

US EPA ARCHIVE DOCUMENT

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 1

STATE OF MICHIGAN
IN THE COUNTY OF JACKSON

HAYSTEAD #9 SALTWATER DISPOSAL
INJECTION WELL PERMIT FOR
UNDERGROUND INJECTION OIL

PUBLIC HEARING
April 30, 2013
Brooklyn, Michigan
William Bates, EPA Hearing Officer

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US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 2

APPEARANCES

William Bates, Hearing Officer,
Environmental Protection Agency
Timothy Elkins, Environmental Protection Agency
Jeffrey Wawczak, Environmental Protection Agency
Patricia Krause, Community Involvement Coordinator,
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US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 3

1 (7:00 p.m.)

2 MR. BATES: Will the hearing come to order,
3 please.

4 Good evening, I'm William Bates. I'm an
5 environmental scientist with the United States
6 Environmental Protection Agency. Tonight I'm the
7 hearing officer representing EPA for this public
8 hearing.

9 With me are two other environmental
10 scientists with the EPA, Tim Elkins, who is the author
11 of the draft underground injection control permit, and
12 Jeff Wawczak. Also with me, is Pete Cassell, a public
13 affairs specialist with EPA, and Patricia Krause, a
14 community involvement coordinator with EPA.

15 We are here to listen to your comments
16 regarding a permit EPA has proposed to issue to West
17 Bay Exploration Company for a Class II injection well
18 located in Norvell Township, Jackson County.

19 The permit which is the subject of
20 tonight's hearing is being proposed issued pursuant to
21 Federal Underground Injection Control Program for the
22 State of Michigan, which may be found in the Code of
23 Federal Regulation at Title 40, Section 147.1151.

24 This section was promulgated pursuant to Part C of the
25 Safe Drinking Water Act. It incorporates the

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 4

1 underground injection control program requirements of
2 Parts 124, 125 -- I'm sorry, 124, 144 and 146 of the
3 Code of Federal Regulations. The effective date of
4 this program in Michigan was June 25, 1984.

5 The Underground Injection Control, or UIC
6 Program, is designated to protect underground sources
7 of drinking water by permitting only those injection
8 wells which meet stringent technical requirements.
9 The program is also designed to ensure public
10 participation in the permitting process. The public
11 is invited to comment on every proposed permit
12 decision. EPA holds public hearings for those draft
13 permit decisions that generate significant public
14 interests or comments. An announcement of this public
15 hearing was made in the Jackson Citizen Patriot on
16 March 30th, 2013 and mailed to land owners of record
17 within a quarter mile of the proposed injection well,
18 and other interested parties.

19 A public hearing is more formal than an
20 information session and it has a different purpose.
21 At an information session, EPA engages in a discussion
22 with the public about a proposed regulatory action in
23 which all parties can ask questions, share
24 information, and develop a greater understanding of
25 the issues involved.

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 5

1 In contrast a public hearing provides
2 members of the public an opportunity to formally and
3 publicly make EPA aware of their views on intended
4 regulatory action. Oral statements will be recorded
5 word for word by a court reporter, but there is no
6 sworn testimony or cross examination. This hearings
7 is your opportunity to tell EPA whether you feel the
8 terms of the proposed permit are consistent with EPA's
9 Underground Injection Control Program requirements and
10 whether the facts, as EPA has determined them, are
11 accurate. EPA's role during the public hearing is
12 only to listen to the comments made. We will not
13 respond to them this evening, however, all comments
14 received at this hearing and in writing during the
15 entire public comment period will be reviewed and
16 addressed in a responsiveness summary to be added to
17 the permit administrative record.

18 Upon consideration of all comments, EPA
19 will make its decision to issue or deny this UIC
20 permit for Haystead #9 saltwater disposal injection
21 well. This final decision may be appealed to the
22 Environmental Appeals Board but only if you submit
23 written comments on the draft permit during the public
24 comment period or if you make a statement in this
25 hearing tonight. If you wish to make a statement at

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 6

1 this hearing, please be sure that you provide your
2 information at the registration table so that we may
3 correctly enter your name into the hearing record.
4 Even if you don't choose to make a statement but want
5 to receive a copy of any response in the final permit
6 decision, make sure that you have indicated so on the
7 sign-in sheet at the registration table.

