W	GAS	3901	1177	4020	3420	4747	3655	632	4569	4511	4181	1031	3281	35125	326160
	OIL	2	7	11	5	18	13			3		2		61	638
	WAT	5	70	78	41	211	489	8						902	909
BLANCO COM 1															
1G 230N11W	GAS	2973	1596	1959	656	439	1318	3258	1912	689	2768	1719	1982	21269	1024882
	OIL	6					1							7	1268
	WAT									11	31			42	42
A 1P 230N11W	GAS	3239	26	527						10434	29	207	7592	22054	243960
	OIL	8		12									5	25	734
	WAT	11											59	61	61
LEASE TOTAL	OIL	14		12			1							32	2002
	GAS	6212	1622	2486	656	439	1318	3258	1912	11123	2797	1926	9574	43323	1268842
	WAT	11								11	31		50	103	103
BLANCO COM 2															
1K 230N11W	GAS	2316	2535	1900	2594	598			2149	69		25	2434	14620	1117367
BLANCO LS															
12A3628N 8W	GAS					77		1901	1611	1714	1463	1552	1557	9875	902176
	OIL														548
	WAT														82
A 12D3628N 8W	GAS	3439	5077		3245		7517	10	8831	1832	2021	2465	4396	38833	77525
	OIL	18	19		28		38		40	15		24	10	192	649
	WAT	7	7		11		15	2	15	6	30	9	4	106	281
14G 127N 8W	GAS	562	460	401	179	559	356	539	413	291	484	306	348	4898	213838
	OIL		4	2		12	1		6	1	2	3		31	478
	WAT														46
LEASE TOTAL	OIL	18	23	2	28	12	39		46	16	2	27	10	223	1675
	GAS	4001	5537	401	3424	636	7873	2450	10855	3837	3968	4323	6301	53806	1193539
	WAT	7	7		11		15	2	15	6	30	9	4	106	409
BOLACK B LS															
1G3328N 8W	GAS	8577	9316	9904	4435			15026	9817	1105	550	4668	6715	70113	1371650
	OIL	19	80	39	42			91	64	11		53	25	424	1987
	WAT	18	76	38	40			87	61	10	12	50	24	416	822
A 1C3328N 8W	GAS	16137	10756	12605	21459	19938	15230	4940	9289	11789	18242	21245	18261	179891	3345538
	OIL	139	61	75	199	124	85		30	51	120	109	132	1125	2339
	WAT	2780	1213	1500	3970	2489	1700	3	600	1028	2400	2186	2645	22514	46794
3N3328N 8W	GAS	5771	4659	5840	2463	4131	4972	9771	5451	2966	5721	6324	4915	62984	3600865
	OIL	20	6	49		7	25	27	16			50	7	207	14383
	WAT				30					90	93			213	222
4N1227N 8W	GAS	1472	1582	1325	761	513	646	668	581	665	802	762	651	10428	464093
	OIL					3		2						5	2064
	WAT														61
LEASE TOTAL	OIL	176	147	163	241	134	110	120	110	62	120	212	164	1761	20773
	GAS	31957	26313	29674	29118	24582	20848	30405	25138	16525	25315	32999	30542	323416	5771166
	WAT	2798	1289	1538	4040	2489	1700	90	661	1128	2505	2236	2669	23143	47899
BOLACK C LS															
9H3127N 8W	GAS	126	3		541	1302	1708	4071	4823	4006	3767	2597	2325	25269	1991298
	OIL	8	2		19	40	52	60	58	52	40	41	49	421	25022
10A2827N 8W	GAS	1707	1792	1372	759	885	1973	2177	1637	1144	1073	1642	1638	17799	1617185
	OIL	6	2				2	1	5	6	2	7	2	33	5645
	WAT														203

