BEFORE THE ENVIRONMENTAL QUALITY COUNCIL
STATE OF WYOMING

In the Matter of the Appeal of Notice of Violation and Order #4824-11 Issued to: Envirotank, Inc. (51.031) P.O. Box 302 Ft. Lupton, CO 80621	)))))	Docket No. 11-5208A

PETITIONER'S RESPONSE TO DEQ'S FIRST REQUEST FOR ADMISSIONS

REQUEST FOR ADMISSION NO. 1: Envirotank, Inc. operates a scrap tire processing facility located on Clarkelen Road approximately 14 miles south of Gillette in Campbell County.

RESPONSE: Admit.

REQUEST FOR ADMISSION NO. 2: Envirotank, Inc. is an active Wyoming corporation, which initially filed with the Wyoming Secretary of State 12/26/2001 (Filing No. 2001-000428258).

RESPONSE: Admit.

REQUEST FOR ADMISSION NO. 3: Envirotank, Inc.'s principal office is currently located at 377 Clarkelen Rd. in Gillette, Wyoming and its current mailing address is P.O. Box 302, Ft. Lupton, Colorado 80621.

RESPONSE: Admit.

REQUEST FOR ADMISSION NO. 4: Michael J. Bulger is currently Envirotank, Inc.'s corporate president.

RESPONSE: Admit.

REQUEST FOR ADMISSION NO. 5: By letter addressed to Mr. John Hull, Envirotank, Inc., dated November 15, 2004, the DEQ/SHWD issued Solid Waster Operating Permit #51.031 authorizing Envirotank, Inc. to operate in compliance with the terms of the approved permit application and conditions specified in DEQ's November 15, 2004 permit letter.

RESPONSE: Admit.

REQUEST FOR ADMISSION NO. 6: Envirotank, Inc.'s solid was permit application dated July 15, 2004 describes the Envirotank, Inc. facility as "a tire processing facility" and gives the following details for Envirotank's "Operating Plan":

- up to 30 "raw" tires held in inventory at any one time;
- tires are slit into two pieces on a rotary table;
- the lower pieces are sold to be used for stock watering tanks;
- the upper portion, the sidewall or top, is sold "to be used in stacks' for livestock windbreaks;
- the tops are sold in larger lots (a dozen or more) for windbreaks;
- normally the facility stores up to 75 finished tanks and 200 finished tops

RESPONSE: Admit to each of the above bullet point provisions **except** as to the last provision to the extent it indicates that the permit application stated "normally the facility stores…200 finished tops."

REQUEST FOR ADMISSION NO. 7: Permit Condition #6 states that, as listed in Envirotank, Inc.'s application, not more than 30 "raw" tires, 75 unfinished tanks, and 200 tops shall be stored at any one time.

RESPONSE: Admit.

REQUEST FOR ADMISSION NO. 8: On or about April 3, 2006, Envirotank, Inc. submitted to DEQ an Application for Permit Transfer to transfer the permit for the "Envirotank, Inc., SHWS File #51.031 … scrap tire processing" facility located at 377 Clarkelen Road, Gillette, from John Hull to Michael Bulger, II.

RESPONSE: Admit.

REQUEST FOR ADMISSION NO. 9: By letter dated April 19, 2006, DEQ approved the transfer from John Hull to Michael Bulger of Solid Waste Operating Permit #51.031 for Envirotank, Inc. as initially issued November 15, 2004, and gave notice that the new operator would be responsible for complying with the November 15, 2004 permit and with the terms of the permit application approved in that permit.

RESPONSE: Admit.

REQUEST FOR ADMISSION NO. 10: Envirotank, Inc. remains the entity authorized by the April, 2006 permit transfer as requested by the parties to the transfer and as approved by the DEQ.

RESPONSE: Admit.

REQUEST FOR ADMISSION NO. 11: Neither the operating permit DEQ initially issued to Envirotank, Inc. dated November 15, 2004 nor DEQ's April 19, 2006 approval for the transfer of that permit authorized Envirotank, Inc. to deposit any whole scrap tires or tire parts, other than tire tanks or tire tops as described in Envirotank's approved application, at any location other than Envirotank, Inc.'s permitted facility or another permitted facility.

RESPONSE: Deny.

REQUEST FOR ADMISSION NO. 12: Envirotank, Inc. placed a total of approximately 725 whole tires of various sizes at the Lange Trust site between November, 2004 and November, 2007, approximately 350 of which were placed there after April 19, 2006.

RESPONSE: Deny as to the period before April 19, 2006. To the extent the Request involves events after April 19, 2006, Petitioner cannot confirm whether the figure of 350 tires is accurate as to the number of tires placed after April 19, 2006.

REQUEST FOR ADMISSION NO. 13: Envirotank, Inc.'s placement at the Lange Trust site between November, 2004 and November, 2007 of approximately 725 whole tires of various sizes and any scrap materials other than the lower halves used for stock water tanks or the upper portions ("tops" or sidewalls) for use in stacks for windbreaks, was not authorized by Solid Waster Operating Permit 51.031.

RESPONSE: Deny.

REQUEST FOR ADMISSION NO. 14: None of the approximately 725 whole tires of various sizes Envirotank, Inc. placed at the Lange Trust site between November, 2004 and November, 2007 (approximately 350 of which were placed there after April 19, 2006) were filled with earthen material.

RESPONSE: Admit as to events occurring subsequent to April 19, 2006, however, Petitioner has no knowledge of events occurring prior to April 19, 2006.

REQUEST FOR ADMISSION NO. 15: Envirotank, Inc. never applied to or received from DEQ a "beneficial reuse exemption" to deposit at the Lange Trust site for any purpose whole scrap tires or scrap tire parts not authorized by Solid Waste Operating Permit 51.031.

RESPONSE: Admit.

RESPONSE TO DEQ's FIRST INTERROGATORIES

INTERROGATORY NO. 1: If Envirotank, Inc. denies any portion of any admission requested above in DEQ's FIRST REQUEST FOR ADMISSIONS, please explain in complete detail the specific factual basis for each such denial.

RESPONSE:

Request for Admission No. 6: The original permit application, dated February 10, 2003 stated "normally, the facility stores...up to 1,000 finished tops." The first revised permit application, dated July 8, 2003, stated "normally, the facility stores...up to 600 finished tops." The second revised permit application, dated July 15, 2004, stated "normally, the facility stores...up to 200 finished tops."

Request for Admission No. 11: Petitioner has not identified any evidence that a permit is required for the activities allegedly not authorized by Solid Waste Operating Permit No. 51.031 or the 2006 approval of the permit's transfer.

Request for Admission No. 12: Petitioner has no personal knowledge of any facts or events occurring prior to April 19, 2006 when the permit was transferred from John Hull to Michael Bulger, II, and is therefore not qualified to comment on events occurring prior to April 19, 2006. Regarding whether 350 tires have been placed on the property after April 19, 2006, Petitioner has not been able to confirm the number of tires actually placed on the property because the landowner has not granted access to determine the number of tires, and the Bills of Lading do not contain sufficient detail to accurately assess the figure.

Request for Admission No. 13: Petitioner has no personal knowledge of any facts or events occurring prior to April 19, 2006 when the permit was transferred from John Hull to Michael Bulger II. As to events occurring after April 19, 2006, Petitioner has not identified any evidence that a permit is required for the activities allegedly not authorized by Solid Waster Operating Permit No. 51.031 or the 2006 approval of the permit's transfer.

INTERROGATORY NO. 2: Please identify the "other operators [who] have not faced this requirement" and explain the specific factual basis for the following allegation in ¶7 of Envirotank, Inc.'s Petition: "To now require removal of the tires for an alleged failure to seek an exemption, when *other operators have not faced this requirement*, is not only an abuse of enforcement authority, but inappropriate selective enforcement and an absurd result." (*Italics* added.)

RESPONSE: Based on information and belief, the agency has never required the deconstruction of beneficial agricultural windbreaks. Petitioner is not able to identify specific "other operators" at this time, but is seeking the identity of such "other operators" from DEQ in Petitioner's Discovery Request.

INTERROGATORY NO. 3: Please specify the "past practice" and "remedies" alleged in ¶9 of Envirotank, Inc.'s Petition: "Consistent with SHWD regulations and past practice, less costly, effective remedies are available."

RESPONSE: Drilling holes in the bottom sides of the tires to serve as water drains for mosquito control. *See* Letter, dated October 24, 2008, from Timothy Link, Environmental Scientist I, Solid and Hazardous Waste Division, DEQ, attached as "Petitioner's 1."

INTERROGATORY NO. 4: Please list each separate document that supports or was relied upon for Envirotank, Inc.'s answers to Interrogatories ##1–3 above.

RESPONSE:

- **Interrogatory No. 1**:
  - February 10, 2003 Application for Permit, attached as "Petitioner's 2";
  - July 8, 2003 Revised Application for Permit, attached as "Petitioner's 3";
  - July 15, 2004 Revised Application for Permit, attached as "Petitioner's 4";
  - 2004 Solid Waste Chapter 6 Operating Permit No. 51.031, attached as "Petitioner's 5."

- **Interrogatory No. 3**:
  - Letter, dated October 24, 2008, from Timothy Link, Environmental Scientist I, Solid and Hazardous Waste Division, DEQ, attached as "Petitioner's 1."

RESPONSE TO
DEQ'S FIRST REQUEST FOR PRODUCTION OF DOCUMENTS

REQUEST FOR PRODUCTION NO. 1: Copies of all documents listed in Envirotank, Inc.'s answer to DEQ's Interrogatory #4 above.

RESPONSE: See Petitioner's attached Exhibits.

REQUEST FOR PRODUCTION NO. 2: Copies of all documents specifying the dates and number of whole scrap tires and volume of scrap tire parts in each shipment of whole scrap tires and/or scrap tire parts Envirotank, Inc. took to the Lange Trust site.

RESPONSE: To the extent petitioner has such information, it is contained the various Bills od Lading and is attached as "Petitioner's 6."

DATED this 14th day of July 2011.

FOR Mary A. Throne (Wyo. State Bar No. 5-2699)
Throne Law Office, P.C.
211 West 19th Street, Suite 200
P.O. Box 828
Cheyenne, WY 82003
(307) 637-2822 Telephone
(307) 637-2873 Facsimile

ATTORNEY FOR PETITIONER

VERIFICATION

STATE OF COLORADO)
) ss.
COUNTY OF Weld)

I, Loren J. Weatherwax, being first duly sworn, depose and state: I am the Chief Executive Officer of Envirotank, Inc., Petitioner in the above-captioned action; I have read the foregoing responses to DEQ's Request for Admissions, Production of Documents and Interrogatories, know the contents thereof and believe the same to be true and complete.