8 Copies of the transcript for this hearing,
9 as well as written comments submitted to this
10 proceeding, will be maintained at EPA Region 5 office
11 in Chicago and will become part of the administrative
12 record. A copy of the final decision of the minutes
13 of this hearing and responsiveness summary of comments
14 received will also be available for your review at the
15 Jackson District Library.

16 The public comment period has been extended
17 through May 14th, 2013 so that if you have written
18 statements upon the conclusion of this hearing, you
19 may forward those to EPA at the address in the public
20 notice, which has been provided.

21 First, Mr. Elkins will read his statement
22 into the record. Ms. Krause will then begin calling
23 on those who have checked in on their registration
24 form that they would like to make a statement and have
25 it transcribed by the court reporter.

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 7

1 I will now turn the floor over to Mr.
2 Elkins.

3 MR. ELKINS: Good evening, my name is Tim
4 Elkins and I'm an environmental scientist with the
5 United States Environmental Protection Agency.

6 I'm here today to listen to your comments
7 regarding an injection well permit, which we propose
8 to issue to West Bay Exploration Company, to inject
9 produced brine 2,870 feet below the ground surface.

10 EPA proposes to issue a permit to West Bay
11 Exploration Company under the Federal Underground
12 Injection Control program for the State of Michigan.

13 The purpose of the Federal Underground
14 Injection Control regulations is to ensure that
15 injection wells are constructed and operated properly
16 so that they do not threaten underground sources of
17 drinking water. EPA protects underground sources of
18 drinking water that contain less than 10,000
19 milligrams per liter of total dissolved solids. This
20 includes current sources of drinking water, as well as
21 potential sources of drinking water. EPA requires
22 that an injection well operator obtain a UIC permit
23 that imposes requirements with respect to the
24 construction, operation, testing, monitoring,
25 reporting, and plugging of the injection well.

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 8

1 The permit which is the subject of today's
2 hearing is for a Class II injection well. The
3 proposed Class II permit would allow for the injection
4 of fluids which were brought to the surface during the
5 production of oil and gas.

6 The Haystead #9 SWD well would be drilled
7 to a total depth of 3,100 feet below ground surface.
8 The base of the lowermost underground source of
9 drinking water in the vicinity of the injection well
10 is the Marshall Sandstone, approximately 217 feet
11 below ground surface. The injection zone where the
12 waste will be disposed of is limited to the niagaran
13 formation at depths between 2,870 feet and 3,100 feet
14 below ground surface. The injection zone is separated
15 and confined from the lowermost underground source of
16 drinking water by approximately 2,653 feet or rock
17 strata, containing mainly shale, limestone, and
18 various other rock types. Because fluids cannot move
19 easily through these formations, the confining layers
20 will prevent the injected fluids from migrating upward
21 out of the injection zone.

22 The construction of the proposed injection
23 well includes an 11 3/4" surface casing set at 350
24 feet, which will be fully cemented from that depth to
25 the surface. An 8 5/8" casing will extend to 930 feet

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 9

1 and will also be fully cemented to the surface.
2 Further, a 5 1/2" long string casing will be set at
3 2,870 feet and will also be completely cemented to the
4 surface. Injection is proposed to take place through
5 steel tubing which will be set within the 5 1/2" steel
6 casing. A device called a packer will be set at the
7 bottom of the tubing to seal off the space between the
8 5 1/2" casing and tubing. This space, called an
9 annulus, will be filled with a liquid mixture of water
10 containing a corrosion inhibitor, and allows the
11 pressure in the annulus to be monitored for any leaks.
12 The annulus pressure will be tested and must pass a
13 mechanical integrity demonstration prior to injection
14 of any fluids, and every five years thereafter.

