NM2 - ____6_____

GENERAL CORRESPONDENCE YEAR(S):

___2017 - Present____

Jones, Brad A., EMNRD

From:	Jones, Brad A., EMNRD
Sent:	Wednesday, September 13, 2017 2:16 PM
To:	'Grubbs, Richard T'
Cc:	Smith, Cory, EMNRD
Subject:	RE: Hallwood Evaporation Pond

Richard,

Based upon information provided in the unsigned draft closure report, dated August 1, 2017, that was emailed to Cory Smith (OCD District III) on August 14, 2017, OCD has determined that the revised closure/post-closure care plan, dated May 23, 2008, which OCD granted approval on May 28, 2008 was implemented but not completed as proposed and approved. OCD hereby grants an conditional approval of the proposed revised closure activities provided in the August 22, 2017 email below, with the following conditions:

1. Chevron shall excavate and remove any visual surface contamination within and surrounding the unlined earthen evaporation pond footprint. The contaminated soils shall be disposed at an OCD approved facility;
2. Chevron shall compare all sample results to the facility background results to determine if a release has occurred. If there has been a release, Chevron shall comply with the applicable requirements of 19.15.29 NMAC and/or 19.15.30 NMAC;
3. Pursuant to 19.15.36.18.D NMAC, Chevron analyze each sample for "TPH, BTEX, metals and other inorganics listed in Subsections A and B of 20.6.2.3103 NMAC…";
4. Due to Chevron not being able to confirm if the leak detection sump was removed during the 2008 closure activities performed, Chevron shall demonstrate by photo documentation, during the proposed excavation activities, the removal of the sump and associated piping or remove if discovered;
5. Chevron shall ensure that any backfilling and contouring at the facility shall be completed in a manner to prevent erosion and ponding of water;
6. Chevron shall demonstrate compliance to 19.15.35.9 NMAC and the exemptions specified in 20.3.14.1403 NMAC, regarding the disposal of regulated NORM, for any additional PVC piping that may be generated from the removal of the leak detection sump;
7. Chevron shall submit request for approval pursuant to 19.15.35.8.B.(2) and (3) NMAC and obtain OCD approval for any waste generated that will require off-site disposal into a solid waste landfill permitted by the NMED Solid Waste Bureau;
8. Chevron shall demonstrate that all flowlines/pipelines within the facility boundary that have been utilized to transport oilfield waste have been removed. If all flowlines/pipelines within the facility boundary that have been utilized to transport oilfield waste have not been removed, Chevron shall demonstrate compliance to the applicable requirements of 19.15.35.10 NMAC, regarding non-retrieved flowlines and pipelines;
9. Chevron shall demonstrate compliance to the re-vegetation requirements of 19.15.36.18.A.(6) NMAC, upon completion of closure:
10. Chevron shall submit a closure report at the completion of the closure activities that summarizes the closure activities, including but not limited to, a final closure facility contour map; identification of material disposal facilities; sampling results; backfilling and contouring activities; re-vegetation seeding mixture and application rates; and photo documentation; and
11. Pursuant to 19.15.36.18.E NMAC, the post-closure care period for a landfarm or pond or pit shall be three years if the Chevron has achieved clean closure. During that period Chevron or another responsible entity shall regularly inspect and maintain required re-vegetation. If there has been a release

to the vadose zone or to ground water, then the Chevron shall comply with the applicable requirements of 19.15.30 NMAC and 19.15.29 NMAC.

If you have any questions regarding this matter, please contact me.

Sincerely,

Brad A. Jones

Brad A. Jones
Environmental Engineer
EMNRD Oil Conservation Division
1220 S. Saint Francis Drive
Santa Fe, New Mexico 87505
E-mail: brad.a.jones@state.nm.us
Office: (505) 476-3487
Fax: (505) 476-3462

From: Grubbs, Richard T [mailto:rtgrubbs@chevron.com]
Sent: Tuesday, August 22, 2017 1:27 PM
To: Jones, Brad A., EMNRD <brad.a.jones@state.nm.us>
Cc: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Subject: Hallwood Evaporation Pond

Brad

As directed in your phone call of August 17, 2017 regarding sampling activities proposed by Envirotech required to meet the remaining Hallwood Evaporation Pond closure plan, we are providing the attached Sampling Plan as requested to address the specific locations that sampling will be conducted per the proposed sampling plan. Chevron submitted the proposed plan to NMOCD (Cory Smith) for review and concurrence prior to proceeding.

- Envirotech proposed five additional sampling locations in alignment with the original closure plan where equipment and routine activities had been located (excluding the area below the liner which had already been sampled). Based on your phone call, we understand NMOCD needs each general location sample to be based on five composited samples laid out on a grid. I have attached a grid depicting the location where Envirotech will sample 5 areas within each grid and composite the samples for each location on the 1) North West, 2) North, 3) North-East, 4) East, and 5) South sides of the boundary of the pond parameter. Please see the attached sampling plan as requested as reference and clarification for sampling. Samples will be taken at a depth of 6" and composited for each grid location.
- In your phone call you indicated that the closure report and previous sampling did not document the removal of the leak detection sump, and NMOCD would like to verify that the soil below the sump bottom meets the closure criteria. The bottom of the pond was El. 5873.2 and the ground elevation where the sump was located was most nearly El. 5880. Drain pipe was laid at 1% slope, therefore the bottom of the sump would be most nearly El. 5871.2. I am proposing a back-hoe trench be dug (approximately 4-ft x 18-inch trench 10-foot deep) at the sump location to take a grab soil sample. If discoloration is encountered during the dig additional delineation would be completed at the time.
- Lastly you indicated that not all the analytical parameters of Subsections A and B of NMAC 20.6.3103 would be required, but that you would specify what NMOCD needed analytical results for in a response to Chevron once you receive and review the sampling plan.

Hopefully this address your request. Once you provide your guidance, we will notify Cory Smith with our schedule and mobilize equipment to complete the remaining sampling requirements of the closure plan.

Regards,

Richard T. Grubbs, P.E.
Senior Process Engineer
Water and Waste Advisor

Chevron NA Exploration & Production Company
MCBU
760 Horizon Drive
Grand Junction, CO 81506
Office: 970-257-6021
Cell: 913-748-9815
rtgrubbs@chevron.com

Jones, Brad A., EMNRD

From: Grubbs, Richard T <rtgrubbs@chevron.com>
Sent: Tuesday, August 22, 2017 1:27 PM
To: Jones, Brad A., EMNRD
Cc: Smith, Cory, EMNRD
Subject: Hallwood Evaporation Pond
Attachments: Sampling Plan.jpg