WELL S T R		JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	1988 PROD	MP	ACCUM
A 1C1328N 8W	GAS	18190	19619	16444	10278	17590	2541			28252	17323	1290	18843	150370		484908
	OIL	108	152	84	54	37	53			90	110	3	80	771		3110
	WAT	2160	3042	1688	1080	740	1060			1808	2200	61	1600	15439		62233
* 3N3328N 8W	GAS	4513	6273	4442	5122	5328	4202	1028	1840	1212	7033	1		40994		3641879
	OIL	28	48	24	22			3	4					121		14504
	WAT					93	78			54	93	3		321		543
4N1227N 8W	GAS	685	576	862	794	1197	961	876	633	842	752	6		8184		472277
	OIL		1	14	3	3								21		2085
	WAT															61
LEASE TOTAL	OIL	146	294	173	137	56	53	27	4	121	110	3	80	1204		21977
	GAS	30410	34569	27805	22811	27198	8573	7029	2473	37859	25108	1297	18843	243975		6015141
	WAT	2170	3138	1737	1135	848	1150	23		1892	2293	64	1600	16050		63949
BOLACK C LS																
9H3127N 8W	GAS	4357	2470	3284	1675	2704	2011	1265	3638	1481	2568	26		25479		2016777
	OIL	52	40	34	63	40	74	13	60	26	44			446		25468
10A2827N 8W	GAS	2089	947	1981	1576	409	666	1327	1255	900	628			11778		1628883
	OIL	10	33	1	2	10	3		6	1				66		5711
	WAT															203
11K2827N 8W	GAS	718	373	612	590	179	726	521	535	75	721			5050		695598
	OIL	16	1	8	1		19	1			5	1		52		4333
	WAT															160
12A2927N 8W	GAS	1978	1185	1519	1692	1028	974	1584	1514	316	1277	6		13073		1334543
	OIL	25	1	1	1	4	39	3	6		1	2		83		7801
	WAT															164
A 12J2927N 8W	GAS	126		539	680	1181	1004	1008	367	22	1516	564	356	7363		12844
	OIL	45			72	70	45	40	15		17	20	40	364		886
	WAT	321		300	515	500	321	286	107	170	118	143	286	3067		6698
13M2927N 8W	GAS	1259	201	729	477	266	566	22	2963	1540	223			8246		815074
	OIL	2				5			31	34	18			90		8756
14B3027N 8W	GAS	1022	273	686	238	321	477		177	403	149	1		3738		746529
	OIL								11	5	2			18		5651
	WAT	31	29	31	22	27	30	15	3	1	1	1		191		231
A 14I3027N 8W	GAS	3469	901	2905	1766	2351	3074	1593	2862	2428	976	2269	1010	25604		1133349
	OIL	31	1	45	49	59	44	11	36	53	40	4	7	380		2304
	WAT	47		28	28	24	30	19	36	34	33	5	8	292		727
15L3327N 8W	GAS	2594	1725	1060	462	507	635	632	219	111	802	3		8750		541542
	OIL	1		4	9	2	10		1			25		52		4691
	WAT	3	29	8	18	4	20	31						113		491
A 15D3327N 8W	GAS	573	782	64	53	290	1122	868	548	45	1421	753	1135	7654		26542
	OIL		45	20	42	45	3	25	15	25	13	15	40	288		1203
16A3327N 8W	GAS	750	580	710	290	756	725		332	39	748	1		4931		470907
	OIL		12	4	1		5					3		25		2428
	WAT	31	40	13	3	31	17	31	31	3	31	10		241		635
A 16I3327N 8W	GAS	765	150	336	102			543	76					1972		19859
	OIL	18	59	92	24			11	5					209		1649
	WAT	6	20	31	8			4	2					71		651
LEASE TOTAL	OIL	200	192	209	264	230	247	104	186	144	140	70	87	2073		70881
	GAS	19700	9587	14425	9601	9992	11980	9363	14486	7360	11020	3623	2501	123638		8422447
	WAT	439	118	411	594	586	418	386	179	208	183	159	294	3975		10160
BRUINGTON LS																
3I 630N11W	GAS	1243	1141	231		2424	1371	242					2040	8692		668605
	OIL															48
BUNCE CON																
1C1929N10W	GAS	LAST PROD. DATE 04/85													S	2100
	OIL															333
CALLOWAY LS																
2H3431N11W	GAS	2104	1274	603	9	1226	1143	1621	3130	1750	3171	12	2018	18061		1180663
	OIL		1				6						16	23		1391
	WAT															384
CASE LS																
1N 531N11W	GAS	1957	2742	2121	1449	1926	1731	2171	1947	2342	960		4	19350		1676047
	OIL															1329
A 1D 531N11W	GAS	13890	12751	11311	8104	16185	12532	10423	11491	14341	14802	1345	10593	137768		1384395
	OIL	58	64	64	61	58	76	29	39	87	52	27	40	655		5277
	WAT															2886
2M 831N11W	GAS	2010	1087	2101	1670	2480	3517	1996	3165	2575	3508	48		24157		2875269
	OIL															3308
	WAT															316
A 2F 831N11W	GAS	7325	6402	6056	1789	4730	5077	3610	6526	6581	6869	5608	6578	67151		856534
	OIL	46	31	1	24	8	12	12	7	36	14	21	44	256		5103
	WAT															164
3M1731N11W	GAS	3298	2737	1920	814	3635	6650	6162	5242	4854	4675	40		40027		1016206
	OIL		31	3	5									39		1578
A 3E1731N11W	GAS	9339	7576	10090	3981	10333	9824	11110	12080	10444	10770	8870	8437	112854		1596636
	OIL	57	12	32	21	27	60	14	78	50	38	39	32	460		6305
4D1831N11W	GAS	2243	1766	1513	1300	1670	1188	768	1355	1836	572			14211		908979
	OIL															208
A 4H1831N11W	GAS	9539	8620	7580			628	2799		3153	1523	605	5989	40436		919063
	OIL	49	39	48			8				3		18	165		3071
6A 531N11W	GAS	2827	1645	3137	1118	1457	2619	3896	3307	2268	3407	33		25714		2535445
	OIL	13	1	3		1								18		5417
A 6I 531N11W	GAS	191	17	86	82	77							30	483		697203
	OIL	3												3		2554
LEASE TOTAL	OIL	226	178	148	109	99	156	55	124	173	107	87	134	1596		34150
	GAS	52619	45343	45915	20307	42493	43766	42935	45113	48394	47086	16549	31631	482151		14465737
	WAT															766
COLDIRON COM A																
M 1F 230N11W	GAS	3875	2728			5157	4048			6156	5823	31	4124	31942		233884
	OIL															231
	WAT	16	15											31		98
DAUM LS																
3L3228N 9W	GAS	1256	1458	1188	757	1173	1279	11	1836	1437	1653	16		12064		953160
	OIL															2012
4B3228N 9W	GAS	2266	2034	2493	1243	1823	2571	5		3630		1	33	16099		1923690
	OIL	16	13	11	5	6	4			14				69		10939
M 5D3228N 9W	GAS	3893	2252	125	2593	2828	21			4459	2795	367	621	19954		983877
	OIL	18	33	1	1	36	1			20	42	2		154		729
	WAT	55	38	3	21	60	1			39	84	6		307		852
LEASE TOTAL	OIL	34	46	12	6	42	5			34	42	2		223		13680
	GAS	7415	5744	3806	4593	5824	3871	16	1836	9526	4448	384	654	48117		2975227
	WAT	55	38	3	21	60	1			39	84	6		307		852
DAWSON A																
1N 427N 8W	GAS	2423	2282				461	1019	60				498	6743		580412
	OIL	67	74											141		6231
	WAT	25	23											48		440
M 1D 427N 8W	GAS	3655	2335	3036	1945	4542	3733	3679	3430	3000	3800	361	5362	39078		436247
	OIL	8		44	7		2	5	1					67		3962
	WAT			108	20	31	25	15	4					203		457
LEASE TOTAL	OIL	75	74	44	7		2	5	1					208		10193
	GAS	6278	4617	3036	1945	4542	4194	4698	3490	3000	3800	361	5860	45821		1016659
	WAT	25	23	108	20	31	25	15	4					251		897
DAWSON FEDERAL																
1D2627N 8W	GAS	735	1623	415										2773S		880495
	OIL	9												9		4742
	WAT															199
M 1N2627N 8W	GAS	3845	4708	7469	958					8258	531			25769		630780
	OIL	18		43	5					15	12			93		3544
	WAT	28	29	85	9					31	7			189		848
LEASE TOTAL	OIL	27		43	5					15	12			102		8286
	GAS	4580	6331	7884	958					8258	531			28542		1511275
	WAT	28	29	85	9					31	7			189		1047
DAWSON LS																
1L3031N 8W	GAS		3881	11013	280	8398	9249	5303	7579	3459			12270	61432		5432539
	OIL		15	74	6	35	46	10	37	18			74	315		13504
A 1C3131N 8W	GAS	LAST PROD. DATE 03/87													S	479011
	OIL															2472
LEASE TOTAL	OIL		15	74	6	35	46	10	37	18			74	315		15976
	GAS		3881	11013	280	8398	9249	5303	7579	3459			12270	61432		5911550
DAY A LS																
1A1729N 8W	GAS	5123	3101	6562	2460	3695	2890	6660	3485	2834	5906	643	2057	45416		3718928
	OIL			67	3	6								76		16420
	WAT															683
A 1P1729N 8W	GAS		1059	2463	606	20	915	1445	510	18	31		2198	9265		979784
	OIL			33									10	43		8616
	WAT		13	39	21	27	26	29	31	16	28		3	203		1734
2H 729N 8W	GAS	4563	5510	4355	1215	1727	424	6598	1972	2047	5300	104		33815		5387794
	OIL	4	3								27			34		32676
	WAT															564
A 2P 729N 8W	GAS	1175	521	514	172			649					3187	6218		679415
	OIL		7											7		2807
	WAT															758
3B 829N 8W	GAS	LAST PROD. DATE 10/87													S	4124795
	OIL															12273
A 3D 829N 8W	GAS	4378	4755	4742	1612	3851	1602	651	5548	4119	5317	3661	4944	45172		1254730
	OIL		115	3	10	9	7		9	13	31	4	12	213		6397
	WAT	62	66	29	6	5	4		5	7	18	2	7	211		1019
4M 829N 8W	GAS	4024	3207	3610	658	187	2679	1369	166	547				16447		3929930
	OIL	36	10	12	9				11					78		14373
	WAT	45	13	14	11	31	24	24	14	30				205		1699
A 4D 829N 8W	GAS	15131	19395	14136	12204	15752	12268	13533	4861	18260	7168	4758	12749	132755		1634144
	OIL	61	20	52	61	102	120	69	67	58	79	21	74	804		12152
	WAT	32	11	27	43	54	63	36	36	31	42	11	39	425		1697
5A1829N 8W	GAS	4598	3715	39	676			247		33	34			9342		4430632
	OIL															15411
	WAT															323

SUMMARY WELL DATA
GREAT LAKES CHEMICAL CORP.
BLANCO-MESAVERDE GAS POOL

Lease	Del. Test Date	Del.	Del. Test Date	Del.
Graham Lease				
Well No. 1-A Sec. 4-27N-8W 990 FNL 990 FEL	6/11/84	277	6/25/91	266
Well No. 1A-P Sec. 4-27N-8W 880 FSL 790 FEL	6/11/84	194	6/25/91	159
Graham Wells No. 1 and 1A are on a multiwell unit and have an acreage factor of 1				
Well No. 3-J Sec. 3-27N-8W 1450 FSL 1830 FEL	6/20/84	246	3/25/91	86
A single well with an acreage factor of 0.5				
Hammond Lease				
Well No. 55-B Sec. 26-27N-8W 990 FNL 1523 FEL	6/11/84	113	6/25/91	122
Well No. 55A-I Sec. 26-27N-8W 1850 FSL 935 FEL	6/11/84	168	6/25/91	92
Hammond Wells No. 55 and 55A are on a multiwell unit and have an acreage factor of 1				
Well No. 5-F Sec. 35-27N-8W 1840 FNL 1750 FWL	7/17/84	157	3/25/91	93
A single well with an acreage factor of 0.5				

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
GREAT LAKES EXHIBIT NO. 5
CASE NO. 10407

UNIT STATUS AS OF 9/30/91
UNDER THREE SCENARIOS

Wells/Units	Zero Deliverability to 4/1/87	OCD District Method	Retroactive Deliverability
Graham #1 and 1A	<117,513>	<7,793>	67,515 UP
	Note: Begin year <116,243> with total new allowable 76,794		
Graham #3	< 23,408>	884 UP	8,466 UP
	Note: Begin year < 31,262> with total new allowable 24,114		
Hammond #55 and 55A	< 2,952>	25,089 UP	70,438 UP
Hammond #5	< 13,451>	3 UP	14,196 UP
	Note: Remaining 6 months allowable 12,828		

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
GREAT LAKES EXHIBIT NO. 6
CASE NO. 10407

CALCULATION OF STATUS FOR PRORATION
YEAR 1991-1992 (April 1991)
0 DEL. FROM 4/1/87 to TEST FILING

Graham #1 & 1A

Status to March 31, 1990	(95,558)
Total U Prod. 4/90 to 4/91	10,077
Beginning Status 4/1/91	* (85,481)