15 The injection pressure must not exceed a
16 maximum injection pressure of 737 pounds per square
17 inch gauge. The limitation on wellhead pressure
18 serves to prevent injection formation and
19 confining-formation fracturing, and to ensure
20 injection formation fluids will not move into
21 underground sources of drinking water. The calculated
22 maximum injection pressure is dependent upon depth and
23 specific gravity of the injected fluid and the nature
24 of the geology at the bottom of the well. In this
25 case, the niagaran at 2,870 feet was used as the depth

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 10

1 and a specific gravity of 1.234 was used for the
2 injected fluid to calculate the maximum injection
3 pressure limit.

4 The West Bay Exploration Company may not
5 start drilling or constructing the injection well
6 until a final permit has been issued. If EPA issues
7 this permit, West Bay Exploration Company will be
8 responsible for observing and recording injection
9 pressure, flow rate, annulus pressure, and cumulative
10 volume on a weekly basis. These measurements must be
11 reported to the EPA on a monthly basis. West Bay
12 Exploration Company will also be responsible for
13 observing, recording and reporting annulus liquid loss
14 on a quarterly basis, and must analyze the injected
15 fluids on an annual basis. West Bay Exploration
16 Company will only be allowed to inject produced brine
17 generated from West Bay's own production wells. West
18 Bay Exploration Company has demonstrated adequate
19 financial responsibilities to close, plug and abandon
20 this injection well. A state bond in the amount of
21 \$25,000 has been established for this purpose.

22 The requirements I have described for
23 proper construction, operation, and monitoring of the
24 well provide multiple safeguards to protect
25 underground sources of drinking water. It is now your

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 11

1 opportunity to tell us your comments on the proposed
2 permit. EPA will consider all comments in making its
3 decision to issue or deny this underground injection
4 control permit to West Bay Exploration Company.

5 MS. KRAUSE: Hello, my name is Patricia
6 Krause, and I'm the Community Involvement Coordinator
7 for the U.S. Environmental Protection Agency.

8 We'll start this by, I'll call your name
9 based on the list that you signed in and you can come
10 up to the microphone and state your first and last
11 name, and please spell your last name so that it's
12 correct in the record. I'll apologize in advance if I
13 mispronounce your name.

14 Since we must make sure that everyone who
15 wants to comment at this public hearing is given the
16 opportunity, we ask that your comments take no longer
17 than five minutes.

18 And finally, I do have index cards if you
19 would like to write your comments and you don't wish
20 to speak. So we can start now.

21 Bob Gillmore?

22 MR. GILLMORE: First, my name is Bob
23 Gilmore, G-I-L-M-O-R-E.

24 I have a couple of comments, I guess. I
25 found out about this meeting tonight so I didn't have

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 12

1 any time to prepare anything formally, but my
2 understanding is that the role of your organization
3 deals primarily with the well itself, how the well is
4 constructed, how it will operate, and I haven't heard
5 anything in the earlier session tonight that would
6 lead me to believe that you're going to do anything
7 specific other than what deals with the well itself.

8 Specifically, I guess, based on information
9 that we heard earlier, the company is going to be
10 pumping some 22 million gallons of fluid, brine, you
11 call it, into the well on an annual basis, and I
12 understand, based on information that you've
13 presented, it's going to be 3,000 feet below the
14 ground.

15 I think your introduction material stated
16 that the composition down there was shale and
17 limestone, and earlier tonight I think it was
18 discussed that limestone is porous and fluids can go
19 through it.

20 Is there any organization that is
21 monitoring where all of this fluid is going to go if
22 the life of this well is 10 years, or 20 years, or 50
23 years at, pick a number, 22 million gallons a year,
24 how big of an area will be covered in this pool of
25 material that is pumped down there, and what is, what

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 13

1 is the structure of the rock and the shale and the
2 limestone in that broader geographic area, and to what
3 extent has research and analysis been done in that
4 broader area to make sure that the limestone that
5 apparently is down in there is not going to leak and
6 allow for some of this material, which possibly is
7 lighter, to come back up to the surface?

8 I grew up in a little town in Ohio called
9 Lima. They have a, back in the '50s, they had a
10 refinery down there owned by Standard Ohio. It was
11 later sold to BP, and I think is still operational.
12 And they have been pumping millions of gallons of
13 refinery waste in the soil down there for 50 years, or
14 so. And if you talk to a doctor that practices in
15 that area, they will agree that it is properly called
16 goiter capital of the United States. However, no
17 politician or administrator from the refinery will
18 acknowledge any of that, will talk to you about it.