Brad

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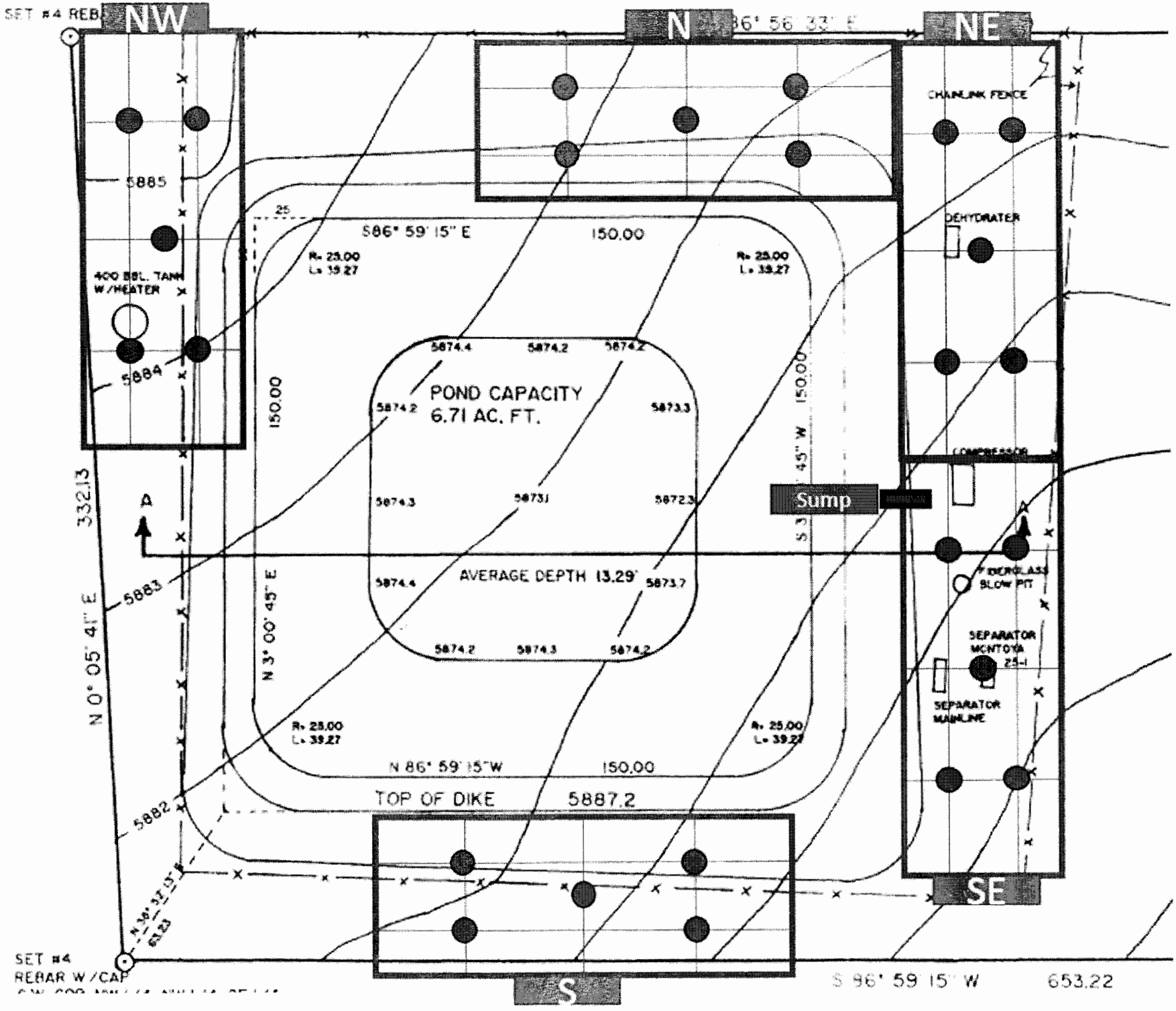
Hopefully this address your request. Once you provide your guidance, we will notify Cory Smith with our schedule and mobilize equipment to complete the remaining sampling requirements of the closure plan.

Regards,

Richard T. Grubbs, P.E.
Senior Process Engineer
Water and Waste Advisor

Chevron NA Exploration & Production Company
MCBU
760 Horizon Drive
Grand Junction, CO 81506
Office: 970-257-6021
Cell: 913-748-9815
rtgrubbs@chevron.com


SET #4 REBAR
NW
N
N 86° 56' 33" E
NE
CHAINLINK FENCE
DEHYDRATER
400 BBL. TANK W/HEATER
5885
5884
5883
5882
25
S86° 59' 15" E
150.00
R= 25.00
L= 39.27
POND CAPACITY
6.71 AC. FT.
5874.4
5874.2
5874.2
5874.2
5873.3
5874.3
5873.1
5872.3
5874.4
AVERAGE DEPTH 13.29'
5873.7
5874.2
5874.3
5874.2
150.00
N 3° 00' 45" E
S 3° 00' 45" W 150.00
Sump
COMPRESSOR
A
A
332.13
N 0° 05' 41" E
FIBERGLASS BLOW PIT
SEPARATOR MONTOYA 25-1
SEPARATOR MAINLINE
N 86° 59' 15" W
150.00
TOP OF DIKE
5887.2
N 36° 32' 13" E
63.23
SET #4
REBAR W/CAP
S
S 86° 59' 15" W
653.22
SE

Jones, Brad A., EMNRD

From: Smith, Cory, EMNRD
Sent: Thursday, August 17, 2017 11:49 AM
To: Jones, Brad A., EMNRD
Cc: Powell, Brandon, EMNRD; Fields, Vanessa, EMNRD
Subject: FW: Hallwood Evaporation Pond
Attachments: Proposal - Chevron Hallwood Evaporation Pond.pdf; Draft Hallwood Evapoation lagoon Closure Report.pdf

Brad,

Please see the below email in regards to Chevrons Hallwood Pond.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Grubbs, Richard T [mailto:rtgrubbs@chevron.com]
Sent: Monday, August 14, 2017 2:16 PM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Subject: FW: Hallwood Evaporation Pond

Cory,

Per our telephone conversation last week, based on the review between the 2008 approved closure plan for the Hallwood evaporation pond and Enviotech's closure activities (as documented in the attached Draft Hallwood Evaporation Pond Closure Report), Envirotech identified four gaps in the work that had been completed in July 2008 by Envirotech and when this issue came to our attention in July 2017 during Chevron's recent transaction to sale assets in the Aztec area. These gaps include: 1) remaining sampling and delineation work of soil to meet NMAC closure requirements for locations where equipment had been located around the pond, 2) final as-built contour drawing of the final graded site, 3) seed mix and application rates documents, and of course, 4) documentation of ongoing work to revegetate.

In order to move this closure work forward, Chevron will validate site conditions through soil sampling in the equipment areas where this was not completed. Attached please find for your review the remaining delineation sampling Envirotech is proposing to address the remaining site sampling requirements.

Please let me know NMOCDs response to the following questions:

- Does NMOCD see a need for any additional sampling at the location beyond what has been done, and what is currently being proposed in Envirotech's proposal?
- Chevron would propose to start this sampling work as soon as NMOCD concurs with the work scope, does NMOCD need additional notice for when actual sampling work and do you wish to be present?

Once samples are analyzed, Chevron will submit results to NMOCD for evaluation and verification prior to proceeding with any additional closure activates.

Please let me know if you are in alignment with this next step in the proposed work plan.

Regards,

Richard T. Grubbs, P.E.
Senior Process Engineer
Water and Waste Advisor

Chevron NA Exploration & Production Company
MCBU
760 Horizon Drive, Suite 401
Grand Junction, CO 81506
Office: 970-257-6021
Cell: 913-748-9815
rtgrubbs@chevron.com

From: enviro admin [mailto:enviroadmin@envirotech-inc.com]
Sent: Monday, August 14, 2017 12:47 PM
To: Grubbs, Richard T <rtgrubbs@chevron.com>
Cc: Greg Crabtree <gcrabtree@envirotech-inc.com>; Felipe Aragon <faragon@envirotech-inc.com>; Julie Ortiz <jortiz@envirotech-inc.com>; Morris Young <myoung@envirotech-inc.com>
Subject: [**EXTERNAL**] Hallwood Evaporation Pond

Good Afternoon—

Please find attached the proposal for the Hallwood evaporation pond sampling.

We appreciate the opportunity to be of service. If you have any questions or require additional information, please contact our office at (505) 632-0615.

Sincerely,

Glenna Lawrence
Environmental Administrator
Envirotech, Inc. | 5796 US Highway 64 | Farmington, NM 87401
505.632.0615 Office | 505.632.1865 Fax | 505.947.8326 Cell
envirotech
http://envirotech-inc.com/

envirotech

August 14, 2017

Mr. Richard Grubbs
Chevron
332 CR 3100
Aztec, NM 87410

Office: (913) 748-9815
Email: rtgrubbs@chevron.com

RE: PROPOSAL FOR THE SAMPLING AND ANALYSIS FOR THE CHEVRON HALLWOOD EVAPORATION POND FINAL CLOSURE

Dear Mr. Grubbs:

Envirotech, Inc. (Envirotech) is pleased to provide this proposal to Chevron for the sampling and analysis for the Hallwood evaporation pond final closure. This proposal is based on the request for service by Mr. Richard Grubbs on August 10, 2017. If modifications to the scope of services are required, please contact Envirotech to discuss proposal revisions or change order submittal.

SCOPE OF WORK (SOW):

- ***Sampling and Analysis Activities:***
  - Envirotech personnel will collect up to five (5) samples. One (1) from each of the following sites.
    - Northwest corner where the historic water tank was located.
    - North berm area of the former pond where the pump house/liquids unloading occurred.
    - East side where equipment was stored.
    - Northeast corner where the treatment/equipment storage was located.
    - South of the former pond where the vegetation is struggling to re-establish.
  - The samples will be analyzed for the following parameters:
    - ***TPH*** (USEPA Method 418.1),
    - ***BTEX*** (USEPA Method 8021B),
    - ***Subsections A and B*** (NMAC 20.6.2.3103).
- ***Notification and Reporting Activities:***
  - A report documenting the results will be prepared and submitted to Chevron. The report will include the methods and procedures, analytical results, and other information relating to the on-site activities.

PROPOSED COST $8,625.00

The fixed fee price is limited to the items below:

- Personnel and equipment to perform the above mentioned SOW.
- Mobilization to and from site.
- Cost for five (5) sample to be analyzed for the aforementioned constituents.