Name: Loren J. Weatherwax
Title: CEO

SUBSCRIBED AND SWORN to me, this 14 day of July, 2011, by Loren J. Weatherwax, Chief Executive Officer of Envirotank, Inc., on behalf of the corporation.

Notary Public

My Commission expires: 11-13-2012

DARLENE I. PLENDL NOTARY PUBLIC STATE OF COLORADO

My Commission Expires 11/13/2012

CERTIFICATE OF SERVICE

This certifies that a true and correct copy of the foregoing DEQ'S FIRST DISCOVERY REQUESTS TO ENVIROTANK, INC. was served this 14th day of July 2011 by United States mail, first class postage prepaid, or by hand delivery and by email, addressed as follows:

Mary A. Throne (Wyo. State Bar No. 5-2699)

BEFORE THE ENVIRONMENTAL QUALITY COUNCIL
STATE OF WYOMING

In the Matter of the Appeal of Notice of Violation and Order #4824-11 Issued to: Envirotank, Inc. (51.031) P.O. Box 302 Ft. Lupton, CO 80621	)))))	Docket No. 11-5208A

PETITIONER'S RESPONSE TO DEQ'S SECOND REQUEST FOR ADMISSIONS

REQUEST FOR ADMISSION NO. 1: The initial Articles of Incorporation for Envirotank, Inc. were filed with the Wyoming Secretary of State's office 12/26/2001.

RESPONSE: Petitioner has no personal knowledge regarding whether the initial Articles of Incorporation were filed with the Wyoming Secretary of State's office on 12/26/2001 and, therefore, denies this request for admission.

REQUEST FOR ADMISSION NO. 2: To this date, the initial Articles of Incorporation for Envirotank, Inc. filed with the Wyoming Secretary of State's office 12/26/2001 [sic] have not subsequently been amended or replaced by new or different Articles of Incorporation.

RESPONSE: Petitioner has no personal knowledge regarding whether the Articles of Incorporation for Envirotank, were amended or replaced prior to March 10, 2006. Envirotank, Inc. admits that since March 10, 2006, Envirotank has not amended or replaced the Articles of Incorporation.

REQUEST FOR ADMISSION NO. 3: Since its initial filing with the Wyoming Secretary of State's office on 12/26/2001, Envirotank, Inc. has not relinquished or abandoned the corporate name "Envirotank, Inc." or consented to the use of that name by any other entity.

RESPONSE: Petitioner has no personal knowledge regarding whether Envirotank, Inc. relinquished or abandoned the corporate name "Envirotank, Inc." prior to March 10, 2006. Envirotank, Inc. admits that since March 10, 2006, Envirotank has not relinquished or abandoned the corporate name "Envirotank, Inc." or consented to the use of that name by any other entity.

REQUEST FOR ADMISSION NO. 4: Envirotank, Inc. has been engaged in essentially the same business since its initial filing with the Wyoming Secretary of State's office on 12/26/2001.

RESPONSE: Deny. Envirotank has no personal knowledge of the business activity of Envirotank from its initial filing date. At the time of its stock purchase in 2006, Envirotank's business consisted of converting giant OTR mining construction tires for use as beneficial agricultural products.

REQUEST FOR ADMISSION NO. 5: Envirotank, Inc. has been operating under the same solid waste operating permit (#51.031) from the DEQ since that permit was initially issued by letter dated November 14, 2004.

RESPONSE: Petitioner admits this is the permit Envirotank, Inc. was operating under on March 10, 2006. Petitioner has no personal knowledge regarding whether Envirotank, Inc. operated under this permit from November 14, 2004 through March 9, 2006.

REQUEST FOR ADMISSION NO. 6: The Envirotank, Inc. that was reinstated by the Wyoming Secretary of State's office on or about 11/13/2007 is the same corporate entity that it was at the time of its administrative dissolution effective 5/29/07.

RESPONSE: Deny.

REQUEST FOR ADMISSION NO. 7: The Envirotank, Inc. that was reinstated by the Wyoming Secretary of State's office on or about 4/15/2009 is the same corporate entity that it was at the time of administrative dissolution effective 6/9/08.

RESPONSE: Admit.

REQUEST FOR ADMISSION NO. 8: Envirotank, Inc.'s Application for Certificate of Reinstatement Following Administrative Dissolution dated 4/10/2009 that was filed with the Wyoming Secretary of State's office on 4/15/2009 was signed by L.J. Weatherwax as "C.E.O./ Pres."

RESPONSE: Admit.

REQUEST FOR ADMISSION NO. 9: Since its initial filing on 12/26/2001, the only corporate changes other than the two Applications for Certificate of Reinstatement Following Administrative Dissolution in 2007 and 2009 that Envirotank, Inc. has filed with the Wyoming Secretary of State's office have pertained to changes in the name or address of its Registered Agent in 2006, 2009 and 2010.

RESPONSE: Petitioner has no personal knowledge regarding corporate changes prior to March 10, 2006. Petitioner admits that since March 10, 2006 the only corporate changes other than the two Applications for Certificate of Reinstatement Following Administrative Dissolution

in 2007 and 2009 that Envirotank, Inc. has filed with the Wyoming Secretary of State's office have pertained to changes in the name or address of its Registered Agent in 2006, 2009 and 2010.

RESPONSE TO DEQ's SECOND INTERROGATORIES

INTERROGATORY NO. 1: If Envirotank, Inc. denies any portion of any admission requested above in DEQ's SECOND REQUEST FOR ADMISSIONS, please explain in complete detail the specific factual basis for each such denial.

RESPONSE:

Request for Admission Nos. 1, 2, 3, 5 and 9: Petitioner has no personal knowledge regarding Envirotank, Inc.'s activities prior to March 10, 2006, the date it acquired Envirotank, Inc.

Request for Admission No. 6: Petitioner states there was no administrative dissolution effective 5/29/07.

INTERROGATORY NO. 2: Please identify (name and location) the source(s) of scrap tires obtained by Envirotank, Inc. which Envirotank, Inc. subsequently took to the Lange Trust site for use as windbreaks beginning April, 2006.

RESPONSE: Envirotank objects to the extent this interrogatory seeks confidential business information. Envirotank further objects because it is unlikely to lead to information relevant to this case. Without waiving these objections, Envirotank obtained products from all OTR tire vendors and consumers who sought help with their specific scrap tire removal issues.

INTERROGATORY NO. 3: Please explain the specific consideration (what, how much, by whom, to whom) that was exchanged between the sources identified in Interrogatory #2 above and Envirotank, Inc. for scrap tires which Envirotank, Inc. subsequently took to the Lange Trust site for use as windbreaks beginning in April, 2006.

RESPONSE: Envirotank objects to the extent this interrogatory seeks confidential business information. Without waiving this objection, Envirotank and the OTR tire vendors and consumers occasionally shared the freight expense associated with shipping OTR tires to Envirotank's facility located at 377 Clarkellen Gillette, Wyoming.

INTERROGATORY NO. 4: Please explain the specific consideration (what, how much, by whom, to whom) that was exchanged between Brian Morgan or the Lange Trust and

Envirotank, Inc. for scrap tires which Envirotank, Inc. took to the Lange Trust site for use as windbreaks beginning in April, 2006.

RESPONSE: Envirotantk provided free material and constructed the windbreaks as requested by Brian Morgan, lessee.

INTERROGATORY NO. 5: Please list each separate document that supports or was relied upon for Envirotank, Inc.'s answers to each of the four Interrogatories above.

RESPONSE:

- Agreement to Buy and Sell Shares of Stock in Envirotank, Inc., a Wyoming Corporation, dated March 10, 2006.

RESPONSE TO
DEQ'S SECOND REQUEST FOR PRODUCTION OF DOCUMENTS

REQUEST FOR PRODUCTION NO. 1: Copies of all documents listed in Envirotank, Inc.'s answer to DEQ's Interrogatory #5 above.

RESPONSE: See Petitioner's attached documents.

DATED this 18th day of November 2011.

Mary A. Throne

Mary A. Throne (Wyo. State Bar No. 5-2699)
Throne Law Office, P.C.
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P.O. Box 828
Cheyenne, WY 82003
(307) 637-2822 Telephone
(307) 637-2873 Facsimile

ATTORNEY FOR PETITIONER

VERIFICATION

STATE OF COLORADO)
) ss.
COUNTY OF Weld)

I, Loren J. Weatherwax, being first duly sworn, depose and state: I am the Chief Executive Officer of Envirotank, Inc., Petitioner in the above-captioned action; I have read the foregoing responses to DEQ's Request for Admissions, Production of Documents and Interrogatories, know the contents thereof and believe the same to be true and complete.

Name: Loren J. Weatherwax
Title: CEO

SUBSCRIBED AND SWORN to me, this 18th day of November, 2011, by Loren J. Weatherwax, Chief Executive Officer of Envirotank, Inc., on behalf of the corporation.

Notary Public

My Commission expires: 11-13-12

DARLENE I. PLENDL NOTARY PUBLIC STATE OF COLORADO
My Commission Expires 11/13/2012

CERTIFICATE OF SERVICE

This certifies that a true and correct copy of the foregoing DEQ'S SECOND DISCOVERY REQUESTS TO ENVIROTANK, INC. was served this 18th day of November 2011 by United States mail, first class postage prepaid, or by hand delivery and by email, addressed as follows:

Mike Barrash
Sr. Assistant Attorney General
123 State Capitol Building
Cheyenne, WY 82002
mike.barrash@wyo.gov

Heather Jacobson
Jacobson Law Office, LLC
1839 Madora Avenue
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Mary A. Throne

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ATTORNEY FOR PETITIONER

mike barrash <mike.barrash@wyo.gov>

Envirotank- Supplemental Answers

1 message

Anabela Gomes <agomes@thronelaw.com> **Wed, Dec 21, 2011 at 3:49 PM**
To: Mike Barrash <mike.barrash@wyo.gov>, "Heather A. Jacobson" <hjlawoffice@wyoming.com>

Mr. Barrash and Ms. Jacobson,

Attached please find Supplemental Responses to Interrogatories Numbered 3, 4, and 5 of DEQ's Second Request for Admissions, Production of Documents and Interrogatories.

Anabela Gomes
Secretary

THRONE LAW OFFICE P.C.
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Natural Resource Lawyers for the Rockies

Envirotank's more specific answers to interrogatories.PDF
558K

DEQ Exhibit 47

Mary A. Throne (Wyo. State Bar No. 5-2699)
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ATTORNEYS FOR ENVIROTANK, INC.