* Equals overproduction that must be made up by shut-in this year

1990-1991 overproduction that must be made up in 1991-1992 in addition to the above equals (30,762)

Wells had an additional (14,162) of overproduction from 4/1/91 to 6/30/91

Total overproduction to be made up in 1991-1992 equals <116,243>

Total allowable for 1991-1992 equals only 76,794

Graham #3

Status to March 31, 1990	(24,292)
Total U Prod. 4/90 to 4/91	6,318
Beginning Status 4/1/91	* (17,974)

* Equals overproduction that must be made up by shut-in this year

1990-1991 overproduction that must be made up in 1991-1992 in addition to the above equals (13,288)

Total overproduction to be made up in 1991-1992 equals <31,262>

Total allowable for 1991-1992 equals only 24,114

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
GREAT LAKES EXHIBIT NO. 7
CASE NO. 10407

ZERO DELIVERABILITY FROM 4-1-87 OPTION

Allowable, Production and Status Great Lakes Chemical Corp Wells

Year/Mo	Allowable	Graham Lease Prod #1	Prod # Ai	Total Production	Monthly Over/Under	Year O/U Prod Status	Cumulative Status
1987							
Jan							
Feb							
Mar							32,776
Apr	2,226	5,808	4,008	9,816	(7,590)		
May	8,807	3,985	3,983	7,968	839		
Jun	1,260	7,308	3,458	10,766	(9,506)		
Jul	1,260	10,056	3,587	13,643	(12,383)		
Aug	1,580	3,208	3,208	6,416	(4,836)		
Sep	2,918	6,278	3,692	9,970	(7,052)		
Oct	2,311	4,528	3,920	8,448	(6,137)		
Nov	2,545	3,472	2,136	5,608	(3,063)		
Dec	2,785	6,341	2,900	9,241	(6,456)		

Year/Mo	Allowable	Production	Monthly Over/Under	Year O/U Prod Status	Cumulative Status
1988					ALL U PROD MADE UP
Jan	3,219	7,097	(3,878)		
Feb	787	9,177	(8,390)		
Mar	1,420	6,796	(5,376)	(73,828)	(41,052)
Apr	1,170	2,572	(1,402)		
May	1,576	9,209	(7,633)		
Jun	726	9,465	(8,739)		
Jul	1,510	10,557	(9,047)		
Aug	1,418	9,242	(7,824)		
Sep	1,514	5,406	(3,892)		
Oct	1,685	8,570	(6,885)		
Nov	1,830	8,704	(6,874)		
Dec	1,402	2,625	(1,223)		

Year/Mo	Allowable	Production	Monthly Over/Under	Year O/U Prod Status	Cumulative Status
1989					
Jan	1,924	2,379	(455)		
Feb	1,781	4,119	(2,338)		
Mar	1,782	3,055	(1,273)	(57,585)	(98,637)
Apr	1,688	0	1,688		
May	1,769	0	1,769		
Jun	1,604	0	1,604		
Jul	1,352	0	1,352		
Aug	1,354	0	1,354		
Sep	1,810	0	1,810		
Oct	2,152	0	2,152		
Nov	2,011	0	2,011		
Dec	2,190	1,663	527		

Year/Mo	Allowable	Graham # 3 Production	Monthly Over/Under	Year O/U Prod Status	Cumulative Status
1987					
Jan					
Feb					
Mar					(10,770)
Apr	1,113	2,396	(1,283)		
May	4,404	2,521	1,883		
Jun	630	2,435	(1,805)		
Jul	630	2,846	(2,216)		
Aug	790	7,681	(6,891)		
Sep	1,459	2,318	(859)		
Oct	1,156	1,154	2		
Nov	1,273	1,842	(570)		
Dec	1,393	1,477	(85)		

Year/Mo	Allowable	Graham # 3 Production	Monthly Over/Under	Year O/U Prod Status	Cumulative Status
1988					
Jan	1,610	0	1,610		
Feb	394	3,693	(3,300)		
Mar	710	2,649	(1,939)	(15,453)	(26,223)
Apr	585	1,908	(1,323)		
May	788	2,633	(1,845)		
Jun	363	2,133	(1,770)		
Jul	755	2,015	(1,260)		
Aug	709	1,908	(1,199)		
Sep	757	1,911	(1,154)		
Oct	843	1,924	(1,082)		
Nov	915	1,549	(634)		
Dec	701	2,443	(1,742)		

Year/Mo	Allowable	Graham # 3 Production	Monthly Over/Under	Year O/U Prod Status	Cumulative Status
1989					
Jan	962	1,480	(518)		
Feb	891	0	891		
Mar	891	0	891	(10,745)	(36,968)
Apr	844	0	844		
May	885	0	885		
Jun	802	0	802		
Jul	676	0	676		
Aug	677	0	677		
Sep	905	0	905		
Oct	1,076	0	1,076		
Nov	1,006	0	1,006		
Dec	1,095	0	1,095		

Year/Mo 1990	Allowable	Graham Lease Prod #1	Prod # A1	Production	Monthly Over/Under	Year O/U Prod	Status	Cumulative Status SUM FROM
Jan	3,042	12,215	0	12,215	(9,173)			4-1-88 TO
Feb	3,515	8,287	0	8,287	(4,772)			3-31-90
Mar	2,865	108	0	108	2,757	3,079		(95,558)
Apr	2,063	0	0	0	2,063			
May	2,910	0	0	0	2,910			
Jun	4,404	4,154	3,209	7,363	(2,959)			
Jul	4,068	5,619	2,125	7,744	(3,676)			
Aug	2,602	4,714	2,627	7,341	(4,739)			
Sep	2,461	4,167	3,312	7,479	(5,018)			
Oct	3,548	5,493	3,276	8,769	(5,221)			
Nov	3,781	5,813	2,574	8,387	(4,606)			
Dec	3,515	6,326	1,732	8,058	(4,543)			

Year/Mo 1991	Allowable			Production	Monthly Over/Under	Year O/U Prod	Status	Cumulative Status
Jan	4,610	4,500	0	4,500	110	(30,762)		
Feb	3,333	1,472	217	1,689	1,644	10,077		
Mar	3,350	0	0	0	3,350	(20,685)		
								(116,243)*
Apr	2,817	3,515	4,988	8,503	(5,686)			
May	2,817	3,727	5,276	9,003	(6,186)			
Jun	3,837	2,070	4,057	6,127	(2,290)			
Jul	7,917	3,198	800	3,998	3,919			
Aug	7,917	1,224	2,293	3,517	4,400			
Sep	7,917	0	3,344	3,344	4,573			
Oct	8,462			0	8,462			
Nov	8,462			0	8,462			
Dec	8,462			0	8,462			

GTLK1 Zero deliverability from 4-1-87 calculations

* 85,481 OVERAGE NOT MADE UP IN 1990-91
30,762 OVERAGE FROM 1990-91
116,243 OVERAGE AT 4-1-91 TO BE MADE UP

TOTAL 1991-92 ALLOWABLE = 76,794
INSUFFICIENT TO MAKE UP OVERAGE

Year/Mo 1990	Allowable	Graham # 3 Production	Monthly Over/Under	Year O/U Prod	Status	Cumulative Status SUM FROM
Jan	1,521	0	1,521			4-1-87 TO
Feb	1,758	0	1,758			3-31-90
Mar	1,433	0	1,433	12,676		(24,292)
Apr	1,032	0	1,032			
May	1,455	0	1,455			
Jun	2,202	1,515	687			
Jul	2,034	2,529	(495)			
Aug	1,301	2,910	(1,609)			
Sep	1,231	3,133	(1,903)			
Oct	1,774	2,667	(893)			
Nov	1,891	592	1,299			
Dec	1,758	3,098	(1,341)			

Year/Mo 1991	Allowable	Graham # 3 Production	Monthly Over/Under	Year O/U Prod	Status	Cumulative Status
Jan	2,305	3,034	(729)	(13,288)		
Feb	1,667	1,635	32	6,318		
Mar	1,813	0	1,813	(6,970)		
						(31,262)**
Apr	1,925	468	1,457			
May	1,925	0	1,925			
Jun	1,925	0	1,925			
Jul	1,925	0	1,925			
Aug	1,925	305	1,620			
Sep	1,925	2,923	(998)			
Oct	2,094		2,094			
Nov	2,094		2,094			
Dec	2,094		2,094			