If additional services or analysis is requested, it will be charged in accordance with Envirotech, Inc. Standard Rate Schedule. If waste is determined to be hazardous a Change Order will be issued to reflect additional disposal costs.

CLIENT RESPONSIBILITIES:

- Sign and return proposal document prior to commencing activities.
- Provide access to locations.

TERMS:

- CHANGE ORDER: This proposal is based upon the request for services from Mr. Grubbs on August 10, 2017. If upon arrival on-site, the scope of work and/or site conditions have changed, a Change Order will be required to proceed with the project on a time and material basis per Envirotech's Standard Rate Schedule. Verbal authorization will be accepted by a Company Representative; however, we will require you provide written authorization within 24-hours.

- PAYMENT: Established clients payment terms will be Net 30 days from Invoice Date. Interest charged at the rate of 1.5% per month or 18% per annum on accounts not paid within 30 days. All new Clients will be required to complete a Credit Application Form prior to start of project or will be required to complete the Credit Card Authorization Form or speak with Envirotech Accounting Department to setup check or cash payment prior to start of project.

- DISPUTE RESOLUTION. In the event it becomes necessary to pursue collections, to refer any dispute to an attorney, or to resolve a dispute in a court of law, the prevailing party will be entitled to an award of any and all collection fees, reasonable attorney's fees and costs associated with any action regardless of whether or not a suit shall actually be filed.

To accept this proposal, please provide a purchase order or sign where indicated below and return to our office by email to enviroadmin@envirotech-inc.com or by fax to (505) 632-1865. If you elect not to proceed, please notify Envirotech, Inc. and we will then invoice for all services to date.

We appreciate the opportunity to provide this proposal and look forward to working with you on this project. Should you have any questions or need additional information, please feel free to contact our office at (505) 632-0615.

Sincerely,

ENVIROTECH, INC.

Greg Crabtree, PE
Environmental Manager
gcrabtree@envirotech-inc.com

ACCEPTANCE:

Signature

Title Date

Cc: Morris Young, Envirotech, Inc.
Julie Ortiz, Envirotech, Inc.
Greg Crabtree, Envirotech, Inc.

envirotech

August 1, 2017 Project No. 92270-0204

Mr. Richard Grubbs
Chevron North America
760 Horizon Drive Phone: (970) 257-6021
Grand Junction, Colorado 81506 Cell: (913) 748-9815

RE: DRAFT EVAPORATION POND CLOSURE REPORT FOR THE HALLWOOD EVAPORATION POND LOCATED IN SECTION 25, TOWNSHIP 32N, RANGE 13W, SAN JUAN COUNTY, NEW MEXICO

Dear Mr. Grubbs,

Please find enclosed the *Draft Evaporation Pond Closure Report* for the Hallwood Evaporation Pond. This report details the closure activities performed between May 6, 2008 and June 24, 2008. In addition, Envirotech performed an assessment of the work completed and compared it to the closure plan that was submitted and approved by the New Mexico Oil Conservation Division. The following is a list of Items that may need to be addressed prior to submitting the Final Closure Report.

1. It does not appear that samples were collected from the following locations in accordance with the approved closure plan.
   - Liquids Receiving Area
   - Treatment Area(s)

   It appears from several historical photos that the liquids receiving area and possibly the treatment areas were along the north and possibly east sides of the lagoon.

2. No documentation of the seeding that was completed. In the Draft Report that was sent out in 2008 the recommendation was made to re-seed in the following spring after closure activities were completed.
   - The approval letter from Brad Jones specified to supply the seed mix and application rates that was used to seed.

3. No final contour map was completed after the site was recontoured.
   - The final contour map was requested in the Closure Plan approval letter.

4. No inspection records for the post closure period for the re-establishment of vegetation.

Please let us know if you need any additional information and how else we can be of service.

We appreciate the opportunity to be of service. If you have any questions or need additional information, please contact our office at (505) 632-0615.

Sincerely,
ENVIROTECH, INC.

Greg Crabtree
Principal Engineer
gcrabtree@envirotech-inc.com

Enclosure: Evaporation Pond Closure Report

Cc: Client File 92270

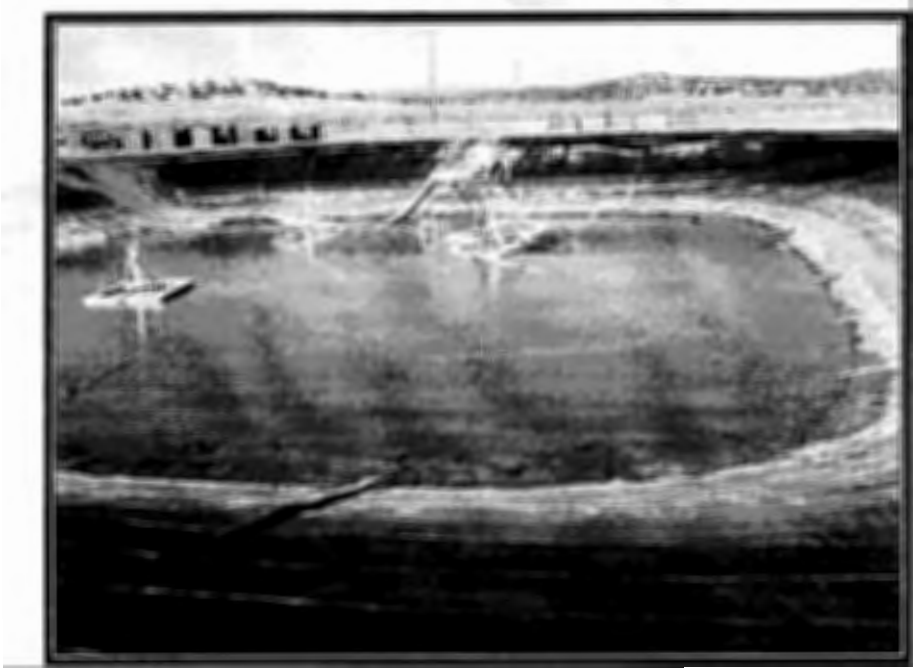
EVAPORATION POND CLOSURE REPORT

LOCATED AT:

HALLWOOD EVAPORATION POND
NW ¼ SE ¼, SECTION 25, TOWNSHIP 32, RANGE 13W
SAN JUAN COUNTY, NEW MEXICO
PERMIT NO. NM-02-0006

FOR:

MR. RICHARD GRUBBS
CHEVRON NORTH AMERICA
332 COUNTY ROAD 3100
P.O. BOX 730
AZTEC, NEW MEXICO 87410



PROJECT NO. 92270-0204

AUGUST 2017

EVAPORATION POND CLOSURE REPORT
HALLWOOD EVAPORATION POND
SECTION 25, TOWNSHIP 32N, RANGE 13W
SAN JUAN COUNTY, NEW MEXICO

TABLE OF CONTENTS

INTRODUCTION

Envirotech, Inc. of Farmington, New Mexico, was contracted by Chevron to perform evaporation pond closure activities at the Hallwood Evaporation Pond, located in Section 25, Township 32N, Range 13W, San Juan County, New Mexico; see ***Figure 1, Vicinity Map.*** Closure activities included sampling, analyses, and removal and disposal of contaminated materials including blending sludge with a pug mill to reduce the liquid level for transport. Closure activities also included conducting a paint filter test prior to transport of contaminated material, site restoration, documentation, and reporting.

ACTIVITIES PERFORMED

Activities to close the Hallwood Evaporation Pond were conducted in accordance with The approved closure plan submitted by Envirotech May 20, 2008. The closure plan was approved by the NMOCD on May 28, 2008.

In accordance with the approved closure plan the daily account of the onsite activities outline the onsite activities. All liquids, sludge, liner and piping were disposed of at approved surface waste management facilities.

May 6, 2008
Envirotech, Inc. arrived on site and performed a brief site assessment; see ***Figure 2, Site Map***. Envirotech, Inc. collected two (2) liquid samples from the leak detection and from the evaporation pond. The samples were transported on ice under chain of custody to Envirotech's laboratory for Cations/Anions analyses using USEPA Method 600/4-79-020; See ***Appendix A, Analytical Results***. Comparative analysis in the form of a rose plot was done to see if the water present in the leak detection was the same as the pond water.

May 7, 2008 – May 9, 2008
Starting on May 7, Envirotech utilized Rock Springs transport to haul liquids from the evaporation pond to Basin Disposal. Between these dates 1,170 bbls of water from the pond was delivered to the disposal facility; ***see Appendix B – Bills of Lading - Basin Disposal***.