BEFORE THE ENVIRONMENTAL QUALITY COUNCIL
STATE OF WYOMING

In the Matter of the Appeal of Notice of Violation and Order No. 4824-11 Issued to Envirotank, Inc. (51.031) P.O. Box 302 Ft. Lupton, CO 80621	)))))	Docket No. 11-5208A

ENVIROTANK'S SUPPLEMENTAL RESPONSES TO INTERROGATORIES NUMBERED 3, 4, and 5 OF DEQ'S SECOND REQUEST FOR ADMISSIONS, PRODUCTION OF DOCUMENTS AND INTERROGATORIES

Pursuant to Wyo. Stat. Ann. § 16-3-107(g) and Chapter II, Section 10(a) of the DEQ Rules of Practice and Procedure, Envirotank, Inc. ("Envirotank") hereby supplements its responses to the Wyoming Department of Environmental Quality's Second Request for Admission, Production of Documents and Interrogatories in accordance with Rules 33, 34 and 36 of the Wyoming Rules of Civil Procedure.

INTERROGATORIES

INTERROGATORY NO. 3: Please explain the specific consideration (what, how much, by whom, to whom) that was exchanged between the sources identified in Interrogatory #2 above and Envirotank, Inc. for scrap tires which Envirotank, Inc. subsequently took to the Lange Trust site for use as windbreaks beginning in April, 2006.

RESPONSE: Envirotank objects to the extent this Interrogatory seeks confidential business information. Without waiving this objection, Envirotank and the OTR tire vendors and consumers occasionally shared the freight expense associated with shipping OTR tires to Envirotank's facility located at 377 Clarkellen, Gillette, Wyoming. The arrangements between Envirotank, the OTR tire vendors, and consumers were negotiated on a case-by case basis and the terms, as a result, varied from customer to customer. Thus, the fee sharing arrangements occurred occasionally. Envirotank does not have any records regarding specific case-by-case arrangement and it has no information for the period prior to its purchase of Envirotank.

INTERROGATORY NO. 4: Please explain the specific consideration (what, how much, by whom, to whom) that was exchanged between Brian Morgan or the Lange Trust and Envirotank, Inc. for scrap tires which Envirotank, Inc. took to the Lange Trust site for use as windbreaks beginning in April, 2006.

RESPONSE: Envirotank provided free material and constructed windbreaks as requested by Brian Morgan, lessee, which allowed Envirotank to recycle products through the construction of local windbreaks and save on shipping expenses.

INTERROGATORY NO. 5: Please list each separate document that supports or was relied upon for Envirotank, Inc.'s answers to each of the four Interrogatories above.

RESPONSE: Agreement to Buy and Sell Shares of Stock in Envirotank, Inc., a Wyoming Corporation, dated March 10, 2006. No other documents were relied upon in answering the above Interrogatories.

DATED this 21st day of December, 2011.

Mary A. Throne

Mary A. Throne (Wyo. State Bar No. 5-2699)
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P.O. Box 828
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ATTORNEYS FOR ENVIROTANK, INC.

VERIFICATION

STATE OF)

COUNTY OF)

I, Loren J. Weatherwax, being first duly sworn, depose and state:

I am the Chief Executive Officer of Envirotank, Inc., Petitioner, in the above-captioned action; I have read the foregoing responses to Supplemental Responses to Interrogatories Numbered 3, 4, and 5 of DEQ's Second Request for Admissions, Production of Documents and Interrogatories, know the contents thereof and believe the same to be true and complete.

Name: Loren J. Weatherwax

Title: CEO

SUBSCRIBED AND SWORN to me, this day of December, 2011, by Loren J. Weatherwax, Chief Executive Officer of Envirotank, Inc., on behalf of the corporation.

Notary Public

DARLENE I. PLENDL NOTARY PUBLIC STATE OF COLORADO

My Commission expires: My Commission Expires 11/13/2012

CERTIFICATE OF SERVICE

I, Mary A. Throne, of Throne Law Office, P.C., hereby certify that on the 21st day of December 2011, I mailed a true and correct copy of the foregoing document, by e-mail, to the following:

Mike Barrash (WY Bar No. 5-2310)
Sr. Assistant Attorney General
123 State Capital Building
Cheyenne, WY 82002
307-777-6946
mike.barrash@wyo.gov

Attorney for Wyoming Department of Environmental Quality

Heather Jacobson
Jacobson Law Office, LLC
1839 Madora Avenue
Douglas, Wyoming 82633
307-358-3180
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Attorney for Intervenors

Mary A. Throne

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BEFORE THE ENVIRONMENTAL QUALITY COUNCIL
STATE OF WYOMING

In the Matter of the Appeal of Notice of Violation and Order #4824-11 Issued to: Envirotank, Inc. (51.0310) P.O. Box 302 Ft. Lupton, CO 80621	)))))	Docket No. 11-5208A

INTERVENORS' ANSWER TO DEQ'S FIRST DISCOVERY REQUESTS

Sandra Kay Lange, Mildred Rae Broyles and Peggy A. Sullivan, Intervenors, by and through their attorney, Heather A. Jacobson, Jacobson Law Office, LLC, hereby respond as follows to Petitioner Envirotank, Inc's First Requests for Admissions, Interrogatories and Request for Production of Documents in the above captioned matter.

DEQ'S FIRST REQUEST FOR ADMISSIONS

1. The January 16, 2009 letter to LeRoy Feusner from their attorney was the first written communication by or on behalf of the Intervenors to DEQ regarding the scrap tires placed at the Lange Trust site by Envirotank, Inc.

RESPONSE: Admit.

2. In agreeing to allow their lessee to install two "small windbreaks," Intervenors understood a "small windbreak" to be around sixty (60) feet in length.

RESPONSE: Admit.

DEQ'S FIRST INTERROGATORIES

1. If Intervenors deny any portion of any admission requested above in DEQ'S FIRST REQUEST FOR ADMISSIONS, please explain in complete detail the specific factual basis for each such denial.

RESPONSE: Not applicable.

2. Please describe specifically (size, shape, location) which two structures are the two scrap tire windbreaks authorized by the Intervenors.

RESPONSE:

The first windbreak was to be placed in the northern portion of the property close to the windmill. More specifically described as Section 14, Township 48 North, Range 73 West. The second windbreak was to be placed in the southern portion of the property close to the windmill. More specifically described as Section 23, Township 48 North, Range 73 West.
Each windbreak was to be 50 to 60 foot long, but the specific shape was not discussed.

3. Please explain the specific consideration (what, how much, by whom, to whom) the Intervenors agreed to when consenting to the scrap tire windbreaks requested by Mr. Morgan.

RESPONSE:

When Mr. Brian Morgan approached Intervenor Lange about the windbreaks he told her that Virgil Duha with Envirotank has some tires and it wouldn't cost anything.

4. Please list each separate document that supports or was relied upon for Intervenors' answers to each of the three Interrogatories above.

RESPONSE:

The prior responses were by memory only.

DEQ'S FIRST REQUEST FOR PRODUCTION OF DOCUMENTS

1. Copies of all documents listed in Intervenors' answer to DEQ's Interrogatory #4 above.

RESPONSE: Not applicable.

DATED this 17th day of November, 2011.

Sandra Kay Lange, as Trustee of the Sandra Kay Lange Trust, Peggy Sullivan and Rae Broyles, Intervenors

By: Sandra Kay Lange
Sandra Kay Lange, Intervenor

VERIFICATION

STATE OF WYOMING)
)
COUNTY OF CONVERSE)

I, Sandra Kay Lange, being first duly sworn, depose and state that I am an Intervenor in the above captioned action, that I have read the foregoing responses to DEQ's First Discovery Requests to Intervenors, know the contents thereof and believe the same to be true and complete.

Sandra K Lange
Sandra Kay Lange

Subscribed and sworn to before me this 17th day of November, 2011, by Sandra Kay Lange, Intervenor.

Witness my Hand and Official Seal.

TAMARA J. KELLEY
Wyoming
Notary Public, County of Converse
My Commission Expires
July 28, 2014

My Commission Expires:

Tamara J. Kelley
Notary Public

CERTIFICATE OF SERVICE

This certifies that true and correct copies of the foregoing INTERVENORS' ANSWER TO DEQ'S FIRST DESCOVERY REQUESTS were served this 17 day of November, 2011 by United States mail, first class postage prepaid, or by email addressed as follows:

Mike Barrash, Sr. Assistant Attorney General
123 State Capitol Building
Cheyenne, WY 82002
MBARRA@state.wy.us

Mary A. Throne
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BEFORE THE ENVIRONMENTAL QUALITY COUNCIL
STATE OF WYOMING

In the Matter of the Appeal Notice of	)	
Violation and Order #4824-11 Issued to:	)	
Envirotank, Inc. (51.031)	)	Docket No. 11-5208A
P.O. Box 302	)	
Ft. Lupton, CO 80621	)	

ENVIROTANK'S DESIGNATION OF EXPERT WITNESS-JAMES F. BOWLBY, JR.

COMES NOW Envirotank, Inc., by and through its attorney, Mary A. Throne, of Throne Law Office, P.C., and hereby designates the following expert witness:

1. James F. Bowlby, Jr.
   Senior Hydrologist
   Aquaterra Environmental Solutions, Inc.
   4643 S. Ulter Street, Suite 800
   Denver, CO 80237

Mr. Bowlby is a Senior Hydrologist. A copy of Mr. Bowlby's CV is attached as Appendix "A" in Exhibit "A" and incorporated fully herein by this reference. Mr. Bowlby may testify about his education and professional experience as a Senior Hydrologist in accordance with his resume. He will charge an hourly rate of $175.00 for his work in this matter and will charge this hourly rate for both deposition and hearing testimony.

Mr. Bowlby's opinions and the bases for those opinions are contained in his Expert Witness Report, attached hereto as Exhibit "A" and incorporated fully herein by this reference. Mr. Bowlby will testify about those matters and opinions and the bases for those opinions as contained in his Expert Witness Report. Mr. Bowlby may

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also testify about any subjects asked about or discussed in any deposition he may give in this matter.

2. Envirotank, Inc. reserves the right to supplement and amend the designation of this expert.

Respectfully submitted this 27th day of October, 2011.

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the foregoing *Designation of Expert Witness* was served by depositing the same in the US Mail, first class postage prepaid, and by email, on the 27th day of October, 2011, to the following:

John Corra, Director
Department of Environmental Quality
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EXPERT WITNESS REPORT
ENVIROTANK, INC.
WYOMING ENVIRONMENTAL QUALITY COUNCIL
SOUTH OF GILLETTE, WYOMING 82718

Aquaterra Project Number 04992.10
October 2011

Prepared For:

Throne Law Office P.C.