** 17,974 OVERAGE NOT MADE UP IN 1990-91
13,288 OVERAGE FROM 1990-91
31,262 OVERAGE AT 4-1-91 TO BE MADE UP

TOTAL 1991-92 ALLOWABLE = 24,114
INSUFFICIENT TO MAKE UP OVERAGE

CALCULATION OF STATUS FOR PRORATION
YEAR 1991-1992 (April 1991)
0 DEL. FROM 4/1/87 to TEST FILING

Hammond #55 A55	
Carried Underage Mar. 87	53,627
Made up Underage 4-87 to 4-88	28,989
Underage not made up and Cancelled	24,638
Net status to Mar. 31, 1990	(28,041)
Total U-Prod. 4/90 to 4/91	15,717
Beginning Status 4/1/91 *	(12,324)

* Equals overproduction that must be made up by shut-in this year

1990-1991 overproduction that must be made up in addition to the above equals (3,716)

Total overproduction to be made up in 1991-1992 equals <16,040>

Total allowable for 1991-1992 equals 59,932

The unit had a net 13,088 underproduction from 4/1/91 through 9/30/91

Hammond #5	
Carried Underage Mar. 87	8,932
All made up in 1987-1988	
Net status to Mar. 31, 1990	(19,712)
Total U Prod. 4/90 to 4/91	8,781
Beginning Status 4/1/91 *	(10,931)

* Equals over production that must be made up by shut-in this year

1990-1991 overproduction that must be made up in addition to the above equals (10,154)

Total overproduction to be made up in 1991-1992 equals <21,085>

Total allowable for 1991-1992 equals 24,633

Through September, 1991, the unit had a net 7,634 underproduction

ZERO DELIVERABILITY FROM 4-1-87 OPTION

Allowable, Production and Status Great Lakes Chemical Corp Wells

Year/Mo	Allowable	Hammond Prod #55	Prod # A55	Total Production	Monthly Over/Under	Year O/U Prod Status	Cumulative Status
1987							
Jan							
Feb							
Mar							53,627
Apr	2,226	1,828	3,705	5,533	(3,307)		
May	8,807	2,145	2,635	4,780	4,027		
Jun	1,260	1,292	2,973	4,265	(3,005)		
Jul	1,260	3,550	4,031	7,581	(6,321)		
Aug	1,580	1,616	2,702	4,318	(2,738)		
Sep	2,918	1,618	3,390	5,008	(2,090)		
Oct	2,311	1,054	1,392	2,446	(135)		
Nov	2,545	1,970	1,494	3,464	(919)		
Dec	2,785	1,960	4,233	6,193	(3,408)		
1988							
Jan	3,219	0	4,042	4,042	(823)	(28,989)	
Feb	787	3,378	2,047	5,425	(4,638)	4,027	
Mar	1,420	1,371	1,654	3,025	(1,605)	(24,962)	4,027
Apr	1,170	0	2,845	2,845	(1,675)		
May	1,576	0	2,179	2,179	(603)		
Jun	726	0	3,443	3,443	(2,717)		
Jul	1,510	0	3,200	3,200	(1,690)		
Aug	1,418	0	1,595	1,595	(177)		
Sep	1,514	0	1,268	1,268	246		
Oct	1,685	2,797	3,416	6,213	(4,528)		
Nov	1,830	93	3,367	3,460	(1,630)		
Dec	1,402	0	3,353	3,353	(1,951)		
1989							
Jan	1,924	0	2,340	2,340	(416)		
Feb	1,781	0	2,290	2,290	(509)		
Mar	1,782	0	0	0	1,782	(13,868)	(9,841)
Apr	1,688	0	0	0	1,688		
May	1,769	0	0	0	1,769		
Jun	1,604	0	0	0	1,604		
Jul	1,352	2,458	1,852	4,310	(2,958)		
Aug	1,354	2,258	0	2,258	(904)		
Sep	1,810	2,156	4,066	6,222	(4,412)		
Oct	2,152	1,323	3,017	4,340	(2,188)		
Nov	2,011	2,096	0	2,096	(85)		
Dec	2,190	3,422	4,105	7,527	(5,337)		

Year/Mo	Allowable	Hammond #5 Production	Monthly Over/Under	Year O/U Prod Status	Cumulative Status
1987					
Jan					
Feb					
Mar					8,932
Apr	1,113	2,753	(1,640)		
May	4,404	2,797	1,607		
Jun	630	2,697	(2,067)		
Jul	630	3,218	(2,588)		
Aug	790	2,544	(1,754)		
Sep	1,459	3,165	(1,706)		
Oct	1,156	2,811	(1,656)		
Nov	1,273	2,277	(1,005)		
Dec	1,393	2,519	(1,127)		
1988					
Jan	1,610	2,395	(786)		
Feb	394	715	(322)		
Mar	710	0	710	(12,332)	(3,400)
Apr	585	2,914	(2,329)		
May	788	3,186	(2,398)		
Jun	363	2,401	(2,038)		
Jul	755	2,486	(1,731)		
Aug	709	2,467	(1,758)		
Sep	757	986	(229)		
Oct	843	3,489	(2,647)		
Nov	915	2,952	(2,037)		
Dec	701	2,716	(2,015)		
1989					
Jan	962	3,821	(2,859)		
Feb	891	2,493	(1,603)		
Mar	891	0	891	(20,752)	(24,152)
Apr	844	340	504		
May	885	993	(109)		
Jun	802	0	802		
Jul	676	0	676		
Aug	677	0	677		
Sep	905	0	905		
Oct	1,076	0	1,076		
Nov	1,006	0	1,006		
Dec	1,095	2,686	(1,591)		

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
55			Hammond			Monthly	Year	O/U	Cumulative			Hammond #5	Monthly	Year	O/U	Cumulative
56	Year/Mo	Allowable	Prod #55	Prod # A55	Production	Over/Under	Prod	Status	Status	Year/Mo	Allowable	Production	Over/Under	Prod	Status	Status
57	1990								SUM FROM	1990						SUM FROM
58	Jan	3,042	1,412	3,585	4,997	(1,955)			4-1-88 TO	Jan	1,521	3,603	(2,082)			4-1-88 TO
59	Feb	3,515	3,527	3,816	7,343	(3,828)			3-31-90	Feb	1,758	614	1,144			3-31-90
60	Mar	2,865	2,631	1,828	4,459	(1,594)	(18,200)	(28,041)		Mar	1,433	0	1,433	4,440	(19,712)	
61																
62	Apr	2,063	971	0	971	1,092				Apr	1,032	4,973	(3,942)			
63	May	2,910	875	3,149	4,024	(1,114)				May	1,455	36	1,419			
64	Jun	4,404	1,049	1,629	2,678	1,726				Jun	2,202	0	2,202			
65	Jul	4,068	326	2,233	2,559	1,509				Jul	2,034	0	2,034			
66	Aug	2,602	1,585	0	1,585	1,017				Aug	1,301	0	1,301			
67	Sep	2,461	1,520	1,778	3,298	(837)				Sep	1,231	4,493	(3,263)			
68	Oct	3,548	967	1,939	2,906	642				Oct	1,774	2,465	(691)			
69	Nov	3,781	207	1,855	2,062	1,719				Nov	1,891	2,590	(700)			
70	Dec	3,515	0	3,245	3,245	270				Dec	1,758	1,997	(240)			
71																
72						Monthly	Year	O/U	Cumulative			Hammond #5	Monthly	Year	O/U	Cumulative
73	Year/Mo	Allowable			Production	Over/Under	Prod	Status	Status	Year/Mo	Allowable	Production	Over/Under	Prod	Status	Status
74	1991									1991						
75	Jan	4,610	0	218	218	4,392	(3,716)			Jan	2,305	3,539	(1,234)	(10,154)		
76	Feb	3,333	2,376	2,722	5,098	(1,765)	15,717			Feb	1,667	1,750	(84)	8,781		
77	Mar	3,350	0	0	0	3,350	12,001			Mar	1,825	0	1,825	(1,371)		
78									(16,040)*							(21,085)**
79	Apr	2,817	3,211	2,846	6,057	(3,240)				Apr	1,967	0	1,967			
80	May	2,817	33	1,153	1,186	1,631				May	1,967	0	1,967			
81	Jun	3,331	0	847	847	2,484				Jun	1,967	0	1,967			
82	Jul	5,385	0	528	528	4,857				Jul	1,967	0	1,967			
83	Aug	5,385	0	2,176	2,176	3,209				Aug	1,967	0	1,967			
84	Sep	5,385	0	1,238	1,238	4,147				Sep	1,967	4,168	(2,201)			
85	Oct	5,802			0	5,802				Oct	2,138		2,138			
86	Nov	5,802			0	5,802				Nov	2,138		2,138			
87	Dec	5,802			0	5,802				Dec	2,138		2,138			
88																
89																
90	GTLK2 Zero deliverability from 4-1-87 calculations															
91																
92	* 12,324 OVERAGE NOT MADE UP UN 1990-91									** 10,931 OVERAGE NOT MADE UP UN 1990-91						
93	3,716 OVERAGE FROM 1990-91									10,154 OVERAGE FROM 1990-91						
94	16,040 AT 4-1-91 TO BE MADE UP									21,085 AT 4-1-91 TO BE MADE UP						
95	•															
96	TOTAL 1991-92 ALLOWABLE = 59,932									TOTAL 1991-92 ALLOWABLE = 24,633						
97	13,088 NET UNDERPRODUCTION THRU 9-3-91									7,634 NET UNDERPRODUCTION THRU 9-3-91						
98																