19 So I guess the bottom line is, I understand
20 that you can very competently construct the well, and
21 you can monitor pressure to make sure things are going
22 down there correctly and, whatever, but once it goes
23 down there, what's the geographic area that's going to
24 be covered by it over the life of the well and what
25 analysis has been done above that, that expanded

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 14

1 geographic area to assure that there will be no leaks
2 up into the water table?

3 Thank you.

4 MS. KRAUSE: Dr. Patricia Mack --

5 DR. MACK DUSLAK: Mine is just a quick
6 statement for the record.

7 Dr. Patricia Mack, M-A-C-K, Duslak,
8 D-U-S-L-A-K.

9 While I listened carefully to Mr. Elkins'
10 explanation of the safeguards to be set in place for
11 the Haystead #9 SWD injection well, I am still
12 concerned that this poses a huge environmental threat
13 to Jackson County, specifically the Raisin River.

14 Much was said about protection through
15 layers and layers of rock and shale downward over 2600
16 feet, but little assurance was given about the leaking
17 and leeching outward toward the river, so that's my
18 concern.

19 MS. KRAUSE: Mark Muhich.

20 MR. MUHICH: My name is Mark Muhich,
21 M-U-H-I-C-H.

22 I'm a conservation chair for the Central
23 Michigan Group of the Sierra Club.

24 I have some concerns about the endangered
25 species essays that were done in preparation for this

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 15

1 permit.

2 First thing I would like to recommend is
3 that the EPA require this area of review to be
4 expanded. I see in the maps that were contained in
5 the permit application that the quarter-mile radius
6 extends down the hill within 200 feet of the Raisin
7 River, and that seems to me to be an arbitrary
8 distinction, because if anything were to happen within
9 that quarter-mile area of review, is obviously going
10 to wash into the river, anything that's in that marsh
11 between your perimeter and the river is going to be
12 damaged.

13 I find it hard to believe that there is
14 only four species of concern here. I know each of
15 these species that, I haven't seen this skipperling,
16 but I'd like to refer you to this book "Amphibians and
17 Retiles of the Great Lakes Region", by James Harding.
18 He goes through this book giving a very detailed
19 analysis of turtles, salamanders, skinks, snakes and
20 amphibians. There are hundreds of species here. Many
21 of them are in Michigan and many of them are listed as
22 habitats for this particular region. Many of them are
23 in decline, some of them are threatened and some of
24 them are endangered far beyond the numbers that are
25 listed in this permit.

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 16

1 I'd also like you to look at we call the
2 Herp Atlas for Michigan. That's specifically for
3 Michigan. There are 76 species of reptiles in
4 Michigan, 22 of which are threatened or endangered,
5 and many of those, whose habitats could be found in
6 this region, so I find it hard to believe that there
7 is only four species here.

8 I'd like you to ask the permit team to go
9 back and analyze that habitat, including the animals
10 that are included in this Amphibians and Reptiles, by
11 James Harding, and also the lists that are online for
12 the Michigan Herp Atlas.

13 I would go ahead and read you the
14 scientific names of a lot of these animals but my
15 Latin is terrible and in deference to our court
16 reporter, I won't.

17 One last thing, I was surprised and
18 heartened to hear the permit for this previous well,
19 which we talked about here a year ago, has been
20 withdrawn, one account, at least, being the endangered
21 species, but in the announcement, it only says it's
22 been withdrawn. And I could not find out until
23 tonight until what, so I'm glad it was, but perhaps in
24 the future, we could be a little more forthcoming
25 about the information.

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 17

1 Thank you very much.

2 MS. KRAUSE: John Bancroft.

3 MR. BANCROFT: John Bancroft,
4 B-A-N-C-R-O-F-T.

5 Tim, thank you for the presentation. It
6 was informative, and your team.

7 I would like to go on the record here to
8 make sure that I say West Bay, I find personally, is a
9 credible company and their people do a good job. And
10 I'd like to also say that I have no feelings of
11 negativity toward the owners of this property where
12 this injection well is going in. They're basically
13 our neighbors and they're doing what they think is
14 right.