DEQ Exhibit 50

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ENVIROTANK, INC.
EXPERT WITNESS REPORT
ON BEHALF OF THRONE LAW OFFICE, P.C.
Mr. Jim Bowlby October 2011

1.0 BIOGRAPHY

I have more than 34 years' experience, 22 in consulting and 12 with the private mining industry in Sheridan, Wyoming. I have a B.S. degree (1975) from Colorado State Universtity (CSU) in Watershed Sciences and additional graduate work at CSU. My technical experience includes regulatory compliance, permitting, and agency negotiation; expert witness testimony; design and implementation of hydrogeological, hydrological, and sedimentation studies; watershed management projects; stormwater management; wetlands delineation and permitting; and reclamation/remedial design and implementation. I have also managed Phase I and II site assessments, compliance audits, and due diligence projects for manufacturing, construction, oil field, and mining properties; and property for transfer and mergers. I have led investigations and remedial evaluations for numerous private industry clients, State of Colorado municipal clients, U.S. Army, U.S. Air Force, U.S. Navy, and U.S. Environmental Protection Agency (EPA) Region 8. I am a hydrologist and an environmental permitting and regulatory compliance expert. I have been an operations manager, department manager, chief hydrologist, environmental services manager, ARCS program manager, Air Force base-specific contract manager, project manager, and principal-in-charge on a broad array of environmental and capital improvement projects. My qualifications resume is provided in Appendix A.

Over the past five years, I have presented several regulatory compliance seminars on a number of subjects including National Environmental Policy Act (NEPA), wetlands determination, storm water compliance, and U.S. Environmental Protection Agency (EPA) Storm Water General Permit for Construction Activities, and a number of related regulatory compliance topics. I have not prepared formal technical papers over the past five years.

I have provided deposition testimony for two clients over the past year. Under the direction of Featherstone, Petrie, DeSisto LLP., I provided a deposition in 2010 but no formal trial testimony for inactive surface uranium mine located near Spokane, Washington. The testimony concerned regulatory compliance from 1955 until 1981, and specifically dealt with water quality inputs and discharge issues. The case was settled without a trial.

In a second deposition and trial testimony in 2010 and 2011, respectively, under the direction of Waas Campbell Rivera Johnson & Velasquez, I provided expert testimony on redevelopment potential for a site that had been previously contaminated with chlorinated solvents, petroleum hydrocarbons, and other constituents in soil and groundwater. The Denver-area Regional Transportation District (RTD) condemned the property for the Light Rail West Corridor expansion, and the client contested the valuation by RTD. The case went to a trial and an opinion was rendered.

I have not provided other deposition or trial testimony over the past 5 years, other than written environmental regulation feedback to new or revised federal or state environmental regulations.

2.0 STATEMENT OF ISSUE

The subject property is owned by the Lange family and is located at 227 Bell South Road, south of Gillette in Campbell County, Wyoming. Based on a site reconnaissance and interview with the former lessee Mr. Brian Morgan, Envirotank Inc. (Envirotank) was contracted to place windbreaks and/or corrals at five locations on the property with large used off-road heavy equipment or mine truck tires. The windbreaks are located in Township 48N, Range 73W, Sections 14, 23, and 26. The five windbreak locations are shown on the topographic map (Figure 1) and on the aerial photograph (Figure 2).

The purpose of this expert witness report is to generally assess the regulatory framework and potential environmental impacts of the windbreaks constructed from used large off-road tires. It is my understanding that Envirotank merely responded to a business request from the lessee to build windbreaks with used mine vehicle tires at five locations and completed four of the five windbreaks at the time the original Letter of Violation was issued by Department of Environmental Quality (DEQ) on July 28, 2008.

The intent of this expert witness report is to complete the following:

- Document and briefly evaluate the history of the compliance issue
- Provide the results of the site reconnaissance and literature review
- Briefly evaluate the environmental impacts of the tires on soil, water, and air; based on the site reconnaissance, knowledge of the area, and existing literature
- Briefly discuss the issue of mosquito larvae breeding habitat
- Discuss the current reuse of tires in the area
- Provide expert opinions

Based on U.S. EPA data, over 290 million used tires are generated each year in the U.S. (Al Vick. 09/23/2011). As our waste disposal facilities struggle with the decisions regarding these tires, some facilities have banned tire disposal based on landfill capacity and waste volume. In fact, Envirotank contacted the Campbell County solid waste facility in 2008, and the landfill responded that they would not accept used tires for disposal. The Campbell County landfill, Department of Public Works, Ms. Marie Boyle, was contacted on October 19, 2011 regarding disposal of tires. Based on information provided by Campbell County, the landfill does not dispose of tires; rather they contract with Moore Services, a transportation recycler, to transport the tires to North Dakota to use as a fuel source in an incinerator.

Other landfills in Wyoming are reaching their capacity. In the City of Cheyenne, municipal solid waste is transported to the Weld County (Ault, Colorado) landfill due to space and capacity restrictions at the landfill. At the Wyoming Solid Waste and Recycling Association August 2010 and 2011 meetings in Wyoming, there was discussion about State guidance on solid waste disposal in Wyoming. It is our understanding that the State is looking at regionalizing three Subtitle D-compliant landfills (Sheridan, Cheyenne and Casper) and closing the smaller county landfills. Under the proposal, transfer stations will be constructed at these closed landfill facilities. Any disposal of suspect waste would have to be completed at these regional landfills and solid waste transported to these landfills.

Transporting solid waste off-site or out of state is costly. The size of the off-road tires presents difficulties in transportation and with the number of tires that can be transported at a time. With transportation costs increasing, the concerns for highway safety, wear-and-tear on equipment, fuel use, vehicular emissions, landfill capacity, and limitations of landfill availability for disposal; there are few options for used tires except for reasonable reuse or disposal.

The people of Wyoming have seen extreme economic fluctuations over the past 80-100 years. With that in mind, it has been my experience that the people of Wyoming, especially the ranching community, have a history of finding beneficial reuses of used and presumably waste materials. Having visited many ranchers in Johnson, Sheridan, and Campbell County over the past 34 years, I have witnessed used and waste materials put back to productive reuses such as livestock cattle controls, livestock water/feeding devices, erosion control along river banks, irrigation structures, and other innovative methods of reuse. This can include storage of these materials in the shop or corral equipment storage yard for future uses that are yet to be determined. Tires are commonly reused in the surrounding area and in agricultural and ranching settings. It seems logical that a viable reuse, without health and

safety and environmental consequences, of these used tires would be an appropriate approach.

The opinions rendered in this expert report are based on the information available at the time the report was submitted and represent my opinions, as an environmental permitting and regulatory compliance expert.

3.0 REGULATORY TIMELINE

Based on the available information, the windbreaks were placed at five locations between November 2004 and November 2007 (State of Wyoming DEQ April 18, 2011). In order to put the issue in perspective, a timeline of relevant decisions and documentations was developed from available and published information. The following is a summary of these decisions and documents reviewed for this expert witness report and for the expert opinions rendered.

Timeline

- 11/25/2003 – DEQ states position on permit requirements for beneficial use of tire bales in Wyoming.
- 11/15/2004 – Solid Waste Operating Permit # 51.031 issued to John Hull by DEQ.
- 11/2004 – Lange family began leasing property to Brian Morgan located at 227 Bell Road South of Gillette in Campbell County, Wyoming. United States Postal Service lists zip code as 82718-9350.
- 4/19/2006 – DEQ approved the transfer of the Solid Waste Operating Permit # 51.031 to Michael Bulger, Envirotank.
- From approximately November 2004 through November 2007 (DEQ NOV. 2011) windbreaks constructed on Lange property.
- 7/11/2008 – DEQ Solid Waste Guideline #21, Standards for Scrap Tire Management, issued.
- 7/28/2008 – Letter of Violation from the DEQ to Envirotank (under Permit # 51.031) in response to a complaint concerning an alleged unauthorized storage/management of large off-road scrap tires issued.

- 9/17/2008 – Letter from Envirotank to DEQ proposing hole drilling as an abatement method to prevent the possibility of mosquito larvae breeding habitat.

- 9/23/2008 – Follow-up letter to DEQ from Envirotank, Inc. presenting background information, restating the possible use of drilling holes in the tires to render them non-water holding, and information that the Campbell County Landfill would not accept used whole tires for disposal.

- 10/13/2008 – Letter to DEQ from Envirotank, Inc. providing notification that Envirotank is in compliance with the permit and that they have only been owners of record since Department approval on April 19, 2006.

- 10/24/2008 – Letter from DEQ to Envirotank, Inc. resolving the compliance matter once holes are drilled in the tires.

- 10/29/2008 – Letter from Heather A. Jacobson claiming Sandra Lange will not consent to any plan unless it includes total removal of the tires and/or scraps from the property.

- 11/11/2008 – Letter to Heather A. Jacobson informing her that the removal of the tires is not the obligation of Envirotank.

- 4/18/2011 – Notice of Violation and Order issued to Envirotank, Inc. by the DEQ.

The history of DEQ decisions on this matter has been inconsistent and varied. Among the various documents reviewed, the following policies and decisions concerning used tires changed from beneficial use, to solid waste only, to the Administrator can and has approved reuses of tires as a beneficial use. In 2008, the DEQ issued a Letter of Violation to Envirotank that had been apparently resolved by Envirotank proposing to drill holes in the whole tires to drain any potential standing water. Then in 2011, the DEQ issued a NOV to Envirotank, which is the subject of this hearing. The following sequence puts the inconsistencies in context.

On September 19, 1997, DEQ established a policy on tire bales (Mr. Dave Finley, Administrator Solid and Hazardous Waste Division [SHWD]). Based on the information available, the DEQ "determined that the use of tire bales as an alternative building material is a beneficial reuse of this solid waste".

Under the Wyoming Environmental Quality Act, the duties of the administrator of the solid and hazardous waste management division were established (W.S 35-11-502). In subsection (a) "No persons, except when authorized under the permit system established pursuant to this act, shall: (i) Locate, construct, operate or close a solid waste management facility". Through the research conducted for this expert report, I believe the windbreaks constructed from used off-road tires does not meet the definition of a solid waste management facility and this rule would not apply to the subject property as determined under Wyoming Solid Waste Management Rules and Regulations (SWMRR), Chapter 1, Sec. 1(f) (i) "A permit or a one-time or emergency disposal authorization is required for the location, construction, operation or closure of any new or existing solid waste management facility as specified by Chapter 1, Section 5, or by the applicable chapter(s) of these rules and regulations".