CALCULATION STATUS FOR PRORATION
YEAR 1991-1992 (April 1991)
OCD DISTRICT METHOD

Graham #1 & 1A		Graham #3	
Status to March 31, 1991	<20,685>	Status to March 31, 1991	<6,970>
Underproduction through September	12,892	Underproduction through September	8,852
Remaining Overage	< 7,793>	Unit Underproduced	884

Hammond #55 & 55A		Hammond #5	
Status to March 31, 1991	12,001 UP	Status to March 31, 1991	<7,631>
		Underproduction through September	9,835
Through September, 1991 3,240 Underproduction made up and 16,328 new Underproduction accumulated		Unit Underproduced	3

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
GREAT LAKES EXHIBIT NO. 8
CASE NO. 10407

OCD DISTRICT METHOD

Allowable, Production and Status Great Lakes Chemical Corp Wells

Year/Mo	Allowable	Graham Lease Prod #1	Prod # A1	Production	Monthly Over/Under	Year O/U Prod Status	Cumulative Status
1990							
Jan							
Feb							
Mar							Marginal
Apr	2,063	0	0	0	2,063		
May	2,910	0	0	0	2,910		
Jun	4,404	4,154	3,209	7,363	(2,959)		
Jul	4,068	5,619	2,125	7,744	(3,676)		
Aug	2,602	4,714	2,627	7,341	(4,739)		
Sep	2,461	4,167	3,312	7,479	(5,018)		
Oct	3,548	5,493	3,276	8,769	(5,221)		
Nov	3,781	5,813	2,574	8,387	(4,606)		
Dec	3,515	6,326	1,732	8,058	(4,543)		
1991							
Jan	4,610	4,500	0	4,500	110		
Feb	3,333	1,472	217	1,689	1,644		
Mar	3,350	0	0	0	3,350	(20,685)	(20,685)
Apr	2,817	3,515	4,988	8,503	(5,686)		
May	2,817	3,727	5,276	9,003	(6,186)		
Jun	3,837	2,070	4,057	6,127	(2,290)		
Jul	7,917	3,198	800	3,998	3,919		
Aug	7,917	1,224	2,293	3,517	4,400		
Sep	7,917	0	3,344	3,344	4,573		
Oct	8,462			0	8,462		
Nov	8,462			0	8,462		
Dec	8,462			0	8,462		

GTLK1B

THROUGH SEPTEMBER (14,162) AND 12,892

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REMAINING OVERAGE TO BE MADE UP = 7,793

Year/Mo	Allowable	Graham # 3 Production	Monthly Over/Under	Year O/U Prod Status	Cumulative Status
1990					
Jan					
Feb					
Mar					Marginal
Apr	1,032	0	1,032		
May	1,455	0	1,455		
Jun	2,202	1,515	687		
Jul	2,034	2,529	(495)		
Aug	1,301	2,910	(1,609)		
Sep	1,231	3,133	(1,903)		
Oct	1,774	2,667	(893)		
Nov	1,891	592	1,299		
Dec	1,758	3,098	(1,341)		
1991					
Jan	2,305	3,034	(729)		
Feb	1,667	1,635	32		
Mar	1,813	0	1,813	(6,970)	(6,970)
Apr	1,925	468	1,457		
May	1,925	0	1,925		
Jun	1,925	0	1,925		
Jul	1,925	0	1,925		
Aug	1,925	305	1,620		
Sep	1,925	2,923	(998)		
Oct	2,094		2,094		
Nov	2,094		2,094		
Dec	2,094		2,094		

THROUGH SEPTEMBER (998) AND 8,852

ALL OVERAGE MADE UP

OCD DISTRICT METHOD

Allowable, Production and Status Great Lakes Chemical Corp Wells

Year/Mo	Allowable	Hammond Prod #55	Prod # A55	Production	Monthly Over/Under	Year O/U Prod	Status	Cumulative Status
1990								
Jan								
Feb								
Mar								Marginal
Apr	2,063	971	0	971	1,092			
May	2,910	875	3,149	4,024	(1,114)			
Jun	4,404	1,049	1,629	2,678	1,726			
Jul	4,068	326	2,233	2,559	1,509			
Aug	2,602	1,585	0	1,585	1,017			
Sep	2,461	1,520	1,778	3,298	(837)			
Oct	3,548	967	1,939	2,906	642			
Nov	3,781	207	1,855	2,062	1,719			
Dec	3,515	0	3,245	3,245	270			

Year/Mo	Allowable	Production	Monthly Over/Under	Year O/U Prod	Status	Cumulative Status
1991						
Jan	4,610	218	4,392			
Feb	3,333	5,098	(1,765)			
Mar	3,350	0	3,350	12,001		12,001
Apr	2,817	6,057	(3,240)			
May	2,817	1,186	1,631			
Jun	3,331	847	2,484			
Jul	5,385	528	4,857			
Aug	5,385	2,176	3,209			
Sep	5,385	1,238	4,147			
Oct	5,802	0	5,802			
Nov	5,802	0	5,802			
Dec	5,802	0	5,802			

GTLK28

HAMMONOD 55 WELLS REMAIN UNDERPRODUCED

Year/Mo	Allowable	Hammond #5 Production	Monthly Over/Under	Year O/U Prod	Status	Cumulative Status
1990						
Jan						
Feb						
Mar						(6,258)
Apr	1,032	4,973	(3,942)			
May	1,455	36	1,419			
Jun	2,202	0	2,202			
Jul	2,034	0	2,034			
Aug	1,301	0	1,301			
Sep	1,231	4,493	(3,263)			
Oct	1,774	2,465	(691)			
Nov	1,891	2,590	(700)			
Dec	1,758	1,997	(240)			

Year/Mo	Allowable	Hammond #5 Production	Monthly Over/Under	Year O/U Prod	Status	Cumulative Status
1991						
Jan	2,305	3,539	(1,234)	(10,154)		
Feb	1,667	1,750	(84)	8,781		
Mar	1,825	0	1,825	1,373		(7,631)*
Apr	1,967	0	1,967			
May	1,967	0	1,967			
Jun	1,967	0	1,967			
Jul	1,967	0	1,967			
Aug	1,967	0	1,967			
Sep	1,967	4,168	(2,201)			
Oct	2,138		2,138			
Nov	2,138		2,138			
Dec	2,138		2,138			

* 2,523 NET UNDERAGE AFTER OVERAGE MADE UP
COMBINED WITH 10,154 OVERAGE YIELDS
7,631 OVERAGE AT 4-1-91

THROUGH SEPTEMBER (2,201) AND 9,835, ALL OVERAGE MADE UP

CALCULATION OF STATUS FOR PRORATION
YEAR 1991 TESTS RETROACTIVE TO 4/1/87

Graham #1 & 1A

Carried Underage 3/31/87	32,776
Made up Underage 4/1/87 to 3/31/88	26,741
Underage not made up and cancelled	6,035
Carried Underage 3/31/88	30,469
Made up Underage 4/1/88 to 3/31/89	25,462
Underage not made up and cancelled	5,007
Carried Underage 3/31/89	12,436
Made up Underage 4/1/89 to 3/31/90	2,616
Underage not made up and cancelled	9,820
Carried Underage 3/31/90	56,552
Made up Underage 4/1/90 to 3/31/91	595
Underage not made up and cancelled	55,957
Carried Underage 4/1/91	54,505

Through September, 1991, only 1,672 Underage made up and 14,682 new underage accumulated

Graham #3

Carried Overage 3/31/91	<10,770>
All Underage and Overage rolled up to 3/31/90	<6,263>
Made up Overproduction 4/1/90 to 3/31/91	All
Carried Underage 3/31/91	612

Through September, 1991, All Underage was made up and the unit was 9,238 under produced

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
GREAT LAKES EXHIBIT NO. 9
CASE NO. 10407