15 I have talked to a lot already but, for the
16 record, this area also is known as a prairie fen, too,
17 one of the largest prairie fens existing in the world,
18 or the last ones.

19 Prairie fen is where the water goes into
20 the ground, hits the clay, ultimately comes up under
21 the marsh and feeds the marsh from under the marsh
22 instead of from on top, and it creates a whole
23 different type of habitat, it's very unique, and we
24 have not only Raisin River that's very close to the
25 site, we have the Grand River, Kalamazoo River, the

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 18

1 St. Joseph River, the Tiffin River, all that come out
2 of this area that is now in the midst of being
3 developed for oil. So all of those watersheds are
4 potentially in danger from the industrialization of
5 this rural area.

6 All the areas that have been in our
7 township, that have been developed, I believe, are
8 zoned agriculture. Many of the people that have moved
9 here, came here, too, and took that into consideration
10 when they moved here, that they didn't want to move in
11 an industrial site. Many inhabitants have always
12 lived here, farmed land and lived here for a long
13 time, but it seems like, kind of, going back on their
14 word when you have something zoned agricultural and
15 all of a sudden, it pretty much is going to be
16 industrial for a long, long time. And you are going
17 to deal with all the industrial things. And the site
18 where the injection well is is a pretty big focus on
19 that. I hope that you get an opportunity to actually
20 physically visit the site and look around, and see,
21 especially now the bird migration season, the place is
22 packed with birds. The water, I would say, is going
23 by out there probably five to eight miles an hour,
24 just downstream within site is Norvell Lake. There's
25 probably 30 homes on that lake, they're within minutes

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 19

1 from that site, and I think my last statement would be
2 our state DEQ does a lot of bragging about how good
3 their rules are and, I believe, their rules are
4 decent, but there are certain things that I just can't
5 find any regulation for, for instance, as materials
6 that are coming up out of the ground there, which you
7 would call fluids, you mentioned the word benzine, I
8 don't know if there is a rule anywhere that says they
9 can't put benzine down in the ground in an injection
10 well. I don't know if there is anywhere where there's
11 a place where the state says you can't burn benzine in
12 the air out of a flare, okay, and I would think that
13 any physician that would be here right now would tell
14 you that any amount of benzine isn't allowed, is
15 deadly, so I think that's an issue.

16 And then, lastly, this whole issue of
17 sizing, we have earthquakes here, periodically, we
18 have earthquakes in southern Michigan, and they shake
19 things, and that means whatever is going down in the
20 ground, which will be ultimately your injection well,
21 and hundred of other pipes, are all in danger of being
22 damaged, so if this wasn't the single most valuable,
23 greatest freshwater resource in the universe, there is
24 nowhere in the universe where they have freshwater
25 like we have here.

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 20

1 If we were out there in the middle of
2 Wyoming, it would not be such a big deal, this just is
3 tough. Thank you.

4 MS. KRAUSE: David Lamb.

5 MR. LAMB: Yes, I'm David Lamb, L-A-M-B is
6 the last name.

7 I'm a Norvell Township resident, in fact, I
8 live on tranquil little private lake called Fay Lake,
9 which is within a mile-and-a-half of your injection
10 well.

11 My question is, how can you guarantee, like
12 the other subjects that have been up here, how can you
13 absolutely guarantee there isn't any fracturing in any
14 of your granite or limestone base that will, that
15 fluids might gradually migrate to the surface?

16 Like I said I live on a tranquil little
17 lake. I've lived there within a quarter mile where I
18 live now all my life. Been a farmer, you've turned us
19 farmers into investigators. We love our property,
20 that's why farmers farm. They appreciate getting out
21 this time of the year, and we love, love the crops
22 that are growing, wildflowers, whatever, we just don't
23 want to have any mistakes to ruin our tranquil habitat
24 in our great River Raisin watershed area.

25 I can carry on more, but I'm not a public

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 21

1 speaker. Like I said, I was raised as a farmer, but
2 thank you for being here, the EPA people, thank you
3 very much.