If it is determined that the windbreaks do not meet the definition of a solid waste management facility, permitting would not be required. In the event the Lange facilities meet the definition, I believe that the structures qualify as a beneficial use exemption as defined under SWMRR Chapter 1, Sec. 1(l)(xxi):

> The administrator may exempt the following from a permit or any requirement to obtain a waste management authorization under these regulations, provided that persons engaged in activities which are otherwise exempted may be required to supply information to the administrator which demonstrates that the act, practice, or facility is exempt, and shall allow entry of department inspectors for purposes of verification of such information:
> ...
> (xxi) The reuse of wastes in a manner which is both beneficial and protective of human health and the environment, as approved by the administrator.

In this case, it is my opinion the subject property meets the definition of a beneficial use. The information provided in this expert report will substantiate this opinion.

DEQ has approved the reuse of tires in the past. On May 06, 1998, stock feeders and water containers were approved by Mr. David Finley, Administrator SHWD, DEQ.

On November 25, 2003, The DEQ published a "Notice to Affected Parties" for the removal of solid waste exemption for tires and acknowledges that properly managed tire bales can be beneficial when used as a wind break for livestock, or as a fence under certain conditions that include the reduction of mosquito breeding habitat.

On September 12, 2008, the DEQ issued Guideline # 21 "Standards for Scrap Tire Management" that indicted the "Department will not approve whole scrap tires, tire shreds, or tire bales for use in windbreaks, fences, or other exposed applications. Envirotank had completed four of the five windbreaks when this guideline was issued. None-the-less, Section 5.1, (xxi) allows the "reuse of wastes in a manner which is both beneficial and protective of human health and the environment, as approved by the administrator". Even though this is not a statute or a regulation and is only a "guideline", it acknowledges that reuse is viable and the Administrator can provide approval.

On July 20, 2009, Mr. Carl Anderson, Administrator Solid & Hazardous Waste Division, approved the reuse of industrial tire sidewalls for building a snow fence, windbreak, and a section of a property fence. Mr. Anderson determined the proposed use constitutes a beneficial use per SWMRR Chapter 1 Section 1 (l) (xxi) and approved the application with three stipulations that included: no other tires can be used, the site must be cleaned up and tires disposed of properly in the event of a fire, and access will be granted to DEQ for inspections.

DEQ regularly approves the disposal of tires at mine sites without considering groundwater impacts. For example, the DEQ approved the mine permit application for the April 2010 Black Thunder Mine Permit. Black Thunder encouraged reuse of off-road tires in the permit application, and in the event no reuses could be found, the permit authorizes burial of the tires in the pit floor after recovery of the coal has ceased. This application, along with the coal mining permits, are regularly approved by DEQ and would indicate that DEQ does not consider the burial of tires to present a post mining groundwater impact.

This summary of events is based on information provided by legal counsel to Envirotank and through electronic records discovery, and is assumed to represent the actual events leading to the Notice of Violation (NOV) 04/18/2011. The opinions and recommendations are based generally on this timeline of activities and technical information readily available.

4.0 LITERATURE SUMMARY

Based on U.S. Environmental Protection Agency estimates, 290 million used tires (based on 2003 data) are generated annually in the U.S. (www.ehow.com/about_environmental_-impact-burying-tires.html). Recent estimates of used tires is in excess of 300 million annually. Modern tires are composed of single polymers or a blend of polymers with high molecular weight (styrene-butadiene, polymers), a small amount of natural rubber, fillers

(carbon black and zinc oxide for color and to control hardness), chemical vulcanizers such as mercaptobenzothiazole used in the production process, small additions of plasticizers and chemical protective agents such as antioxidants and antiozonants (Day April 13, 1993).

The following summarizes the regulatory framework and guidance for used (scrap) tires in Wyoming and assesses the designed application of these materials to the subject property and reuse of the tires for windbreaks. The summary also includes a literature review of environmental impacts, with particular emphasis on water, air, and fire hazards.

4.1 Definitions of Solid Waste and Disposal in Wyoming

In W.S. 35-11-502(a), "No persons, except when authorized under the permit system established pursuant to this act, shall: (i) Locate, construct, operate or close a solid waste management facility." Through the research conducted for this expert report, I believe the windbreaks constructed from used off-road tires do not meet the definition of a solid waste management facility and this rule would not apply to the subject property. Thus, a permit would not be required.

Even if the Lange property were subject to the requirement for a solid waste permit, I believe that it meets the requirements for a beneficial use exemption under SWMRR Chapter 1, Section 1(l)(xxi), as quoted above. As described in detail in the following, the reuse of tires at the Lange property is in a manner which is both "beneficial and protective of human health and the environment." In this case, it is my opinion that the windbreaks represent a beneficial use and do not pose a risk to human health and the environment, as constructed.

Solid waste is defined by the Wyoming Environmental Quality Act, W.S. 35-11-103(d)(i) and more specifically in Chapter 1, Section 1(e) of the SWMRR (www.deq.state.wy.us/shwd) as:

> Garbage, and other discarded solid materials, materials, including solid waste materials resulting from industrial, commercial, and agricultural operations, and from community activities, but, unless disposed of at a solid waste management facility, does not include:
> Solids or dissolved material in domestic sewerage or other significant pollutants in water resources, such as silt, dissolved solids in industrial waste water effluents, dissolved materials in irrigation return flows or other common water pollutants;
> Liquid, solids, sludges, or dissolved constituents which are collected or separated in process units for recycling, recovery or reuse including the

recovery of energy, within a continuous or batch manufacturing or refining process, or
Agricultural materials which are recycled in the production of agricultural commodities.

The subject property does not meet the definition of a solid waste disposal facility or a solid waste management facility in W.S. 35-11-103(d)(ii) defined as "any facility for the transfer, treatment, processing, storage, or disposal of solid waste."

The subject property is not intended for this purpose, rather the windbreaks and/or corrals are designed as a beneficial reuse and the subject property does not meet this definition.

Solid waste disposal is defined by SWMRR Chapter 1, Section 1(e) (www.deq.state.wy.us/shwd) as "discharge, deposit, injection, dumping, spilling, leaking, or placing of any waste material into or on any land or water so that such waste material or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including groundwaters."

The managed placement of reused tires for windbreaks and/or corrals does not meet the definition of disposal. The intent of placing the tires at the subject property is for a productive and beneficial use. The used tires are a valuable recycled product and are not being disposed.

Envirotank did not dispose of the used off-road tires, rather they were beneficially reused as a windbreak. As such, no permit is required since the materials were not disposed of at a solid waste management facility. Even if the reuse was determined to be a disposal of a solid waste, the subject property meets the definition of a beneficial use and would be subject to the exemption.

Envirotank placed recycled used off-road tires at the subject property and these tires are being put to a beneficial use. As such, the used off-road tires are not intended to be a solid waste. It is up to the discretion of the Administrator to determine that this is a valid beneficial reuse of the materials.

4.2 Wyoming DEQ Guidance # 21 Standards for Scrap Tire Management

The Wyoming DEQ Guideline # 21, developed under W.S. 35-11-502, was apparently prepared to provide guidance for scrap tire management in Wyoming under the Solid and Hazardous Waste Management Division. It is not a statute or a regulation, as defined under

Section 1.0 Introduction, paragraph 1 "This document provides guidance for the management of scrap tires in Wyoming". The justification for the guideline is identified in Section 1.0 Introduction, paragraph 3, where the DEQ has identified "scrap tires and tire bales where accumulation of tires have been a source of historic public complaints and problems in Wyoming resulting in unsightly appearance of tire piles, potentially uncontrollable tire fires, and the spread of West Nile virus from the mosquito habitat from accumulated tires".

It is my opinion that the reuse of tires may be unsightly to some and a beneficial reuse of a valuable product to others. While the windbreaks may result in a slight but insignificant increase in fire hazard, they certainly are not located near any facilities or structures and the potential for fire damage is very low.

Water does accumulate in the inner core of tires, but standing water is found in other sources in the area, including existing ponds, reservoirs, streams (when flowing), livestock watering tanks, and irrigation ditches (when flowing). A review of the two U.S. Geological Survey Topographic Quadrangle maps surrounding the subject property (Scaper Reservoir and Appel Butte) representing an area of 72 square miles, indicates approximately 69 identified stock ponds, reservoirs, or coal bed methane ponds. It is assumed that a majority of these ponds and reservoirs have been approved by the Wyoming State Engineers Office and may have been reviewed or approved by the DEQ itself.

The windbreaks on the Lange property represent a potential minimum source of standing water and mosquito habitat of approximately one per Section (1 square mile). Along with potential standing water in streams after a runoff event (snowmelt or rainfall), irrigation ditches, livestock watering troughs or holding tanks (some designed and constructed with used tires), and potential new ponds created by expanding coal bed methane development in the area, the quantity and location of the potential standing water in the tires, for mosquito larvae breeding habitat, is insignificant.

The justification for "cart blanche" disapproval of the use of scrap tires for use in windbreaks, fences, or other exposed applications is not justified or warranted. This decision should be based on existing statutes and regulations, Article 5 of the Wyoming Environmental Quality Act and the SWMRR, actual beneficial reuse, and at the discretion of the Administrator. In fact, the Guideline Section 5.1 quotes the beneficial use exemption from subsection (xxi) and allows: "The reuse of wastes in a manner which is both beneficial and protective of human health and the environment, as approved by the administrator". The reuse of tires on the Lange property is not a reuse of solid waste or a disposal in a solid waste management facility. Rather, it is beneficial and as demonstrated in the following sections,

the placement of the windbreaks and/or corrals are protective of human health and the environment.

4.3 Potential for Human Health and Environmental Impacts to Water, Land, and Air

The placement of the five windbreaks is on relatively level ground within a fenced area on private property and they are not directly in a stream or ephemeral channel, shallow groundwater does not appear to be an issue under the windbreaks sites, and no erosional features were observed from the windbreaks to the stream channels. There was also no apparent staining of soils in the vicinity of the windbreaks. The subsequent sections, observations, and opinions will also demonstrate that the tires will not have an adverse effect on human health and the environment, including emissions into the air or discharged into any waters, including groundwater.

There is a significant history of literature that reports the potential beneficial reuse of tires, either whole or partially cut tires, tires shreds, and pelletized rubber (crumbs) for ball fields and other recreational field uses. Along with site observations and an assessment of potential receptors, the literature and data will support the opinion that the tires have no significant impact on human health or the environment.