May 23, 2008
Envirotech, Inc. collected a sludge sample from the bottom of the evaporation pond. The sample was placed in a four (4) ounce glass jar, capped headspace free, and transported on ice under chain of custody to Envirotech's laboratory for pH analysis. The sample pH level was 10.4; see ***Appendix A, Analytical Results – Pond Sludge***.

May 30, 2008
Envirotech, Inc. performed naturally occurring radioactive material (NORM) screening. Screening was conducted on PVC pipe, sand bags, angle iron, and rubber hosing. None of the screening results were above the allowable concentration of 0.08 mR/hr determined for this site; see ***Appendix A, Analytical Results – Norm Testing***.

June 2, 2008
Envirotech, Inc. began cleanup activities, collected a soil sample from the bottom of the pond, and performed NORM screening. The soil sample was analyzed in the field for TPH using USEPA Method 418.1 and for chlorides. The sample results were 268 ppm TPH and 91 ppm chlorides. Due to the sludge sample containing TPH the material could be accepted at Envirotech's Landfarm #2 as petroleum contaminated soil. NORM screening was conducted on a sludge stockpile located on site. The screening results were below the allowable concentration of 0.08 mR/hr determined for this site; see ***Appendix A, Analytical Results – Norm Testing and Appendix A, Analytical Results – Pond Sludge***. Cleanup activities included the collection of contaminated material using hydro-excavation; see ***Appendix D, Site Photography***. The sludge was then processed with the use of a pugmill to stabilize it for transport.

June 3, 2008
Envirotech, Inc. removed and transported approximately 56 cubic yards of contaminated soil and 110 barrels of sludge to Envirotech's NMOCD permitted remediation facility, Landfarm #2, near Hilltop, New Mexico; see ***Appendix B, Bills of Lading – Envirotech BOL's***.

June 4, 2008
Envirotech, Inc. continued to collect the contaminated material using hydro-excavation. Envirotech, Inc. removed and transported approximately 90 cubic yards of contaminated soil and 355 barrels of sludge to Envirotech's NMOCD permitted remediation facility, Landfarm #2, near Hilltop, New Mexico; see ***Appendix B, Bills of Lading – Envirotech BOL's***.

June 5, 2008
Envirotech, Inc. continued hydro-excavation activities. Envirotech, Inc. removed and transported approximately 126 cubic yards of contaminated soil and 500 barrels of sludge to Envirotech's NMOCD permitted remediation facility, Landfarm #2, near Hilltop, New Mexico; see ***Appendix B, Bills of Lading – Envirotech BOL's***.

June 6, 2008
Envirotech, Inc. continued hydro-excavation activities. Envirotech, Inc. removed and transported approximately 68 cubic yards of contaminated soil and 400 barrels of sludge to Envirotech's NMOCD permitted remediation facility, Landfarm #2, near Hilltop, New Mexico; see ***Appendix B, Bills of Lading – Envirotech BOL's***.

June 9, 2008
Envirotech, Inc. continued hydro-excavation activities. Envirotech, Inc. removed and transported approximately 140 cubic yards of contaminated soil and 630 barrels of sludge to Envirotech's NMOCD permitted remediation facility, Landfarm #2, near Hilltop, New Mexico; see ***Appendix B, Bills of Lading – Envirotech BOL's***.

June 10, 2008
Envirotech, Inc. continued hydro-excavation activities. Envirotech, Inc. removed and transported 470 barrels of sludge to Envirotech's NMOCD permitted remediation facility, Landfarm #2, near Hilltop, New Mexico; see ***Appendix B, Bills of Lading – Envirotech BOL's***. Additionally, piping and rubber hoses were removed and transported to San Juan County Landfill for disposal;

see ***Appendix C, Special Waste Shipment Records***.

June 11, 2008
Envirotech, Inc. continued hydro-excavation activities. Envirotech, Inc. removed and transported approximately 26 cubic yards of contaminated soil and 215 barrels of sludge to Envirotech's NMOCD permitted remediation facility, Landfarm #2, near Hilltop, New Mexico; see ***Appendix B, Bills of Lading – Envirotech BOL's***. Additionally, liner material was removed and transported to San Juan County Landfill for disposal; see ***Appendix C, Special Waste Shipment Records***.

June 12, 2008
Envirotech, Inc. performed NORM screening on the pond liner and sandbags. The screening results were below allowable concentrations of 0.08 mR/hr, see ***Appendix A, Analytical Results – Norm Testing***. Envirotech, Inc. removed and transported liner material to San Juan County Landfill for disposal; see ***Appendix C, Special Waste Shipment Records***.

June 13, 2008
Envirotech, Inc. continued the removal of liner material. Liner material was removed and transported to San Juan County Landfill for disposal; see ***Appendix C, Special Waste Shipment Records***.

June 16, 2008
Envirotech, Inc. collected five (5) soil samples from beneath the second liner. One (1) sample was collected from each quadrant in the evaporation pond and one (1) sample was collected from the site for background. The samples were collected into four (4) ounce glass jars, capped headspace free, and transported on ice under chain of custody to Envirotech's laboratory for analysis for benzene and BTEX using USEPA Method 8021, for volatile organic compounds (VOCs) using USEPA Method 8260, for TPH using USEPA Method 418.1, for total metals using USEPA Method 6010; for pH, total dissolved solids (TDS), nitrate nitrogen, cyanide, fluoride, chloride, and for sulfate using USEPA Method 600/4-79-020. The samples were also analyzed for phenols using USEPA Method 8270, for PCBs using USEPA Method 8082, for polycyclic aromatic hydrocarbons (PAHs) using USEPA Method 8310, for radium using USEPA Methods 903 and 904, and for uranium using USEPA Method 200.8. The samples were within or below regulatory limits for all constituents analyzed; see ***Table 1: Summary of Closure Sample Analytical Results and Appendix A, Analytical Results***. None of the samples collected exceeded the limits specified in the NMOCD Guidelines for the Remediation of Leaks Spills and Releases.

June 17, 2008
Envirotech, Inc. performed NORM screening on the remaining pond liner material. The screening results were below allowable concentration of 0.12 mR/hr; see ***Appendix A, Analytical Results***. Due to analyst interpretation of instrument readings, the allowable concentration determined for the site on this day varies slightly from the allowable concentration of 0.08 mR/hr determined on previous dates; however, the readings are all near background and are approximately half of the allowable concentration.

June 18, 2008
Envirotech, Inc. transported the remaining pond liner material to San Juan County Landfill; see ***Appendix C, Special Waste Shipment Records***, and transported 170 barrels of sludge to Envirotech's NMOCD permitted remediation facility, Landfarm #2, near Hilltop, New Mexico; see ***Appendix B, Bills of Lading***.

June 19, 2008
Envirotech, Inc. began restoration activities by backfilling the excavation with approximately 539 cubic yards of virgin fill material of which 236 cubic yards were transported from Envirotech's Landfarm; see ***Appendix B, Bills of Lading***, and 283 cubic yards were transported from Envirotech's Equipment Yard. Backfilling and leveling activities continued through June 24, 2008.

SUMMARY AND CONCLUSIONS

Envirotech, Inc. conducted evaporation pond closure activities including removal of contaminated material, site restoration, confirmation sampling and analysis, documentation, and reporting. Approximately 506 cubic yards of contaminated soil and 2,850 barrels of sludge were transported to Envirotech's NMOCD permitted remediation facility, Landfarm #2, located near Hilltop New Mexico; see ***Appendix B***, ***Bills of Lading***. Approximately 110 cubic yards of PVC piping and liner material were transported to San Juan County Landfill; see ***Appendix C, Special Waste Shipment Records***. Envirotech, Inc. recommends reseeding activities be conducted in the spring. Once this is complete, no further action is required in regard to this incident.

STATEMENT OF LIMITATIONS

Envirotech, Inc. performed evaporation pond closure activities at the Hallwood Evaporation Pond located in Section 25, Township 32N, Range 13W, San Juan County, New Mexico. The work and services provided by Envirotech, Inc. were under the guidelines of the NMOCD. All observations and conclusions provided here are based on the information and current site conditions found during this investigation.