4 MS. KRAUSE: Fred Marsh.

5 MR. MARSH: Fred Marsh, M-A-R-S-H.

6 First, I'd like to ask if any of you live
7 in this area?

8 MS. KRAUSE: Chicago.

9 MR. BATES: We're really not allowed to be
10 answering questions.

11 MR. MARSH: I don't care. Do you live in
12 the area? Lansing maybe?

13 I did a little bit of homework today. In
14 the past three years, fountains of gas and oil drill
15 waste have been appearing in Oklahoma and Louisiana.
16 In south Florida, 20 of the most stringently regulated
17 disposal wells in southern Florida have failed, 20.

18 And I was shocked to find out that there is
19 680,000 injection wells of some sort in this country,
20 680,000, and scientists and federal regulators don't
21 know how many are leaking.

22 I've lived here my whole life. I played in
23 the creek that empties out of Clark Lake. I played in
24 the creek that empties the lake in Cement City.

25 Before Lake Columbia was built, and there

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 22

1 is a few other people in here that was here before
2 Lake Columbia was built, and that all empty into the
3 River Raisin, and this well is right next door to the
4 River Raisin, and it's, I just have not come to grips
5 of putting a well that close to a tributary like that
6 that ends up in the Great Lakes.

7 Let's see, I got here, the Great Lakes is
8 the largest freshwater on earth, in the universe, like
9 John says, 84 percent is in North America, 21 percent
10 is in the world, is right here in the Great Lakes.

11 The State of Michigan, guess how many acres
12 they own? 4.1 million. They want to buy the Trolls
13 Farm and they want to shut down the state park, don't
14 understand it.

15 The shoreline in Michigan is 3,288 miles,
16 in the U.S. around the Great Lakes is 5,241. Between
17 the U.S. and Canada is 10,368 miles of shoreline in
18 the Great Lakes. The freshest water in the world is
19 here, and we have things that are almost extinct and
20 you guys can't guarantee that the cement won't crack,
21 because I'm worked in cement almost my whole life,
22 cement cracks. We're in Michigan, temperature
23 changes, ground heaves, cements cracks.

24 I've welded pipe, and one more very
25 important thing I have is, the driver when he pulls

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 23

1 his truck in there and starts unloading his truck, the
2 company I work for was a cement hauling company who
3 hauled to Ready Mix, and what happened was while the
4 driver was unloading the tank, he walked around,
5 thumped the tires, took a pee, or whatever, he blew
6 the lid, or the top, off the bag house, which if he
7 would have been standing there, paying attention,
8 looking up to see if the light was on or not, or
9 watching his gauges, he would have known that. It's
10 going to be human error that screws this up.

11 That's all I got to say, and thanks for
12 coming.

13 MS. KRAUSE: Donna Marsh.

14 MRS. DONNA MARSH: Hello, my name is Donna
15 Marsh, M-A-R-S-H.

16 I have here a water test that we spent \$300
17 to have our water checked November 2010, and the name
18 of the company was Water Test America, LLC.

19 Your regular county water tests for ten
20 chemicals, most of them I can pronounce, E. Coli,
21 bacteria, iron, magnesium, lead, mercury, sodium,
22 arsenic, pH, nitrate and hardness.

23 We paid extra money two years, three years
24 ago now, to have them test for a numerous amount of
25 chemicals, that I can't even pronounce most of their

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 24

1 names. There is four pages here. I plan on getting
2 to... and giving him this list so you can all see.
3 These are the types of chemicals and hazardous
4 materials that have been pulled out of the earth and
5 injected back into the earth. However they're going
6 to do it, however deep they're going to do it, who
7 knows what, they don't, they do not know what they're
8 doing. They do not know what happens when it gets
9 down that many feet into our ground. You don't even
10 know if their is life under the ground. All you know
11 that is there is a gas and there is oil and it means
12 this, money, money, money. You can't drink it, folks.
13 When our water is gone, we're gone, all life on this
14 planet is gone.

15 I'm emotional, I have every right to be
16 emotional, damn it. We're all going to die if we keep
17 this kind of crap up. Get our heads out of the sand.
18 It doesn't take a brain to figure this out. We're
19 human beings, do we want to continue this way? We
20 can't. We cannot continue to do this kind of, this is
21 total chaos, it's insanity.