The following discussion provides a summary of the studies conducted to determine the potential health and safety and environmental impacts of used tires. It is a rigorous unbiased examination of literature, but is by no means a complete review.

The placement of tire chips within leachate columns was conducted (J&L Testing Company, Inc. May 31, 1989). Metals, pH, and some other constituents were tested. No appreciable change in chemistry was detected over the 90-day timeframe.

The levels of chemical leached from tires under the Toxicity Characterization Leaching Procedure (TCLP) was studied to determine the leaching characteristics of the tires (Rubber Manufactures Association. September 25, 1989). None of the rubber products tested, cured or uncured, exceeded proposed TCLP regulatory levels. Most compounds were detected at trace levels (near the method detection limits).

The organic and inorganic compounds resulting from the exposure of waste tires in roadbed fill applications that were exposed to different leachate chemicals were then analyzed (Twin City Testing Corporation. J.L. Zelibor. March 26, 1991). Results of chemical analysis for metals indicated that metals were found at higher concentrations when the pH in the extraction fluid is low (acidic conditions). The study reported that only in extreme

environments, such as acid mine drainage water, would have a pH as low as 3.5 as used in the study (Twin City Testing Corporation. J.L. Zelibor. March 26, 1991). The study results indicated that neutral (pH 7.0) or slightly basic conditions (pH 8.0), metal values fell within established standards for Minnesota. The extraction fluids for total petroleum hydrocarbons and polynuclear hydrocarbons indicated that the highest concentrations were observed using ammonia hydroxide (pH 8.0). Ammonia hydroxide is an unlikely component used in roadbed fill.

The Virginia Department of Transportation evaluated the leaching potential from scrap tires (November 18, 1992). Tires were shredded, and a TCLP analysis was conducted. Metals leached most readily at a pH of 4.0. The most abundant metal in the leachate was iron. Zinc was also readily leached at the low pH. At the higher pH levels (8.0) , carbon black and some oily material was detected and was consistent with the Twin City findings (March 26, 1991). The results of the TCLP test indicated that the concentrations of metals in the leachates were well below the regulatory limits, consistent with past studies (Rubber Manufactures Association. September 25, 1989).

Leaching of metals was evaluated by analyzing two types of samples from constructed reactors, soil and water (University of Maine. August 26, 1996). Based on this study, chromium, copper, iron, and manganese could be expected to leach from tires since they are components of the steel tire core and bead wire. The samples were collected after a rigorous acid digestion (TCLP) and as a result, the concentration of metals were higher in the soils sampled. Metals leached to water samples after the acid digestion were chromium, iron, manganese, and zinc. Organic compounds were not found at concentrations above the federal drinking water standards for the compounds. The reactor sampling did not mimic field conditions. For the field trench study, iron was found to be elevated in the groundwater samples collected. The iron did not appear to migrate downgradient of the sites. Manganese was also detected but the concentration was below the drinking water standard. At one location (peat), chromium was detected but well below the drinking water standard.

Two field trials were constructed to investigate the effect on water quality of tire chips placed above the groundwater table (Humphrey Dana N., Lynn E. Katz, and Michael Blumenthal. 1997). There was no evidence that tire chips increased the level of substances that have a primary drinking water standard. Under some conditions, iron levels may exceed their secondary drinking water standard. Manganese may exceed the secondary level, however, as reported both manganese and iron are naturally occurring in groundwater. For organic compounds, all result were below the method detection limit for all compounds.

One study summarized the impacts of used tires (Chelsea Center for Recycling and Economic Development. August 1998. Technical Report #2). Scrap tires are considered a major component of municipal solid waste and stock piling them can introduce serious issues. The study assessed the environmental findings of reuse and recycling scrap tires. In summary, concentrations of metals tend to appear at lower (acidic) pH conditions. Organics concentrations are detected under high (basic) pH conditions. Both the metallic and organic compounds were below the TCLP concentrations and scrap tires would not be a hazardous waste. When tire chips are spread over the ground, emission of volatile and semi-organic compounds (VOC and SVOC) can be emitted into the air when exposed to heat. Latex allergens have also been reported. Field studies (Minnesota Pollution Control Agency) did not identify significant differences between waste tire areas and control areas for soil samples and for a biological survey.

In a study in Maine (Humphrey Dana N. January 2, 1999), tire shreds did not cause the levels of metals to exceed the primary drinking water standard. The levels of organic and semi volatile organic compounds were all below the method detection limit.

In a second study in Maine (Humphrey Dana N. and Lynn E. Katz. March 16, 2001), tire shreds were placed above the water table and groundwater samples were collected. This study confirmed the result of the previous study. Most of the inorganic substances that can potentially leach from tires are naturally occurring at low levels in groundwater. There was some evidence that tire shreds could increase the concentrations of iron and manganese, but the shreds paced above the groundwater table had little impact on water quality for the near-neutral pH conditions. Organic compounds were below the method detection limits.

In a field study of tire shreds that were placed below the groundwater table (Humphrey Dana N. and Lynn E. Katz. November 2001 and Humphrey Dana N. and Michael Swett. November 29, 2006), the results showed a negligible effect on the concentration of metals with primary drinking water standards. Furthermore, concentrations of iron, manganese, and zinc were elevated but concentrations decreased to near background 0.6 to 3 meters downgradient from the test site. Trace concentrations of a few organic compounds were detected, but concentration were below the method detection limit for virtually all the samples collected from downgradient wells. The study concluded "tire shreds placed below the water table appear to have a negligible off-site effect on groundwater quality".

A study conducted by the Virginia Department of Transportation (Hoppe, Edward J., and Grigg Mullen. April 2004) concluded the use of shredded tires in highway embankments does not create an adverse environmental impact on groundwater quality.

Crumb rubber was studied to determine the toxicity from exposure in playgrounds and artificial turf playing fields (Ledoux, Thomas. June 2007). The study concluded with the exception of possible allergic reactions among individuals sensitized to latex, rubber and related products present no obvious toxicological concerns that would cause health effects in the normal population. This result was also reported in USA Today (Perez, A.J. June 3, 2009) where tests indicated the presence of inorganic chemicals, including lead, zinc, and benzene, but all below the federal safety standards. The article reported the results developed by the New York State Department of Environment Conservation and the New York Department of Health.

The inhalation hazard from artificial turf fields made from recycled crumb rubber (often derived from waste tires) was studied (Calrecycle accessed October 2010) (www.opa@calrecycle.ca.gov). The results of the California Office of Environmental Health Hazard Assessment concluded that the inhalation hazard (particulates matter and volatile organic compounds) were either below the health screening levels or similar to background concentrations in the surrounding area.

An aquatic testing study (Sheehan, P.J., J.M. Warmerdam, D.N. Humphrey, and S.M. Patenaude. Undated) indicated that for sites where the dissolved oxygen is greater than 2.0 mg/L and the pH is greater than 5.8, a buffer distance of tire shreds and adjacent surface water of 10 feet is sufficient to limit potential aquatic toxicity in streams. Dispersion and infiltration modeling show that at site where these geochemical conditions are not met, a buffer zone of 35 feet is adequate to limit potential aquatic toxicity for nearly all soil and groundwater conditions.

A literature review was conducted by the U.S. Environmental Protection Agency (EPA) (U.S. EPA. Wastes-Resource Conservation-Common Waste & Materials - Scrap Tires. September 6, 2011) to assess the reuse of scrap tires as subgrade fill and/or embankments. According to the EPA, the summary referenced many of the citations above. Several environmental studies have been performed to assess the potential for toxics to leach from tires when placed in wet soils. According to the EPA, the impact of the tires on the environment varies according to the local water and soil conditions, especially pH value. When the tires are placed below the water table and the groundwater is near neutral, "tire shreds have only a small impact on groundwater quality".

Summary

Most studies of scrap tires have been conducted for shredded or pelletized (crumb rubber) tires components. The windbreaks are comprised of whole tires and tire tops; thus the surface area for exposure to leaching is much lower. Studies indicate that leaching of tire

shreds have resulted, in certain circumstances, in increased levels of iron, manganese, and sometimes zinc under acidic conditions. Organic compounds are typically not detected under field conditions, but can be leached under basic (pH 8.0) conditions. Soil conditions and groundwater in the area south of Gillette, Wyoming are typically neutral or slightly basic, not acidic. Therefore, the potential for leaching metals is low. The tires are not located near a surface water drainage and groundwater under the site is expected to be very deep. As such, no impacts to water (surface or groundwater) are anticipated.

Few studies have been conducted to assess the impacts on air quality, but an increase in particulates as the tires degrade and possible volatilization of organic and semi organic compounds is possible under very hot (especially fire) conditions. These compounds diffuse quickly into the atmosphere and would only be a potential but insignificant impact if there was a residence adjacent to the windbreaks. The windbreaks are located in a very low residential density and ranchland area, therefore, no residences are expected to be impacted. Also, the inhalation hazard (particulate matter and volatile organic compounds) from crumb rubber (typically used on artificial recreational fields) were either below the health screening levels or similar to background concentrations in the surrounding area. Thus, the inhalation hazard from whole or tire tops would also be negligible.

4.4 West Nile Virus

DEQ has expressed concerns (Guideline #21) that accumulation of water in the tires could result in breeding habitat for mosquito larvae that may carry the West Nile Disease. My expertise is not disease control, since I am not a medical doctor, however certain facts can be reported from literature.

Based on information provided by the Center for Disease Control (CDC) (CDC October 17, 2011) in the West Nile Virus Fact Sheet, the risk of infection from West Nile Disease is highest during mosquito season (until freezing temperatures occur). There is no specific treatment for the West Nile Disease virus infection. The CDC recommends first monitoring bird populations (since birds are most commonly affected) that are sick or have died. Second, control stagnant water, especially if it is nutrient laden. Third is the use of widespread mosquito control efforts, including the use of spraying and larvacide that can be effective.

The infection is carried from infected birds to people by mosquitos; there is no evidence for the transmission from people to people (Medicinenet. accessed 10/17/2011 (www.cdc.gov/ncidod/dvbid/westnile/wnv_factsheet.htm; http://www.medicinenet.com/west_nile_encephalitis/article.htm).

Based on the CDC Fact Sheet, there are no confirmed cases of West Nile Disease in Campbell County, Wyoming (www.cdc.gov/ncidod/dvbid/westnile/USGS_frame.html).