Due to the final report not being submitted at the time of service this report was revised in 2017 to close out the project. The original employees that completed the work are no longer employed with Envirotech. This report and the supplemental information has been verified by Envirotech's Management Team

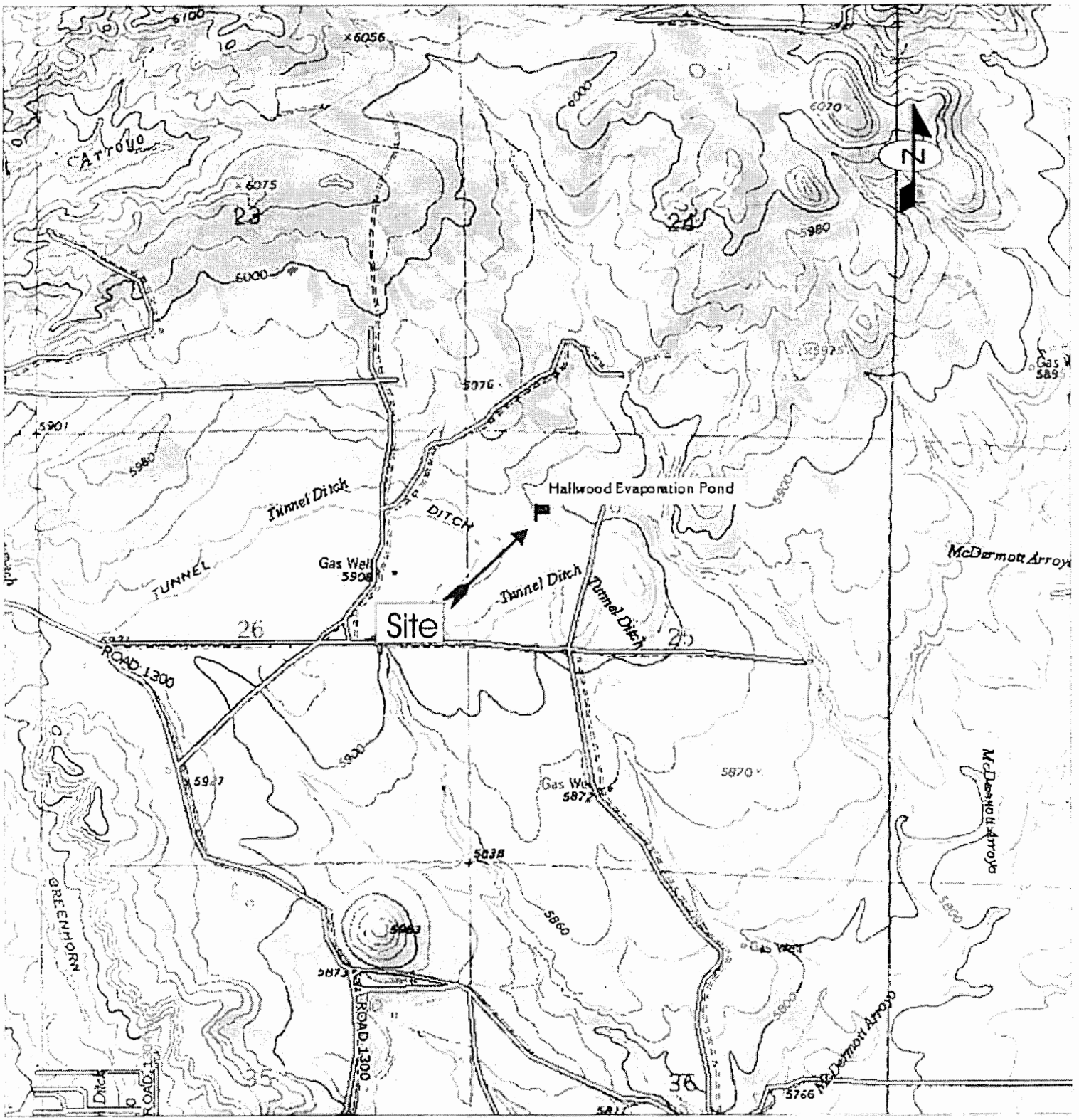
We appreciate the opportunity to be of service. If you should have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,
ENVIROTECH, INC.

Reviewed by:

_____
Envirotech Management

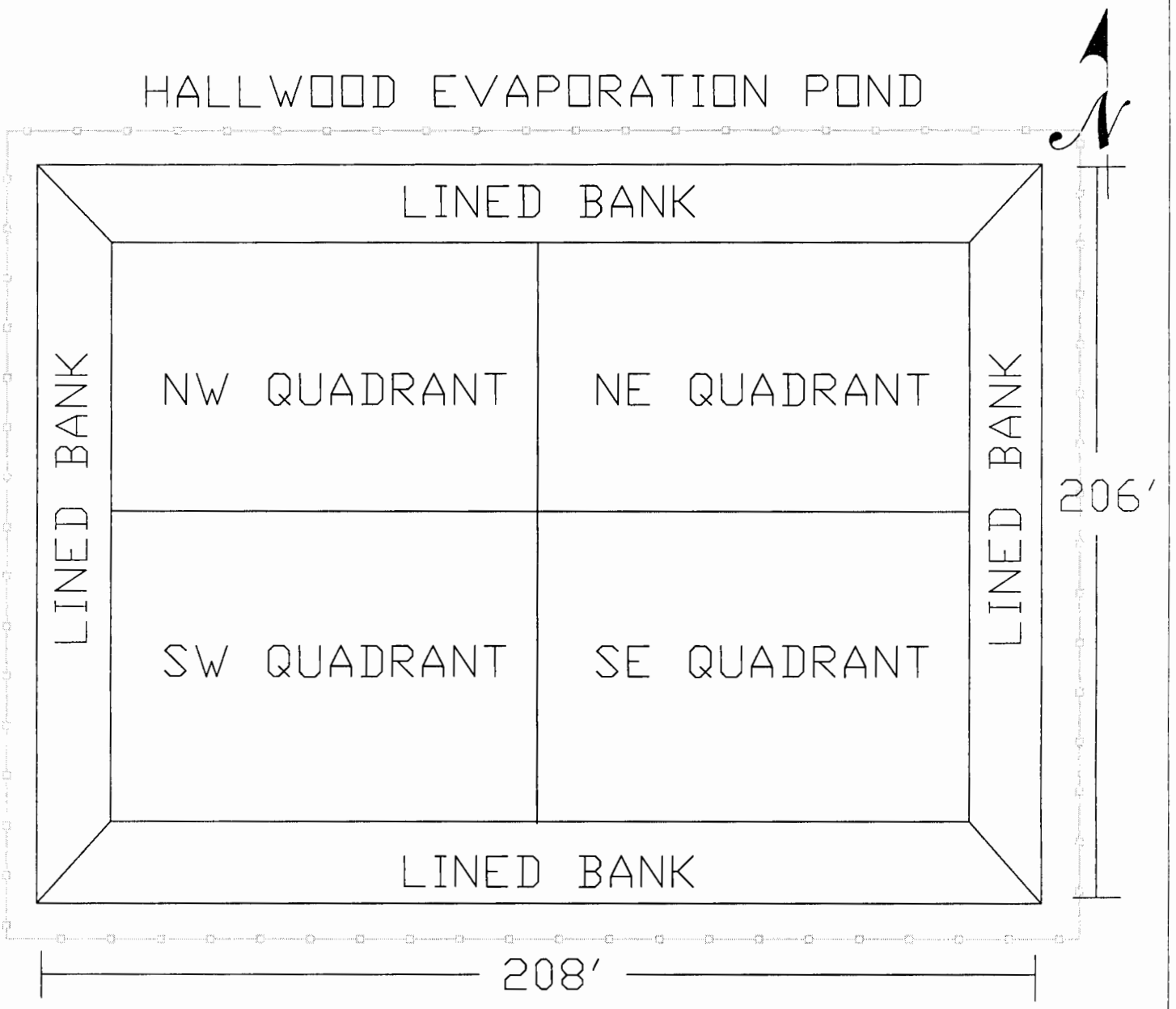
FIGURES



Source: La Plata, New Mexico 7.5 Minute U.S.G.S. Topographic Quadrangle Map
Scale: 1:24,000 1" = 2000'

Chevron Hallwood Evaporation Pond Section 25, Twp 32N, Rge 13W San Juan County, New mexico	ENVIROTECH INC. ENVIRONMENTAL SCIENTISTS & ENGINEERS 5796 U.S. HIGHWAY 64 FARMINGTON, NEW MEXICO 87401 PHONE (505) 632-0615	Vicinity Map Figure 1
PROJECT No 92270-0204 | Date Drawn: 10/01/08		DRAWN BY: Sherry Auckland | PROJECT MANAGER: Kyle P. Kerr

HALLWOOD EVAPORATION POND



Legend

Fencing

SITE MAP
CHEVRON
HALLWOOD EVAPORATION POND
SEC 25 TWN 32N RGE 13W
SAN JUAN COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. 2	REV
PROJECT N092270-0204		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	SLA	01/07/08	BASE DRWN		