22 I'm trying to find a couple names of these
23 chemicals that I can pronounce just to give you an
24 idea.

25 First page, I can't pronounce one, there's

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 25

1 a pageful.

2 MR. MARSH: There is 17 benzenes in that
3 paper, that end up with benzine.

4 MRS. DONNA MARSH: Acetone, ladies,
5 fingernail polish remover, that's acetone, I do know
6 that. I don't think I want to drink it. I don't even
7 want to smell it.

8 There's all these carbon stuff I can't
9 pronounce, like I said, nitrobenzene, that doesn't
10 sound very cool. Nitrobenzene, chlorothane, whatever
11 that is, I don't know.

12 There was a gentleman here a year ago, he
13 named every one of these and it went in the record.
14 They have it. Chlorides, like I said, I'll print it,
15 I'll have it printed and I'll also have the name,
16 address, phone number, of the Water Test America so
17 you all can get a baseline of your water now. We
18 should get ours done again immediately. It's been
19 three years.

20 Folks, we just got to wake up. We got to
21 wake up. We got to start changing things.

22 Start paying attention, start coming to
23 these meetings, start speaking up. I'm not one to
24 speak up, this is the first time I've done this. I
25 was here last year. I turned my in in writing. I

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 26

1 planned on turning this in in writing.

2 Do I have to stick to a four-by-four index
3 card? You will be getting eight...

4 Whether you do anything with it or not, I
5 care less, but we have to speak up, we have to take a
6 minute and come to these things. Our word does count,
7 eventually, it does count, but we have to pull
8 together, folks, we have to. This is life or death
9 of us and this planet, we can no longer continue this
10 way. It's going to go up and it's gone.

11 God bless.

12 MS. KRAUSE: Bob Elrod.

13 MR. ELROD: Bob Elrod, E-L-R-O-D, and I can
14 guarantee you that I will not get an applause like
15 Donna Marsh did, my friend, Donna Marsh.

16 I had the pleasure of part of my career
17 working for Consumers Energy, and I was a gas steel
18 technician and worked in the gas and oil feeds for 15,
19 20 years.

20 In fields where we, I know we're not
21 talking about it tonight, where we fracked every well
22 in the field over around Holland, and I haven't heard
23 of anybody in the last 50 years saying the water is no
24 good in Holland. Like I say, I think --

25 UNIDENTIFIED SPEAKER: Horizontal fracking.

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 27

1 MR. ELROD: I think we've got to develop
2 some type of trust. I know that we had to meet, not
3 only Consumers' specifications, but then it was DNR,
4 now it's DEQ, and we had to meet EPA rules, and if you
5 didn't, they were crawling up your backside. And if
6 any of you keep track in the papers, you see where
7 there has been oil spills and those people are fined a
8 horrendous amount, so I think money, money makes
9 operators operate a little better because they know
10 what the end result could be.

11 But I think, as regards to these two wells,
12 I live about a mile from both of them as the crow
13 flies. I think if West Bay has got everything put
14 together properly, and done their homework, and if the
15 EPA agrees with that, I would hope that they could
16 move in a timely fashion.

17 I know we complained that the governments
18 are always slow, but in a timely fashion because if
19 any of you have looked at our roads, how bad they are,
20 and I think part of that we can blame on the people
21 that are hauling the brine and the oil away from these
22 locations.

23 So, again, we've got the police here in
24 case any of you want to attack me, I hopefully have
25 some friends back there to protect me, don't you trip

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 28

1 me.

2 Again, thank you, and thank you for your
3 presentation.

4 MS. KRAUSE: Pam Anderson.

5 MS. ANDERSON: Pam Anderson,
6 A-N-D-E-R-S-O-N.

7 My question tonight is, no one really knows
8 the life expectancy of casings on the injection wells,
9 so that's my question, I would like to know exactly
10 how long those casings are going to last. I'd also
11 like to know how many have failed, if any have failed,
12 what have they contaminated so far if there had been
13 failures on the casings on the wells?

14 Also, once the oil companies are gone and
15 these injection wells are abandoned, who is going to
16 monitor them then?