1991 DELIVERABILITIES RETROACTIVE TO 4-1-87

Allowable, Production and Status Great Lakes Chemical Corp Wells

Year/Mo	Allowable	Graham Lease Prod #1	Prod # A1	Total Production	Monthly Over/Under	Year O/U Prod Status	Cumulative Status
1987							
Jan							
Feb							
Mar							32,776
Apr	8,363	5,808	4,008	9,816	(1,453)		
May	31,367	3,985	3,983	7,968	23,399		
Jun	4,484	7,308	3,458	10,766	(6,282)		
Jul	4,502	10,056	3,587	13,643	(9,141)		
Aug	5,675	3,208	3,208	6,416	(741)		
Sep	10,101	6,278	3,692	9,970	131		
Oct	7,926	4,528	3,920	8,448	(522)		
Nov	8,725	3,472	2,136	5,608	3,117		
Dec	9,421	6,341	2,900	9,241	180		
1988							
Jan	10,739	6,731	366	7,097	3,642	(26,741)	
Feb	2,628	6,436	2,741	9,177	(6,549)	30,469	
Mar	4,743	3,121	3,675	6,796	(2,053)	3,728	30,469
Apr	4,102	0	2,572	2,572	1,530		
May	5,370	6,021	3,188	9,209	(3,839)		
Jun	2,499	6,243	3,222	9,465	(6,966)		
Jul	5,254	6,899	3,658	10,557	(5,303)		
Aug	5,033	5,556	3,686	9,242	(4,209)		
Sep	5,298	3,271	2,135	5,406	(108)		
Oct	5,854	5,666	2,904	8,570	(2,716)		
Nov	6,383	5,808	2,896	8,704	(2,321)		
Dec	4,890	301	2,324	2,625	2,265		
1989							
Jan	6,355	408	1,971	2,379	3,976	(25,462)	
Feb	5,903	3,097	1,022	4,119	1,784	12,436	
Mar	5,936	3,055	0	3,055	2,881	(13,026)	12,436
Apr	5,666	0	0	0	5,666		
May	5,788	0	0	0	5,788		
Jun	5,275	0	0	0	5,275		
Jul	4,435	0	0	0	4,435		
Aug	4,446	0	0	0	4,446		
Sep	5,793	0	0	0	5,793		
Oct	6,890	0	0	0	6,890		
Nov	6,427	0	0	0	6,427		
Dec	6,994	1,663	0	1,663	5,331		

Year/Mo	Allowable	Graham # 3 Production	Monthly Over/Under	Year O/U Prod Status	Cumulative Status
1987					
Jan					
Feb					
Mar					(10,770)
Apr	1,734	2,396	(662)		
May	6,686	2,521	4,165		
Jun	956	2,435	(1,479)		
Jul	958	2,846	(1,888)		
Aug	1,204	7,681	(6,477)		
Sep	2,186	2,318	(132)		
Oct	1,724	1,154	570		
Nov	1,898	1,842	56		
Dec	2,064	1,477	587		
1988					
Jan	2,370	0	2,370		
Feb	580	3,693	(3,113)		
Mar	1,046	2,649	(1,603)	(7,606)	(18,376)
Apr	882	1,908	(1,026)		
May	1,172	2,633	(1,461)		
Jun	542	2,133	(1,591)		
Jul	1,134	2,015	(881)		
Aug	1,075	1,908	(833)		
Sep	1,140	1,911	(771)		
Oct	1,264	1,924	(660)		
Nov	1,376	1,549	(173)		
Dec	1,054	2,443	(1,389)		
1989					
Jan	1,410	1,480	(70)		
Feb	1,308	0	1,308		
Mar	1,311	0	1,311	(6,236)	(24,612)
Apr	1,246	0	1,246		
May	1,291	0	1,291		
Jun	1,173	0	1,173		
Jul	988	0	988		
Aug	990	0	990		
Sep	1,308	0	1,308		
Oct	1,555	0	1,555		
Nov	1,452	0	1,452		
Dec	1,581	0	1,581		

Year/Mo 1990	Allowable	Graham Lease Prod #1	Prod # A1	Production	Monthly Over/Under	Year Prod	O/U Status	Cumulative Status
Jan	9,599	12,215	0	12,215	(2,616)		(2,616)	
Feb	11,089	8,287	0	8,287	2,802		56,552	
Mar	9,039	108	0	108	8,931		59,168	56,552
Apr	6,506	0	0	0	6,506			
May	8,410	0	0	0	8,410			
Jun	12,772	4,154	3,209	7,363	5,409			
Jul	11,879	5,619	2,125	7,744	4,135			
Aug	7,598	4,714	2,627	7,341	257			
Sep	6,884	4,167	3,312	7,479	(595)			
Oct	10,046	5,493	3,276	8,769	1,277			
Nov	10,714	5,813	2,574	8,387	2,327			
Dec	9,959	6,326	1,732	8,058	1,901			

Year/Mo 1990	Allowable	Graham # 3 Production	Monthly Over/Under	Year Prod	O/U Status	Cumulative Status
Jan	2,184	0	2,184			SUM OVER/UNDER
Feb	2,524	0	2,524			3-31-87 TO
Mar	2,057	0	2,057	18,349		4-1-90
Apr	1,481	0	1,481			(6,263)
May	2,011	0	2,011			
Jun	3,049	1,515	1,534			
Jul	2,824	2,529	295			
Aug	1,806	2,910	(1,104)			
Sep	1,678	3,133	(1,455)			
Oct	2,431	2,667	(236)			
Nov	2,592	592	2,000			
Dec	2,409	3,098	(689)			

Year/Mo 1991	Allowable			Production	Monthly Over/Under	Year Prod	O/U Status	Cumulative Status
Jan	12,818	4,500	0	4,500	8,318		(595)	
Feb	9,429	1,472	217	1,689	7,740		54,505	
Mar	9,415	0	0	0	9,415		55,100	54,505
Apr	7,917	3,515	4,988	8,503	(586)			
May	7,917	3,727	5,276	9,003	(1,086)			
Jun	7,917	2,070	4,057	6,127	1,790			
Jul	7,917	3,198	800	3,998	3,919			
Aug	7,917	1,224	2,293	3,517	4,400			
Sep	7,917	0	3,344	3,344	4,573			
Oct	8,462			0	8,462			
Nov	8,462			0	8,462			
Dec	8,462			0	8,462			

Year/Mo 1991	Allowable	Graham # 3 Production	Monthly Over/Under	Year Prod	O/U Status	Cumulative Status
Jan	3,135	3,034	101		(3,484)	
Feb	2,283	1,635	648		10,359	
Mar	2,289	0	2,289		6,875	612 *
Apr	1,925	468	1,457			
May	1,925	0	1,925			
Jun	1,925	0	1,925			
Jul	1,925	0	1,925			
Aug	1,925	305	1,620			
Sep	1,925	2,923	(998)			
Oct	2,094		2,094			
Nov	2,094		2,094			
Dec	2,094		2,094			

GTLK1A

THROUGH SEPTEMBER ONLY 1,672 UNDERAGE MADE UP
AND 14,682 NEW UNDERAGE ACCUMULATED

* 4,096 NET UNDERAGE AFTER OVERAGE MADE UP
COMBINED WITH 3,484 OVERAGE YIELDS
612 UNDERAGE AT 4-1-91

WELL IS UNDERPRODUCED THROUGH SEPTEMBER

CALCULATION OF STATUS FOR PRORATION
YEAR 1991 TESTS RETROACTIVE TO 4/1/87

Hammond #55 & 55A		Hammond #5	
Carried Underage 3/31/87	53,627	Carried Underage 3/31/87	8,932
Made up Underage 4/1/87 to 3/31/88	10,742	Made up Underage 4/1/87 to 3/31/88	All
Underage not made up and cancelled	42,885		
Carried Underage 3/31/88	24,830	Carried Underage 3/31/88	5,087
Made up Underage 4/1/88 to 3/31/89	4,647	Made up Underage 4/1/88 to 3/31/89	All
Underage not made up and cancelled	20,183		
Carried Underage 3/31/89	13,214	Carried Overage 3/31/89	<10,788>
Made up Underage 4/1/89 to 3/31/90	6,745	Made up Overage 4/1/89 to 3/31/90	All
Underage not made up and cancelled	6,469		
Carried Underage 3/31/90	16,787	Carried overage 3/31/91	<212>
Made up Underage 4/1/90 to 3/31/91	-0-	Made up Overage 4/1/90 to 3/31/91	All
Underage not made up and cancelled	16,787		
Carried Underage 3/31/91	50,160	Carried Underage 3/31/91	6,562