ENVIRONMENTAL SCIENTISTS & ENGINEERS
ENVIROTECH
5796 U.S. HIGHWAY 64, FARMINGTON, NM 87410 505-632-0615

TABLE

Table 1: Analyte Concentrations

Analyte of Interest	NE	NW	SE	SW	Background
Total Petroleum Hydrocarbons (TPH) USEPA Method 418.1 (mg/kg)					
Total Petroleum Hydrocarbons (TPH)	74.3	18.5	17.2	15.8	15.8
Volatile Organic Compounds (VOC) USEPA Method 8260 (mg/kg)					
Benzene	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001
Xylene	<0.001	<0.001	<0.001	<0.001	<0.001
Naphthalene	<0.001	<0.001	<0.001	<0.001	<0.001
1-Methylnaphthalene	<0.001	<0.001	<0.001	<0.001	<0.001
2-Methylnaphthalene	<0.001	<0.001	<0.001	<0.001	<0.001
Carbon Tetrachloride	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-dichloroethane	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-dichloroethylene (1,1-dichloroethene)	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2,2-tetrachloroethylene(tetrachloroethene)	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-trichloroethylene (trichloroethene)	<0.001	<0.001	<0.001	<0.001	<0.001
methylene chloride	<0.001	<0.001	<0.001	<0.001	<0.001
chloroform	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-dichloroethane	<0.001	<0.001	<0.001	<0.001	<0.001
ethylene dibromide (1,2-dibromoethane)	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,1-trichloroethane	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-trichloroethane	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2,2-tetrachloroethane	<0.001	<0.001	<0.001	<0.001	<0.001
vinyl chloride	<0.001	<0.001	<0.001	<0.001	<0.001
Polynuclear Aromatic Hydrocarbons (PAH) USEPA Method 8270C (mg/kg)					
Acenaphthene	<0.25	<0.25	<0.25	<0.25	<0.25
Acenaphthylene	<0.25	<0.25	<0.25	<0.25	<0.25
Anthracene	<0.015	<0.015	<0.015	<0.015	<0.015
Benzo(a)anthracene	<0.010	<0.010	<0.010	<0.010	<0.010
Benzo(a)pyrene	<0.010	<0.010	<0.010	<0.010	<0.010
Benzo(b)fluoranthene	<0.010	<0.010	<0.010	<0.010	<0.010
benzo(ghi)perylene	<0.010	<0.010	<0.010	<0.010	<0.010
Benzo(k)fluoranthene	<0.010	<0.010	<0.010	<0.010	<0.010
Chrysene	<0.011	<0.011	<0.011	<0.011	<0.011
Dibenz(a,h)anthracene	<0.010	<0.010	<0.010	<0.010	<0.010
Fluoranthene	<0.020	<0.020	<0.020	<0.020	<0.020
Fluorene	<0.030	<0.030	<0.030	<0.030	<0.030
Indeno(1,2,3-c,d)pyrene	<0.10	<0.10	<0.10	<0.10	<0.10
Phenanthrene	<0.015	<0.015	<0.015	<0.015	<0.015
pyrene	<0.025	<0.025	<0.025	<0.025	<0.025
Phenols	<0.005	<0.005	<0.005	<0.005	<0.005
Polychlorinated Biphenyls (PCB's) USEPA Method 8082 (mg/kg)					
PCB 1016	<0.02	<0.02	<0.02	<0.02	<0.02
PCB 1221	<0.02	<0.02	<0.02	<0.02	<0.02
PCB 1232	<0.02	<0.02	<0.02	<0.02	<0.02
PCB 1242	<0.02	<0.02	<0.02	<0.02	<0.02
PCB 1248	<0.02	<0.02	<0.02	<0.02	<0.02
PCB 1254	<0.02	<0.02	<0.02	<0.02	<0.02
PCB 1260	<0.02	<0.02	<0.02	<0.02	<0.02

Total Metals USEPA Method 6010 (mg/kg)					
Arsenic	0.022	0.022	0.026	<0.001	<0.001
Barium	18.7	18.3	21.6	18.4	17.4
Cadmium	0.007	0.023	0.010	0.008	0.008
Chromium	0.693	0.785	0.767	0.728	1.306
Copper	0.201	1.90	1.71	1.68	1.82
Iron	33.8	30.3	32.9	32.9	19.4
Lead	0.220	0.225	0.224	0.226	0.263
Manganese	0.889	0.863	1.010	0.823	0.949
Mercury (Method 7471)	0.001	<0.001	<0.001	<0.001	<0.001
Selenium	0.022	<0.001	<0.001	<0.001	<0.001
Silver	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc	1.01	1.23	1.13	1.05	1.10
Uranium (Method 6020)	0.978	0.913	0.906	0.852	0.602
General Chemistry (mg/L unless otherwise specified)					
pH (pH units)	8.08	8.84	8.37	8.26	7.88
Total disolved Solids	950	710	1060	1130	1310
Nitrate	1.70	0.50	2.20	1.30	3.50
Cyanide	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoride	5.70	4.22	3.78	5.60	<0.1
Chloride	65.0	73.0	82.0	73.0	15.0
Sulfate	322	273	345	341	<0.1
Radiochemical Analysis (pCi/kg)					
Radium-226 & Radium-228	422.20	299.20	250.28	530.20	620.00

APPENDIX A

Norm Testing Analytical Results

Jones, Brad A., EMNRD

From: Smith, Cory, EMNRD
Sent: Tuesday, August 8, 2017 1:31 PM
To: Jones, Brad A., EMNRD
Subject: FW: Hallwood Evaporation Pit data
Attachments: Closure Report.pdf; Summary of Analytical Results.pdf; Chevron La Plata Evaporation Pond Analyticals.pdf; QLS 802168 SURFACE LEASE.JPG

Brad,

FYI I will be giving you a call here this afternoon to talk to you about this site.

Thanks,

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Grubbs, Richard T [mailto:rtgrubbs@chevron.com]
Sent: Tuesday, August 1, 2017 9:00 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Subject: FW: Hallwood Evaporation Pit data

Cory,

According to our land man, the surface estate where the Pit ,Chevron CDP, Chevron well, and XTO well are situated on a 160 acre tract owned by the "Terri Green League Trust", 91314 Coal Road, Pond Creek, OK 73766-5029 (SAN JUAN COUNTY A/C # R0051048). The tracts in the S/2 of Sec 25 T32N R13W to the north, east and west of the League tract is owned by Montoya Cattle Company. See attached San Juan County Tax Assessor's plat. Chevron has a surface lease for this land with annual payment. Our land man will be in contact with the owner regarding the closure and discuss the current surface condition.

Regards,
Rich

From: Grubbs, Richard T
Sent: Monday, July 31, 2017 5:13 PM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Greg Crabtree <gcrabtree@envirotech-inc.com>
Subject: Hallwood Evaporation Pit data

Cory,

Thank you for coming to the field site at Hallwood Evaporation Pit on Friday.

Here are some of the items we discussed.

- My copy of the closure report absent of the appendix items. We searched our local files as best as we could and come up short. I found this ecopy in my predecessor Richard Carroll's files. Greg Crabtree is working to assemble the complete report with appendix. He has indicated he is short a few disposal tickets but is working to find them.
- Attached is the analytical you requested done during the closure.

I am working on the ownership documents and will forward these based on what our land man finds.

Regards;

Richard T. Grubbs, P.E.
Senior Process Engineer
Water and Waste Advisor

Chevron NA Exploration & Production Company
MCBU
760 Horizon Drive
Grand Junction, CO 81506
Office: 970-257-6021
Cell: 913-748-9815
rtgrubbs@chevron.com

EVAPORATION POND CLOSURE REPORT
HALLWOOD EVAPORATION POND
SECTION 25, TOWNSHIP 32N, RANGE 13W
SAN JUAN COUNTY, NEW MEXICO

TABLE OF CONTENTS

INTRODUCTION

Envirotech, Inc. of Farmington, New Mexico, was contracted by Chevron to perform evaporation pond closure activities at the Hallwood Evaporation Pond, located in Section 25, Township 32N, Range 13W, San Juan County, New Mexico; see ***Figure 1, Vicinity Map.*** Closure activities included sampling, analyses, and removal and disposal of contaminated materials including blending sludge with a pug mill to reduce the liquid level for transport. Closure activities also included conducting a paint filter test prior to transport of contaminated material, site restoration, documentation, and reporting.