Water does accumulate in the inner core of some whole tires. Based on the site reconnaissance, whole tires comprise roughly ½ of the total tires at the windbreaks and approximately ½ of the tire inner rims contained some standing water. But standing water is also found in existing ponds, reservoirs, streams (when flowing), livestock watering tanks, and irrigation ditches when flowing. A review of the two U.S. Geological Survey Topographic Quadrangle maps surrounding the subject property (Scaper Reservoir and Appel Butte) representing an area of 72 square miles, indicated approximately 69 identified stock ponds, reservoirs, or coal bed methane ponds. It is assumed that a majority of these ponds and reservoirs have been approved by the Wyoming State Engineers Office and may have been reviewed or approved by the DEQ itself. These standing water sources are also potential mosquito larvae breeding habitat in the area.

Based on this review of the most recent CDC information, there were no reported cases of the West Nile Disease virus reported in Campbell County and there are many existing sources of standing water for breeding mosquitos in the area. There is a potential for standing water is some of the tires in the windbreaks, however, based on the prevalence of other water sources in the area, the tires present an insignificant level of breeding habitat for mosquitos. In the event abatement would be required, options are presented in "POTENTIAL REMEDIES".

4.5 Fires

Under certain circumstances, used tire windbreaks do present a minor increase in fire hazard, however, the windbreaks are on private land within secured and fenced areas in livestock grazing and grassed areas. There are no structures in the immediate vicinity of the windbreaks. For the tires to ignite, they would have to be directly ignited by a lightning strike or be deliberately sabotaged. It is possible, but doubtful, a grass fire would be hot enough to ignite the tires. It would seem the potential to ignite the reused tire windbreaks and to impact any structures would be remote and the impact is insignificant.

5.0 SITE RECONNAISSANCE

A site reconnaissance was conducted on September 30, 2011. Mr. Brian Morgan, former lessee, and Ms. Mary Throne, attorney, accompanied me on the reconnaissance of the five

windbreak areas. A photographic log is provided as Appendix B-1. All five windbreak locations were examined, along with the proximity to natural water bodies and ephemeral stream channels. The integrity of the tires was examined and appeared to be in good condition. One incomplete windbreak pile of tires (locations # 05) was observed. Based on the discussion with Mr. Morgan, the windbreak completion was discontinued when the 2008 Letter of Violation was received from DEQ and the tires remain on-site.

5.1 Interview with Former Lessee

An interview was conducted with Mr. Morgan prior to the site reconnaissance. Mr. Morgan contracted with Envirotank to build the windbreaks. Mr. Morgan stated that the landowner provided permission to build windbreaks. All the windbreaks were constructed between November 2004 and November 2007 (DEQ NOV and Order 2011). Three were completed as windbreaks, and one as a windbreak/corral. In addition, one was not completed but the tires were delivered to subject property and only a few tires were stacked.

The placement of the windbreaks were based on practical applications. Mr. Morgan observed that cattle typically huddled at the southeastern corner of a field, since the wind is predominantly from the northwest and north Thus, they were constructed at the southeast corner of fields and downwind to maximize protection of the cattle. Four of the five locations are within site of the Bell Road or improved ancillary access roads, and easily accessible. One site (Windbreak locations #2) is located approximately ¼ mile west of the Bell Road and can be accessed during dry weather conditions, from a primitive ranching road.

Mr. Morgan indicated that the tires work well as a windbreak, and he was not aware of any noticeable problems with the four constructed windbreaks on the subject property or other windbreaks in the area on other properties.

He indicated that Envirotank did not complete Windbreak location #5, since Envirotank received the Letter of Violation (July 2008) from DEQ and they stopped work accordingly, pending resolution of the issue.

5.2 Site Reconnaissance Observations

Each of the five windbreak locations were examined and a photolog was developed during the site reconnaissance activities (Photolog B-1). The windbreaks were constructed and were operational at four of the five locations. At Windbreak location #5, the tires were delivered to the site but the windbreak had not been fully constructed.

The tires appeared to function as designed. In fact, vegetation percent cover downwind from the windbreaks appeared to be slightly enhanced, most likely the result of acting as a snow fence and providing additional soil moisture during the initial growing season (April and May). This observation was confirmed by Mr. Morgan.

Windbreak #1 was designed as a windbreak and a corral. The tires include whole and tire tops stacked 4 to 6 high to a height of roughly 5 to 7 feet above the ground surface and on relatively flat topography. The site also includes corral fencing and gates. The windbreak was 100 percent in-tact and in good condition. There was no staining (red for iron or black for manganese) in the soils adjacent to the tires. The tires were exposed and not covered with soil. The windbreak is visible from Bell Road. In fact, during the site reconnaissance, the corral was being used by local ranchers as viewed on horseback (see photolog B-1, photo # 4).

Windbreak #2 was designed as a windbreak only. The tires include whole and tire tops stacked four to six high to a height of roughly five to seven feet above the ground surface and relatively flat topography. The windbreak was 100 percent in-tact and in good condition. There was no staining (red for iron or black for manganese) in the soils adjacent to the tires. The tires were exposed and not covered with soil. The windbreak is not visible from Bell Road.

Windbreak #3 was designed as a windbreak only. The tires include whole and tire tops stacked four to six high to a height of roughly five to seven feet above the ground surface and relatively flat topography. The windbreak was 100 percent in-tact and in good condition. There was no staining (red for iron or black for manganese) in the soils adjacent to the tires. The tires were exposed and not covered with soil. The windbreak is visible from an ancillary private access road west of Bell Road.

Windbreak #4 was designed as a windbreak only. The tires include whole and tire tops stacked four to six high to a height of roughly five to seven feet above the ground surface and relatively flat topography. The windbreak was 100 percent in-tact and in good condition. There was no staining (red for iron or black for manganese) in the soils adjacent to the tires. The tires were exposed and not covered with soil. The windbreak is visible from Bell Road.

Windbreak location #5 consists of primarily used tires not yet constructed as a windbreak. A few of the tires had been stacked as a windbreak but the windbreak had not been fully constructed. The used tires that were stacked include whole and tire tops stacked three to four high to a height of roughly four to six feet above the ground surface and relatively flat topography. There was no staining (red for iron or black for manganese) in the soils

adjacent to the tires. The tires were exposed and not covered with soil. The windbreak is visible from Bell Road.

Based on the site reconnaissance, whole tires comprise roughly ½ of the total tires at the windbreaks and approximately ½ of the tire inner rims contained some standing water. All five windbreak areas are within fenced livestock grazing areas on private land. The four completed windbreaks were in-tact and in good condition. There was no staining (red for iron or black for manganese) in the soils adjacent to the tires. There was no soil rilling, downcutting, or erosional features emanating from the windbreaks.

5.3 Soil Type and Runoff Potential

The basic soil types in the vicinity of the windbreaks were identified from the U.S. Department of Agriculture, Natural Resources Conservation Service, Soil Survey and Map for Southern Campbell County, Wyoming, February 12, 2010. The predominant soils are identified as:

166 - Jaywest loam
223 - Ucross loam
224 - Ucross-Iwait loams
225 - Ucross-Iwait-Fairburn loams

These soil types all are well drained, a range of low to high infiltration capacity, show no frequency of flooding, and have a depth to groundwater exceeding 80 inches (6.67 feet). In addition, the Ucross loam and Ucross series has a restrictive feature that bedrock is encountered at a depth of 20 to 40 inches.

This assessment indicates that the soils are not in a flood zone, groundwater is deep, and the bedrock is encountered in the Ucross series at a relatively shallow depth. The runoff potential varies (based on the infiltration capacity), but is limited.

Based on the site reconnaissance, there was no soil rilling, downcutting, or erosional features emanating from the windbreaks. Based on the flat topography and soil types, there is little potential for concentrated surface water runoff. Therefore, it was assumed that, based on the low annual precipitation in the area, no erosional features, and distance from the surface water features, that surface runoff was not generated in the vicinity of the windbreaks that would be capable of reaching the surface water features.

5.4 Potential Flow Path to Surface Water Receptors

All four windbreaks and the unassembled pile of tires are located in an area that is relatively flat, within the confines of a livestock grazing fenced area. Bluegate Creek and Moser Draw are the most prominent surface water features in the area. These channels are ephemeral, and flow in response to precipitation and snowmelt runoff. Neither Creek had flowing water during the site reconnaissance activities.

The five areas are sufficiently far away from the ephemeral drainages or tributaries to be protective of surface water quality. Based on the topographic map (Figure1) and observations, the minimum distances to the stream channels are as follows:

Windbreak #1: 75 to 100 feet from Bluegate Creek
Windbreak #2: 50-60 feet from the ephemeral tributary to Bluegate Creek
Windbreak #3: Private access road prohibits runoff to the tributary to Bluegate Creek and is approximately 50 feet from the Creek
Windbreak # 4: 90 to 100 feet from Moser Draw
Windbreak #5 (unassembled): 110 to 120 feet from Moser Draw

Based on the distance from the creeks and tributaries, soil types (loam), and the site observations that there are no defined channels or erosional features emanating from the windbreaks, there is no significant threat to surface water quality from the tires.

5.5 Potential Flow Path to Groundwater Receptors

Along ephemeral stream courses tributary to and including Bluegate Creek, shallow groundwater could be encountered seasonally at depth of less than 20 feet. This potential groundwater would be confined to the local alluvial/colluvial deposits themselves, identified as less than 100 feet in width in the vicinity of the windbreaks. Based on the review of the Groundwater Atlas of The U.S. (U.S. Geological Survey, accessed 10/2011), there are no significant alluvial aquifers in the vicinity of the subject property and the presence of shallow groundwater, based on the composition of the ephemeral drainages, soil types, and distance from the drainages, at the windbreak locations in not likely.

Groundwater is encountered in the area in Lower Tertiary aquifers and in some locations along the edges and outcrops of the Powder River Basin, in the lower geological unit that is located stratigraphically below the Lower Tertiary, the Upper Cretaceous aquifers (U.S. Geological Survey, accessed 10/2011). For the Lower Tertiary formation, the aquifers consist mainly of sandstone beds and localized coal seams in the Fort Union Formation. The Fort Union also includes interbedded fine grained sediments (shale) that exhibits a very

low permeability and is an aquatard to downward movement of water. Wells in the underlying aquifers are typically 300 to 900 feet deep. Wells in the Upper Cretaceous aquifers can be completed at depths of less than 300 feet in interbedded sandstone but typically are only along the edges of the Powder River Basin where the coal is burned at the surface (known as clinker). The aquifers associated with the Upper Cretaceous are typically saline in their deeper parts (U.S. Geological Survey, accessed 10/2011). The subject property is located approximately in the geographic middle of the Powder River Basin. Therefore, groundwater in these aquifers is deep and infiltration is limited due to the predominance of interbedded shale.