Through September, 1991
only 672 Underage made up and
20,950 new Underage accumulated

Through September, 1991
only 2,201 Underage made up and
9,835 new Underage accumulated

1991 DELIVERABILITIES RETROACTIVE TO 4-1-87

Allowable, Production and Status Great Lakes Chemical Corp Wells

Year/Mo	Allowable	Hammond Prod #55	Prod # A55	Total Production	Monthly Over/Under	Year O/U Prod Status	Cumulative Status
1987							
Jan							
Feb							
Mar							53,627
Apr	5,316	1,828	3,705	5,533	(217)		
May	20,166	2,145	2,635	4,780	15,386		
Jun	2,883	1,292	2,973	4,265	(1,382)		
Jul	2,892	3,550	4,031	7,581	(4,689)		
Aug	3,642	1,616	2,702	4,318	(676)		
Sep	6,535	1,618	3,390	5,008	1,527		
Oct	5,138	1,054	1,392	2,446	2,692		
Nov	5,657	1,970	1,494	3,464	2,193		
Dec	6,126	1,960	4,233	6,193	(67)		
1988							
Jan	7,006	0	4,042	4,042	2,964	(10,742)	
Feb	1,714	3,378	2,047	5,425	(3,711)	24,830	
Mar	3,093	1,371	1,654	3,025	68	14,088	24,830
Apr	2,646	0	2,845	2,845	(199)		
May	3,486	0	2,179	2,179	1,307		
Jun	1,619	0	3,443	3,443	(1,824)		
Jul	3,395	0	3,200	3,200	195		
Aug	3,238	0	1,595	1,595	1,643		
Sep	3,419	0	1,268	1,268	2,151		
Oct	3,784	2,797	3,416	6,213	(2,429)		
Nov	4,122	93	3,367	3,460	662		
Dec	3,158	0	3,353	3,353	(195)		
1989							
Jan	4,155	0	2,340	2,340	1,815	(4,647)	
Feb	3,857	0	2,290	2,290	1,567	13,214	
• Mar	3,874	0	0	0	3,874	8,567	13,214
Apr	3,691	0	0	0	3,691		
May	3,793	0	0	0	3,793		
Jun	3,452	0	0	0	3,452		
Jul	2,904	2,458	1,852	4,310	(1,406)		
Aug	2,911	2,258	0	2,258	653		
Sep	3,815	2,156	4,066	6,222	(2,407)		
Oct	4,538	1,323	3,017	4,340	198		
Nov	4,235	2,096	0	2,096	2,139		
Dec	4,609	3,422	4,105	7,527	(2,918)		

Year/Mo	Allowable	Hammond #5 Production	Monthly Over/Under	Year O/U Prod Status	Cumulative Status
1987					
Jan					
Feb					
Mar					8,932
Apr	1,784	2,753	(969)		
May	6,872	2,797	4,075		
Jun	983	2,697	(1,714)		
Jul	985	3,218	(2,233)		
Aug	1,238	2,544	(1,306)		
Sep	2,245	3,165	(920)		
Oct	1,770	2,811	(1,041)		
Nov	1,949	2,277	(328)		
Dec	2,119	2,519	(400)		
1988					(9,031)
Jan	2,432	2,395	37	(9,031)	8,932
Feb	595	715	(120)	5,186	(99)
Mar	1,074	0	1,074	(3,845)	5,087 5,186
Apr	906	2,914	(2,008)		5,087
May	1,203	3,186	(1,983)		
Jun	557	2,401	(1,844)		
Jul	1,165	2,486	(1,321)		
Aug	1,105	2,467	(1,362)		
Sep	1,171	986	185		
Oct	1,299	3,489	(2,190)		
Nov	1,413	2,952	(1,539)		
Dec	1,083	2,716	(1,633)		
1989					(17,405)
Jan	1,447	3,821	(2,374)	(17,405)	5,087
Feb	1,342	2,493	(1,151)	1,530	(12,318)
Mar	1,345	0	1,345	(15,875) (10,788)	1,530 (10,788)
Apr	1,279	340	939		
May	1,324	993	331		
Jun	1,204	0	1,204		
Jul	1,013	0	1,013		
Aug	1,015	0	1,015		
Sep	1,341	0	1,341		
Oct	1,594	0	1,594		
Nov	1,489	0	1,489		
Dec	1,621	2,686	(1,065)		

Year/Mo	Allowable	Hammond Prod #55	Prod # A55	Production	Monthly Over/Under	Year Prod	O/U Status	Cumulative Status
1990								
Jan	6,343	1,412	3,585	4,997	1,346		(6,745)	
Feb	7,329	3,527	3,816	7,343	(14)		16,787	
Mar	5,974	2,631	1,828	4,459	1,515		10,042	16,787
Apr	4,300	971	0	971	3,329			
May	5,679	875	3,149	4,024	1,655			
Jun	8,617	1,049	1,629	2,678	5,939			
Jul	8,001	326	2,233	2,559	5,442			
Aug	5,117	1,585	0	1,585	3,532			
Sep	4,688	1,520	1,778	3,298	1,390			
Oct	6,820	967	1,939	2,906	3,914			
Nov	7,272	207	1,855	2,062	5,210			
Dec	6,760	0	3,245	3,245	3,515			

Year/Mo	Allowable	Production	Monthly Over/Under	Year Prod	O/U Status	Cumulative Status
1991						
Jan	8,743	0	218	218	8,525			
Feb	6,403	2,376	2,722	5,098	1,305			
Mar	6,404	0	0	0	6,404		50,160	50,160
Apr	5,385	3,211	2,846	6,057	(672)			
May	5,385	33	1,153	1,186	4,199			
Jun	5,385	0	847	847	4,538			
Jul	5,385	0	528	528	4,857			
Aug	5,385	0	2,176	2,176	3,209			
Sep	5,385	0	1,238	1,238	4,147			
Oct	5,802			0	5,802			
Nov	5,802			0	5,802			
Dec	5,902			0	5,902			

GTLK2A Retroactive Deliverability

THROUGH SEPTEMBER 1991 ONLY 672 UNDERAGE MADE UP
AND 20,950 NEW UNDERAGE ACCUMULATED

Year/Mo	Allowable	Hammond #5 Production	Monthly Over/Under	Year Prod	O/U Status	Cumulative Status	13,006
1990							(10,788)
Jan	2,238	3,603	(1,365)		(2,430)		2,218
Feb	2,586	614	1,972		13,006		2,218
Mar	2,108	0	2,108		10,576	(212)	(2,430)
Apr	1,518	4,973	(3,455)				(212)
May	2,057	36	2,021				
Jun	3,118	0	3,118				
Jul	2,889	0	2,889				
Aug	1,848	0	1,848				
Sep	1,714	4,493	(2,779)				
Oct	2,485	2,465	20				
Nov	2,649	2,590	59				
Dec	2,463	1,997	466				

Year/Mo	Allowable	Hammond #5 Production	Monthly Over/Under	Year Prod	O/U Status	Cumulative Status	13,344
1991							(212)
Jan	3,203	3,539	(336)		(6,570)		13,132
Feb	2,334	1,750	584		13,344		13,132
Mar	2,339	0	2,339		6,774	6,562	(6,570)
Apr	1,967	0	1,967				6,562
May	1,967	0	1,967				
Jun	1,967	0	1,967				
Jul	1,967	0	1,967				
Aug	1,967	0	1,967				
Sep	1,967	4,168	(2,201)				
Oct	2,138		2,138				
Nov	2,138		2,138				
Dec	2,138		2,138				