ACTIVITIES PERFORMED

May 6, 2008

Envirotech, Inc. arrived on site and performed a brief site assessment; see ***Figure 2, Site Map***. Envirotech, Inc. collected two (2) liquid samples from the leak detection and from the evaporation pond. The samples were transported on ice under chain of custody to Envirotech's laboratory for Cations/Anions analyses using USEPA Method 600/4-79-020; See ***Appendix A, Analytical Results***.

May 9, 2008

Envirotech, Inc. collected a soil sample from the bottom of the evaporation pond. The sample was placed in a four (4) ounce glass jar, capped headspace free, and transported on ice under chain of custody to Envirotech's laboratory for analyses for total petroleum hydrocarbons (TPH) using USEPA Method 8015, for benzene and BTEX using USEPA Method 8021, and for total chloride using USEPA Method 4500. The sample concentrations were non-detect for TPH, non-detect for benzene, 0.0328 ppm BTEX, and 1,700 ppm total chloride; see ***Appendix A, Analytical Results***.

May 23, 2008

Envirotech, Inc. collected a sludge sample from the bottom of the evaporation pond. The sample was placed in a four (4) ounce glass jar, capped headspace free, and transported on ice under chain of custody to Envirotech's laboratory for pH analysis. The sample pH level was 10.4; see ***Appendix A, Analytical Results***.

May 30, 2008

Envirotech, Inc. performed naturally occurring radioactive material (NORM) screening. Screening was conducted on PVC pipe, sand bags, angle iron, and rubber hosing. None of the screening results were above the allowable concentration of 0.08 mR/hr determined for this site; see ***Appendix A, Analytical Results***.

June 2, 2008

Envirotech, Inc. began cleanup activities, collected a soil sample from the bottom of the pond, and performed NORM screening. The soil sample was analyzed in the field for TPH using USEPA Method 418.1 and for chlorides. The sample results were 268 ppm TPH and 91 ppm chlorides. NORM screening was conducted on a sludge stockpile located on site. The screening

results were below the allowable concentration of 0.08 mR/hr determined for this site; see ***Appendix A, Analytical Results***. Cleanup activities included the collection of contaminated material using hydro-excavation; see ***Appendix D, Site Photography***.

June 3, 2008
Envirotech, Inc. removed and transported approximately 56 cubic yards of contaminated soil and 110 barrels of sludge to Envirotech's NMOCD permitted remediation facility, Landfarm #2, near Hilltop, New Mexico; see ***Appendix B, Bills of Lading***.

June 4, 2008
Envirotech, Inc. continued to collect the contaminated material using hydro-excavation. Envirotech, Inc. removed and transported approximately 90 cubic yards of contaminated soil and 355 barrels of sludge to Envirotech's NMOCD permitted remediation facility, Landfarm #2, near Hilltop, New Mexico; see ***Appendix B, Bills of Lading***.

June 5, 2008
Envirotech, Inc. continued hydro-excavation activities. Envirotech, Inc. removed and transported approximately 126 cubic yards of contaminated soil and 500 barrels of sludge to Envirotech's NMOCD permitted remediation facility, Landfarm #2, near Hilltop, New Mexico; see ***Appendix B, Bills of Lading***.

June 6, 2008
Envirotech, Inc. continued hydro-excavation activities. Envirotech, Inc. removed and transported approximately 68 cubic yards of contaminated soil and 400 barrels of sludge to Envirotech's NMOCD permitted remediation facility, Landfarm #2, near Hilltop, New Mexico; see ***Appendix B, Bills of Lading***.

June 9, 2008
Envirotech, Inc. continued hydro-excavation activities. Envirotech, Inc. removed and transported approximately 140 cubic yards of contaminated soil and 630 barrels of sludge to Envirotech's NMOCD permitted remediation facility, Landfarm #2, near Hilltop, New Mexico; see ***Appendix B, Bills of Lading***.

June 10, 2008
Envirotech, Inc. continued hydro-excavation activities. Envirotech, Inc. removed and transported 470 barrels of sludge to Envirotech's NMOCD permitted remediation facility, Landfarm #2, near Hilltop, New Mexico; see ***Appendix B, Bills of Lading***. Additionally, piping and rubber hoses were removed and transported to San Juan County Landfill for disposal; see ***Appendix C, Special Waste Shipment Records***.

June 11, 2008
Envirotech, Inc. continued hydro-excavation activities. Envirotech, Inc. removed and transported approximately 26 cubic yards of contaminated soil and 215 barrels of sludge to Envirotech's NMOCD permitted remediation facility, Landfarm #2, near Hilltop, New Mexico; see ***Appendix B, Bills of Lading***. Additionally, liner material was removed and transported to San Juan County Landfill for disposal; see ***Appendix C, Special Waste Shipment Records***.

June 12, 2008
Envirotech, Inc. performed NORM screening on the pond liner and sandbags. The screening results were below allowable concentrations of 0.08 mR/hr, see ***Appendix A, Analytical Results***. Envirotech, Inc. removed and transported liner material to San Juan County Landfill for disposal; see ***Appendix C, Special Waste Shipment Records***.

June 13, 2008
Envirotech, Inc. continued the removal of liner material. Liner material was removed and transported to San Juan County Landfill for disposal; see ***Appendix C, Special Waste Shipment Records***.

June 16, 2008
Envirotech, Inc. collected five (5) soil samples from beneath the second liner. One (1) sample was collected from each quadrant in the evaporation pond and one (1) sample was collected from the site for background. The samples were collected into four (4) ounce glass jars, capped headspace free, and transported on ice under chain of custody to Envirotech's laboratory for analysis for benzene and BTEX using USEPA Method 8021, for volatile organic compounds (VOCs) using USEPA Method 8260, for TPH using USEPA Method 418.1, for total metals using USEPA Method 6010; for pH, total dissolved solids (TDS), nitrate nitrogen, cyanide, fluoride, chloride, and for sulfate using USEPA Method 600/4-79-020. The samples were also analyzed for phenols using USEPA Method 8270, for PCBs using USEPA Method 8082, for polycyclic aromatic hydrocarbons (PAHs) using USEPA Method 8310, for radium using USEPA Methods 903 and 904, and for uranium using USEPA Method 200.8. The samples were within or below regulatory limits for all constituents analyzed; see ***Appendix A, Analytical Results***.

June 17, 2008
Envirotech, Inc. performed NORM screening on the remaining pond liner material. The screening results were below allowable concentration of 0.12 mR/hr; see ***Appendix A, Analytical Results***. Due to analyst interpretation of instrument readings, the allowable concentration determined for the site on this day varies slightly from the allowable concentration of 0.08 mR/hr determined on previous dates; however, the readings are all near background and are approximately half of the allowable concentration.

June 18, 2008
Envirotech, Inc. transported the remaining pond liner material to San Juan County Landfill; see ***Appendix C, Special Waste Shipment Records***, and transported 170 barrels of sludge to Envirotech's NMOCD permitted remediation facility, Landfarm #2, near Hilltop, New Mexico; see ***Appendix B, Bills of Lading***.

June 19, 2008
Envirotech, Inc. began restoration activities by backfilling the excavation with approximately 539 cubic yards of virgin fill material of which 236 cubic yards were transported from Envirotech's Landfarm; see ***Appendix B, Bills of Lading***, and 283 cubic yards were transported from Envirotech's Equipment Yard. Backfilling and leveling activities continued through June 24, 2008.

SUMMARY AND CONCLUSIONS

Envirotech, Inc. completed evaporation pond closure activities including removal of contaminated material, site restoration, confirmation sampling and analysis, documentation, and reporting. Approximately 506 cubic yards of contaminated soil and 2,850 barrels of sludge were transported to Envirotech's NMOCD permitted remediation facility, Landfarm #2, located near Hilltop New Mexico; see ***Appendix B, Bills of Lading***. Approximately 110 cubic yards of PVC piping and liner material were transported to San Juan County Landfill; see ***Appendix C, Special Waste Shipment Records***. Envirotech, Inc. recommends reseeding activities be conducted in the spring. Once this is complete, no further action is required in regard to this incident.

STATEMENT OF LIMITATIONS

Envirotech, Inc. performed evaporation pond closure activities at the Hallwood Evaporation Pond located in Section 25, Township 32N, Range 13W, San Juan County, New Mexico. The work and services provided by Envirotech, Inc. were under the guidelines of the NMOCD. All observations and conclusions provided here are based on the information and current site conditions found during this investigation.

The undersigned has conducted this service at the above referenced site. This work has been conducted and reported in accordance with generally accepted professional practices in geology, engineering, environmental chemistry, and hydrogeology.

We appreciate the opportunity to be of service. If you should have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,
ENVIROTECH, INC.