Based on the distance from the limited lateral and vertical extent of the alluvium/colluvium associated with the creeks, limited infiltration capacity from fine grained sediments (shale), the distance from the creeks, and the depth of underlying aquifers, there is no threat to groundwater from the tires.

Based on the soil types, observations during the site reconnaissance, distance from creeks and tributaries, and the apparent lack of groundwater underlying the windbreaks, there is no or an insignificant potential for the tires to impact water at the site. Any impacts to soils would be local and insignificant and no discoloration of the soils were identified during the site reconnaissance.

6.0 REUSE OF TIRES

In my opinion, the reuse or recycling of used tires, as stated in the NOV by DEQ, is not "storage and management of a solid waste material" and would be outside the scope of the permit requirements for a solid waste management facility. Alternatively, the tires are being reused and if a permit is required, the windbreaks would qualify for an exemption as a beneficial use, as defined SWMRR Chapter 1, Section (l) (xxi).

After conducting the site reconnaissance, I surveyed other uses of whole tires south of Gillette and north of Bill, Wyoming. The results are provided in Photolog B-2. I found that used whole tires are being reused in day-care center playgrounds (two locations), for protective barriers, for stock watering and feeding, and for other agricultural uses. In most applications, whole tires or tire tops were reused. The survey focused only on the area along and near State Highway 59, from Gillette to Bill, Wyoming. It was obvious, that with mining prevalent in the area and the desire to reuse materials that would otherwise end up as a waste (and landfilled or shipped out of state), local ranchers and residents are seeing the tires as valuable and safe. These other applications of used tires are similar to the

reuse of whole or tire tops for windbreaks or corrals, except for the number of tires used in the windbreaks.

In preparation of this expert report, the disposal of used tires in a mining application was examined. This was an important finding since mines are closely scrutinized by the DEQ and operate under approved permits. We found that mines typically discard the tires at the floor of the mine or in the mined out pit, with no regard to groundwater or other conditions. In the case of the mine permit application dated April 2010 Section MP-3.7 and approved by DEQ, the Black Thunder Mine (233 Permit to Mine) south of Gillette has reported "Disposal in the solid waste dump is appropriate for a large percentage of the wastes generated at the Black Thunder Mine. Large Off Road Vehicle Tires may be disposed on the pit floor, as described under subsection MP-3.7.3 below". Section 3.7.3 identifies the preferred method of disposition of off-road vehicle tires is to reuse or recycle the tires, to take advantage of the resource. Tire may be disposed, when there is no reuse option, on the pit floor after salvageable coal is removed and covered in a timely manner, either by cast blasting or by haul trucks covering them with backfill. Final burial depth will be no less than 75 feet of backfilled overburden.

This practice of dealing with used tires is commonly approved by DEQ. There was no stipulation that the tires be placed above the groundwater table, just that the tires be placed in the floor of the pit. Since this practice appears to be commonly accepted by DEQ, we have assumed that the DEQ does not believe that the disposal of used tires will have an impact on post-mining groundwater quality.

In the adjacent state, Colorado, the Colorado Department of Public Health and Environment (CDPHE) allows the reuse of tires under the CDPHE Hazardous Materials and Waste Management Division (HMWMD) (6 CCR, 1007-2) regulations for solid waste sites and facilities. Section 8, Recycling, 8.2.1 indicates "The Department recognizes that many materials that are found in the solid waste stream have the potential to be recycled or reused in commerce." As such, CDPHE allows the administrator to allow other uses of tires, rather than landfilling and disposal as a solid waste. In an e-mail communication between Envirotank and the CDPHE (September 26, 2011) Mr. David Snapp explained that the CDPHE HMWMD has determined that the reuse of tires is authorized by responding that "the use of waste mining tires as windbreaks and livestock feeders to be a beneficial use when there is an actual need for those items. Care should be taken to prevent ponding of water within the waste tires and to prevent the waste tires from catching on fire. Also, the proposed uses must be allowed by the local governing authority". In Colorado, the reuse of tires is considered a beneficial use.

When not managed properly, waste tires can present a hazard. Tire Mountain located north of Hudson, Colorado is an example of poor management of used tires. As reported by the Denver Post (October 20, 2011), Tire Mountain is one of the if not the largest waste tire pile in the country. Attempts to sell the tires for fuel to foreign countries has repeatedly failed and the owners are being investigated for fraud. It would seem that the reuse as a windbreak would be a more appropriate use than disposal or storage for future use as a fuel. Campbell County reportedly transports it's used tires from the landfill to North Dakota for use as a fuel in an incinerator. It was not reported if the net fuel consumption for the transport of the tires was more or less than the fuel value of the tires themselves at the incinerator.

It would seem that the reuse of tires for windbreaks, corrals, or snow fences would be a more appropriate beneficial use than for fuel or disposal in a landfill.

7.0 POTENTIAL REMEDIES

The large off-road used tires are a beneficial use. Envirotank was asked to construct the windbreaks at the five locations by the lessee. The cost of removal of the tires was estimated, by Envirotank, to be on the order of $350,000, plus the cost of labor and materials to load the tires at the five locations for transport. This would be an undue cost to Envirotank.

Over the past 20 years, recycling and reuse has been emphasized in the country, but it has always been at the core of the Wyoming ranching and farming communities. Our Subtitle D permitted solid waste disposal landfills have space and capacity limitations and are filling up. Many, such as Campbell County, do not accept tires for disposal. Rather, they employ costly and exotic methods to rid themselves of the nuisance (such as transporting tires to Colorado and North Dakota).

The windbreaks are located away from surface water bodies and groundwater is presumed to be too deep to be impacted. Abatement for the control of mosquito larvae breeding habitat could be considered and in fact, the DEQ previously approved the drilling of holes in the whole tires that could abate the accumulation of standing water (approval by DEQ 2008). Other mosquito larvae control could be considered.

I do not believe that the DEQ has identified other impacts from the windbreaks on human health and the environment. Based on my opinion, there is no indication, from my literature review and site observations, that there are any significant impacts.

8.0 SUMMARY AND OPINIONS

Based on the literature reviewed, there were 290 million used tires generated in 2003 and estimates for 2011 are over 300 million. Our solid waste disposal facilities are filling up and space is a valuable asset. In fact, the Cheyenne, Wyoming landfill is trucking its solid waste, including used tires, to Colorado due to space restrictions. Campbell County is transporting its used tires to North Dakota to be burned in an incinerator. Today, there is an increased emphasis in recycling by the solid waste management industry, particularly to recover the reusable products (such as paper, plastics, aluminum, and other compounds) and to maximize the space of existing landfills. In fact, these materials are recycled at my house, curbside, and to make it convenient and accessible, there is little need to segregate these wastes. As such, all of my neighbors support and participate in curbside recycling. Permitting new landfills is a costly enterprise, and in a way, the waste disposal facilities are maximizing their return on investment by recycling, while meeting the needs and desires of the public.

Reusing tires, especially large off-road mining and large equipment tires, is a beneficial use. The ranching community in Wyoming has found various uses for the tires, including windbreaks, corrals, stock watering tanks, playgrounds, and protective barriers. These uses are appropriate and are innovative.

In reviewing the decisions of the DEQ and subsequent guidance on used tires (Guideline # 21), in my opinion, it appears that the DEQ may have exceeded its authority in dictating a NOV for the reuse of the tires as windbreaks without considering the beneficial reuse derived. The mere title of the guideline "Standards for Scrap Tire Management" implies the tires are a waste to be handled as such. In fact, the DEQ Administrator has the authority to determine that the tires used as windbreaks are a beneficial reuse.

It is understandable that some residents may deem the windbreaks unsightly. When touring around Wyoming, I see many ranching and farming remnants that may also seem unsightly but I respect that ranchers' and farmers' right to put used products to beneficial reuse. There is also significant coal mining development, oil and gas development, and recently coal bed methane development in the region that some may consider to be unsightly.

No significant impacts to human health and environmental impacts have been reported. The windbreaks are located on relatively flat ground and there was no staining of soils that was identified during the site reconnaissance. The locations of the windbreaks are adequately removed from surface water features and there was no evidence that runoff from

the windbreaks discharged to any surface water bodies. Shallow groundwater is typically only associated with the actual stream alluvial/colluvial sediments, and would be localized and seasonal. Aquifers under the subject property would be deep and infiltration of water is restricted by underlying fine sediments (shale) of the Fort Union Formation. Studies on the impacts of crumb (pelletized) rubber at recreational field have indicated that the inhalation hazard would be negligible. Air quality impacts would also be negligible, since there are no receptors in the vicinity of the windbreaks and any contaminants would disperse easily. There would be a minor increase in fire hazard, but it is unlikely since the windbreaks are located far away from structures or inhabited dwellings.

Whole tires can retain ponded water after a rainfall or snowmelt runoff event. Standing water can contribute to mosquito larvae breeding habitat and the possibility of the West Nile Disease virus. There are many larger sources of standing water in the area. Many of these sources are stock ponds and reservoirs that have been approved by the State of Wyoming for the intended use. By far, these other sources of standing water present far more breeding habitat for the virus. Luckily, there have been no reported CDC cases of West Nile Disease in Campbell County. In any event, there are remedies that could be considered.

It is my opinion, that the constructed windbreaks are a reuse of off-road tires, and not disposal of a solid waste to a solid waste management facility. In any event and at a minimum, the windbreaks would qualify as a beneficial use under the Wyoming solid and hazardous waste regulations previously referenced.

It is my opinion that the reuse of whole or rubber tire tops from large off-road vehicles is an appropriate beneficial reuse of the tires. The condition of the windbreaks was good and all four of the constructed locations were in-tact. The conditions of the windbreaks could be inspected by DEQ periodically if the long term viability is a concern. Envirotank should construct the Windbreak location #5 or remove the tires, since this could be interpreted by DEQ, as time elapses, as inappropriate dumping of a solid waste.

Human health and environmental impacts (to land, water, and air), based on the site observations and literature reviewed, are assumed to be negligible. For the control of mosquito larvae breeding habitat and West Nile Disease, the water could be drained from the tires by drilling holes in the whole tires or the application of a larvacide to the inner portions of the whole tires could be considered. With all the other source of mosquito larvae breeding habitat (standing water) in the area, especially with the expansion of coal bed methane development and produced water issues, it would seem that any remedy required by DEQ would have no impact on the mosquito population in the area.

It is my opinion that the windbreaks should remain in-place as they provide a valuable reuse of the large off-road tires that are typically generated at construction sites and at the coal mines in the area.

Sincerely,
Aquaterra Environmental Solutions, Inc.

Jim Bowlby
Senior Hydrologist
Regulatory Expert

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