THROUGH SEPTEMBER 1991 ONLY 2,201 UNDERAGE MADE UP
AND 9,835 NEW UNDERAGE ACCUMULATED

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Blanco Mesaverde Gas Pool Allowable Factors *** Calculation of Allowables From 4-1-87 Using 1991 Deliverabilities																
2																	
3	Year	F1	F2	Graham 1-1A	Graham 3		Allowable	Allowable		Year	F1	F2	Hammond 55-55A	Hammond 5		Allowable	Allowable
4	Mo	Factor	Factor	Del	Del		Graham 1-1A	Graham 3		Mo	Factor	Factor	Del	Del		Hammond 55-55A	Hammond 5
5	1987									1987							
6	Apr	2,226	14.4407	425	86		8,363	1,734		Apr	2,226	14.4407	214	93		5,316	1,784
7	May	8,807	53.0814	425	86		31,367	6,686		May	8,807	53.0814	214	93		20,166	6,872
8	Jun	1,260	7.5850	425	86		4,484	956		Jun	1,260	7.5850	214	93		2,883	983
9	Jul	1,260	7.6283	425	86		4,502	958		Jul	1,260	7.6283	214	93		2,892	985
10	Aug	1,580	9.6349	425	86		5,675	1,204		Aug	1,580	9.6349	214	93		3,642	1,238
11	Sep	2,918	16.9013	425	86		10,101	2,186		Sep	2,918	16.9013	214	93		6,535	2,245
12	Oct	2,311	13.2113	425	86		7,926	1,724		Oct	2,311	13.2113	214	93		5,138	1,770
13	Nov	2,545	14.5404	425	86		8,725	1,898		Nov	2,545	14.5404	214	93		5,657	1,949
14	Dec	2,785	15.6134	425	86		9,421	2,064		Dec	2,785	15.6134	214	93		6,126	2,119
15	1988									1988							
16	Jan	3,219	17.6947	425	86		10,739	2,370		Jan	3,219	17.6947	214	93		7,006	2,432
17	Feb	787	4.3325	425	86		2,628	580		Feb	787	4.3325	214	93		1,714	595
18	Mar	1,420	7.8180	425	86		4,743	1,046		Mar	1,420	7.8180	214	93		3,093	1,074
19	Apr	1,170	6.8979	425	86		4,102	882		Apr	1,170	6.8979	214	93		2,646	906
20	May	1,576	8.9262	425	86		5,370	1,172		May	1,576	8.9262	214	93		3,486	1,203
21	Jun	726	4.1715	425	86		2,499	542		Jun	726	4.1715	214	93		1,619	557
22	Jul	1,510	8.8093	425	86		5,254	1,134		Jul	1,510	8.8093	214	93		3,395	1,165
23	Aug	1,418	8.5066	425	86		5,033	1,075		Aug	1,418	8.5066	214	93		3,238	1,105
24	Sep	1,514	8.9040	425	86		5,298	1,140		Sep	1,514	8.9040	214	93		3,419	1,171
25	Oct	1,685	9.8103	425	86		5,854	1,264		Oct	1,685	9.8103	214	93		3,784	1,299
26	Nov	1,830	10.7119	425	86		6,383	1,376		Nov	1,830	10.7119	214	93		4,122	1,413
27	Dec	1,402	8.2077	425	86		4,890	1,054		Dec	1,402	8.2077	214	93		3,158	1,083
28	1989									1989							
29	Jan	1,924	10.4251	425	86		6,355	1,410		Jan	1,924	10.4251	214	93		4,155	1,447
30	Feb	1,781	9.6999	425	86		5,903	1,308		Feb	1,781	9.6999	214	93		3,857	1,342
31	Mar	1,782	9.7739	425	86		5,936	1,311		Mar	1,782	9.7739	214	93		3,874	1,345
32	Apr	1,688	9.3591	425	86		5,666	1,246		Apr	1,688	9.3591	214	93		3,691	1,279
33	May	1,769	9.4570	425	86		5,788	1,291		May	1,769	9.4570	214	93		3,793	1,324
34	Jun	1,604	8.6366	425	86		5,275	1,173		Jun	1,604	8.6366	214	93		3,452	1,204
35	Jul	1,352	7.2530	425	86		4,435	988		Jul	1,352	7.2530	214	93		2,904	1,013
36	Aug	1,354	7.2747	425	86		4,446	990		Aug	1,354	7.2747	214	93		2,911	1,015
37	Sep	1,810	9.3709	425	86		5,793	1,308		Sep	1,810	9.3709	214	93		3,815	1,341
38	Oct	2,152	11.1488	425	86		6,890	1,555		Oct	2,152	11.1488	214	93		4,538	1,594
39	Nov	2,011	10.3907	425	86		6,427	1,452		Nov	2,011	10.3907	214	93		4,235	1,489
40	Dec	2,190	11.3034	425	86		6,994	1,581		Dec	2,190	11.3034	214	93		4,609	1,621
41	1990									1990							
42	Jan	3,042	15.4273	425	86		9,599	2,184		Jan	3,042	15.4273	214	93		6,343	2,238
43	*Feb	3,515	17.8211	425	86		11,089	2,524		Feb	3,515	17.8211	214	93		7,329	2,586
44	Mar	2,865	14.5281	425	86		9,039	2,057		Mar	2,865	14.5281	214	93		5,974	2,108
45	Apr	2,063	10.4543	425	86		6,506	1,481		Apr	2,063	10.4543	214	93		4,300	1,518
46	May	2,910	12.9412	425	86		8,410	2,011		May	2,910	12.9412	214	93		5,679	2,057
47	Jun	4,404	19.6891	425	86		12,772	3,049		Jun	4,404	19.6891	214	93		8,617	3,118
48	Jul	4,068	18.3799	425	86		11,879	2,824		Jul	4,068	18.3799	214	93		8,001	2,889
49	Aug	2,602	11.7546	425	86		7,598	1,806		Aug	2,602	11.7546	214	93		5,117	1,848
50	Sep	2,461	10.4060	425	86		6,884	1,678		Sep	2,461	10.4060	214	93		4,688	1,714
51	Oct	3,548	15.2885	425	86		10,046	2,431		Oct	3,548	15.2885	214	93		6,820	2,485
52	Nov	3,781	16.3121	425	86		10,714	2,592		Nov	3,781	16.3121	214	93		7,272	2,649
53	Dec	3,515	15.1624	425	86		9,959	2,409		Dec	3,515	15.1624	214	93		6,760	2,463

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
GREAT LAKES EXHIBIT NO. 10
CASE NO. 10401

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
57	Blanco Mesaverde Gas Pool Allowable Factors *** Calculation of Allowables From 4-1-87 Using 1991 Deliverabilities																
58	1991									1991							
59	Jan	4,610	19.3127	425	86		12,818	3,135		Jan	4,610	19.3127	214	93		8,743	3,203
60	Feb	3,333	14.3444	425	86		9,429	2,283		Feb	3,333	14.3444	214	93		6,403	2,334
61	Mar	3,350	14.2714	425	86		9,415	2,289		Mar	3,350	14.2714	214	93		6,404	2,339
62	Apr	2,817	12.0000	425	86		7,917	1,925		Apr	2,817	12.0000	214	93		5,385	1,967
63	May	2,817	12.0000	425	86		7,917	1,925		May	2,817	12.0000	214	93		5,385	1,967
64	Jun	2,817	12.0000	425	86		7,917	1,925		Jun	2,817	12.0000	214	93		5,385	1,967
65	Jul	2,817	12.0000	425	86		7,917	1,925		Jul	2,817	12.0000	214	93		5,385	1,967
66	Aug	2,817	12.0000	425	86		7,917	1,925		Aug	2,817	12.0000	214	93		5,385	1,967
67	Sep	2,817	12.0000	425	86		7,917	1,925		Sep	2,817	12.0000	214	93		5,385	1,967
68	Oct	3,103	12.6100	425	86		8,462	2,094		Oct	3,103	12.6100	214	93		5,802	2,138
69	Nov	3,103	12.6100	425	86		8,462	2,094		Nov	3,103	12.6100	214	93		5,802	2,138
70	Dec	3,103	12.6100	425	86		8,462	2,094		Dec	3,103	12.6100	214	93		5,802	2,138
71																	
72	*** Note: F2s have been rounded to four significant numbers to the right of the decimal.																
73																	
74																	
75	GTLK3																
76																	

IMPACT OF ZERO DELIVERABILITY ALLOWABLES FROM 4-1-90

	MONTHS ALLOW RESTRICTED	OCD METHOD ALLOW	RETRO-ACTIVE METHOD ALLOW	ALLOW GAIN OR (LOSS)	PRODUCTION FIRST 9 MO 1990	PRODUCTION FIRST 9 MO 1991	PRODUCTION GAIN OR (LOSS)	UNIT STATUS 9-30-91
GRAHAM 1 & 1A	15	50,116	140,181	(90,065)	50,537	40,681	(9,856)	(7,793)
GRAHAM 3	12	20,463	27,988	(7,525)	10,087	8,365	(1,722)	884
HAMMOND 55 & 55A	15	49,610	94,959	(45,349)	31,914	17,798	(14,116)	12,001
HAMMOND 5	12	20,475	28,617	(8,142)	13,719	9,457	(4,262)	3
TOTALS		140,664	291,745	(151,081)	106,257	76,301	(29,956)	5,095

PRODUCTION LOSS NOT AVAILABLE FOR MAKE UP (24,861)

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
GREAT LAKES EXHIBIT NO. 11
CASE NO. 10407