Reviewed by:

Sherry L. Auckland
Environmental Scientist
sauckland@envirotech-inc.com

Kyle P. Kerr, CHMM
Senior Environmental Scientist/Manager
kpkerr@envirotech-inc.com

FIGURES

APPENDIX A

Analytical Results

APPENDIX B

Bills of Lading

APPENDIX C

Special Waste Shipment Records

APPENDIX D

Site Photography

Table 1: Analyte Concentrations

Analyte of Interest	NE	NW	SE	SW	Background
Total Petroleum Hydrocarbons (TPH) USEPA Method 418.1 (mg/kg)					
Total Petroleum Hydrocarbons (TPH)	74.3	18.5	17.2	15.8	15.8
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Ethylbenzene	<0.001	<0.001	<0.001	<0.001	<0.001
Xylene	<0.001	<0.001	<0.001	<0.001	<0.001
Naphthalene	<0.001	<0.001	<0.001	<0.001	<0.001
1-Methylnaphthalene	<0.001	<0.001	<0.001	<0.001	<0.001
2-Methylnaphthalene	<0.001	<0.001	<0.001	<0.001	<0.001
Carbon Tetrachloride	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-dichloroethane	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-dichloroethylene (1,1-dichloroethene)	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2,2-tetrachloroethylene(tetrachloroethene)	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-trichloroethylene (trichloroethene)	<0.001	<0.001	<0.001	<0.001	<0.001
methylene chloride	<0.001	<0.001	<0.001	<0.001	<0.001
chloroform	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-dichloroethane	<0.001	<0.001	<0.001	<0.001	<0.001
ethylene dibromide (1,2-dibromoethane)	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,1-trichloroethane	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-trichloroethane	<0.001	<0.001	<0.001	<0.001	<0.001
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Acenaphthene	<0.25	<0.25	<0.25	<0.25	<0.25
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Benzo(b)fluoranthene	<0.010	<0.010	<0.010	<0.010	<0.010
benzo(ghi)perylene	<0.010	<0.010	<0.010	<0.010	<0.010
Benzo(k)fluoranthene	<0.010	<0.010	<0.010	<0.010	<0.010
Chrysene	<0.011	<0.011	<0.011	<0.011	<0.011
Dibenz(a,h)anthracene	<0.010	<0.010	<0.010	<0.010	<0.010
Fluoranthene	<0.020	<0.020	<0.020	<0.020	<0.020
Fluorene	<0.030	<0.030	<0.030	<0.030	<0.030
Indeno(1,2,3-c,d)pyrene	<0.10	<0.10	<0.10	<0.10	<0.10
Phenanthrene	<0.015	<0.015	<0.015	<0.015	<0.015
pyrene	<0.025	<0.025	<0.025	<0.025	<0.025
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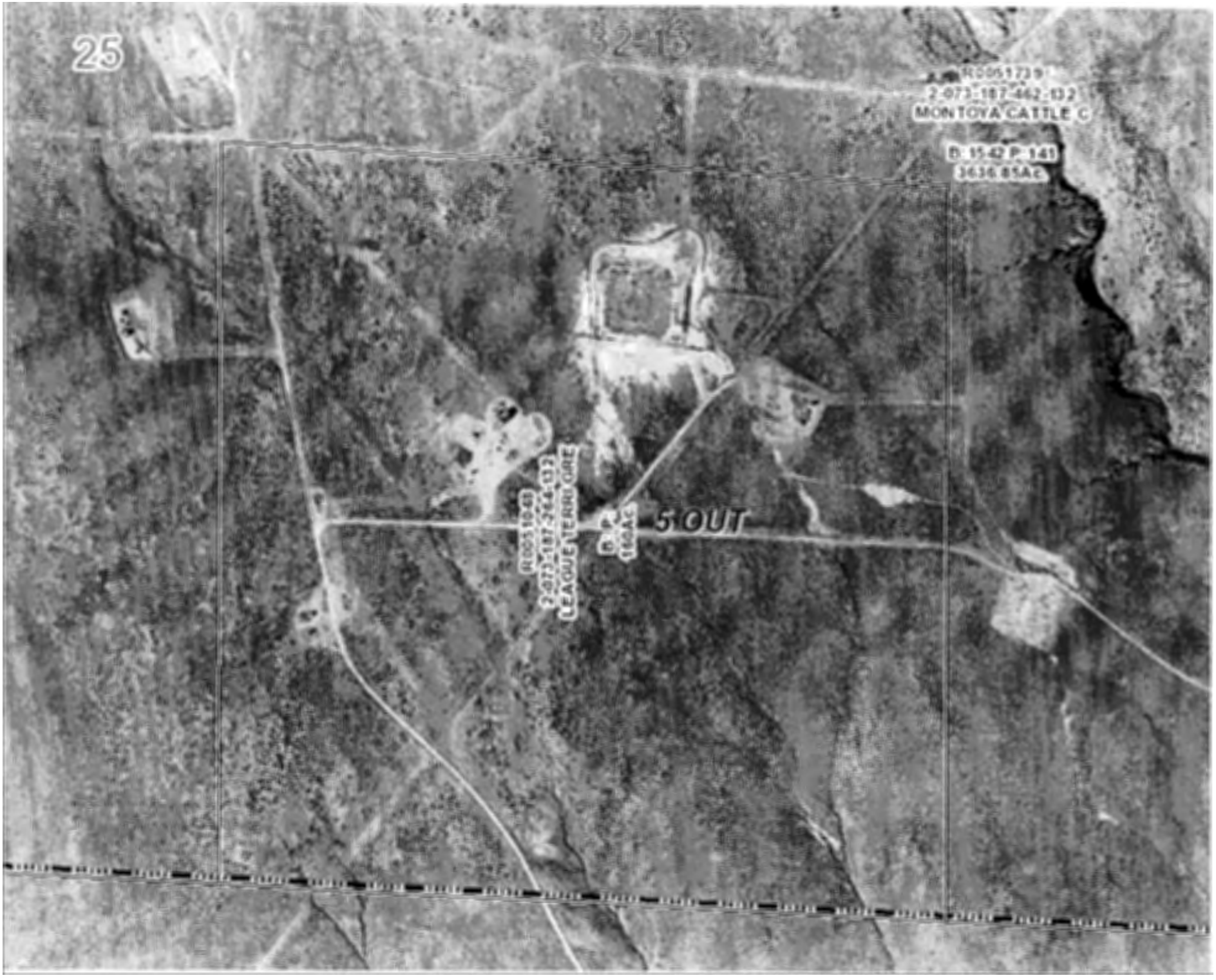
PCB 1016	<0.02	<0.02	<0.02	<0.02	<0.02
PCB 1221	<0.02	<0.02	<0.02	<0.02	<0.02
PCB 1232	<0.02	<0.02	<0.02	<0.02	<0.02
PCB 1242	<0.02	<0.02	<0.02	<0.02	<0.02
PCB 1248	<0.02	<0.02	<0.02	<0.02	<0.02
PCB 1254	<0.02	<0.02	<0.02	<0.02	<0.02
PCB 1260	<0.02	<0.02	<0.02	<0.02	<0.02

Total Metals USEPA Method 6010 (mg/kg)					
Arsenic	0.022	0.022	0.026	<0.001	<0.001
Barium	18.7	18.3	21.6	18.4	17.4
Cadmium	0.007	0.023	0.010	0.008	0.008
Chromium	0.693	0.785	0.767	0.728	1.306
Copper	0.201	1.90	1.71	1.68	1.82
Iron	33.8	30.3	32.9	32.9	19.4
Lead	0.220	0.225	0.224	0.226	0.263
Manganese	0.889	0.863	1.010	0.823	0.949
Mercury (Method 7471)	0.001	<0.001	<0.001	<0.001	<0.001
Selenium	0.022	<0.001	<0.001	<0.001	<0.001
Silver	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc	1.01	1.23	1.13	1.05	1.10
Uranium (Method 6020)	0.978	0.913	0.906	0.852	0.602
General Chemistry (mg/L unless otherwise specified)					
pH (pH units)	8.08	8.84	8.37	8.26	7.88
Total disolved Solids	950	710	1060	1130	1310
Nitrate	1.70	0.50	2.20	1.30	3.50
Cyanide	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoride	5.70	4.22	3.78	5.60	<0.1
Chloride	65.0	73.0	82.0	73.0	15.0
Sulfate	322	273	345	341	<0.1
Radiochemical Analysis (pCi/kg)					
Radium-226 & Radium-228	422.20	299.20	250.28	530.20	620.00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