17 Does the EPA monitor wells, and then, how
18 many years will that be monitored? Will it be 20, 30,
19 40, or a lifetime? So I would really like to know
20 these questions.

21 Thank you.

22 MS. KRAUSE: Susan Stewart.

23 MS. STEWART: Susan Stewart, S-T-E-W-A-R-T.

24 A few reasons I'm here tonight, one I'm
25 part of the committee to ban fracking, which is a

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 29

1 petition drive that is going through October 1st in
2 order to let the individuals of Michigan decide
3 November 2013 if we want fracking and horizontal
4 fracking and all of this disposal in our state or not.

5 The State of Vermont has been able to ban
6 it, so there is hope it can be done but it's this a
7 grassroots effort.

8 Also, I am a community college biology
9 professor. I also teach environmental science, so I
10 do know a lot about the environment. I know a lot
11 about big companies, so I've made my list.

12 One thing, as I mentioned earlier, just a
13 couple weeks ago in Ann Arbor, I went to a town hall
14 meeting. There is a video out call Fracktopia you can
15 view on YouTube. The panel consisted of an
16 environmental engineer from U of M doing studies, I'll
17 talk about it in a minute. It also consisted of an
18 oil industry representative. There was an individual
19 from the Michigan Environmental Council, and then
20 there was a representative from the EPA, or DEQ, DEQ,
21 okay, and the individual from the oil industry said,
22 quote/unquote, Michigan is blessed because we have so
23 many injection wells. Of course, I thought, what, is
24 there a fracking God that now we're blessed?

25 And so I guess my first question is, if we

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 30

1 have so many wells, deep injection wells, already here
2 in Michigan, we're blessed, i.e., meaning as the law
3 states, other states, may not be around here, but
4 other states that fracking is going on, Pennsylvania,
5 Ohio, New York, they can bring all of their waste over
6 our roads and into our wells. And so, why do we need
7 it?

8 Also, we hear about this brine, brine, it's
9 considered saltwater. As was mentioned, ma'am, if I
10 had your list, I'd probably be able to read a lot of
11 those. And they are carcinogenic. Not only that, are
12 they, many of them carcinogenic, and remember they say
13 it's .1 percent of 1 percent, when we're talking about
14 thousands of millions of gallons of fluid, 1 percent
15 is a huge amount.

16 The environmental engineer from U of M, as
17 we speak, U of M has a huge study going on to see the
18 impact of the fracking, and all.

19 He said, what his study is doing is looking
20 what's going on down there when all these chemicals
21 are put down there, and they don't want to tell you,
22 right, that there is also radiation, there's radium,
23 there is strontium, there is heavy metals, there is
24 leads, they're going to be released when these fluids
25 go down there. They're going to bring a portion of

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 31

1 that back up.

2 They're doing studies as we speak to see
3 the interactions because they don't know what is going
4 to happen. They don't know how harmful it's go to be
5 over time and how it's going to be detrimental to our
6 kids.

7 Also, brought up, too, and I was very
8 alarmed to learn tonight that 12,000 wells, and we
9 have one inspector and he mentioned every five years
10 they'll be inspected. To me something seems wrong
11 with that picture.

12 Now, it was stated very clearly how often
13 the oil company is going to send its records in, what
14 they're doing, what they're doing. As an educator, I
15 know it is cheaper for these big companies to pay
16 these fines than it is to regulate it and keep it
17 cleaned up. They will mess it and they will pay the
18 fine, so not much inspection there.

19 U of M is doing studies to see the effects.
20 Why are we moving forward with any of this if there
21 have not been comprehensive studies done.

22 I recently got an e-mail from the Sierra
23 Club, now the state department has put out a report
24 all the fracking, and this injection, is all part of
25 it, so they frack it and then they have to get rid of

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 32

1 the waste, so this is where we're at here. They put
2 out a report. It just so happens, hopefully, I don't
3 know if you guys know about it, the EPA is very upset
4 with their report. It appears that their maybe a
5 little corruption, oh my, it just so happens that the
6 individual that wrote the report is very affiliated
7 with the oil industry, and so the EPA is not happy
8 with the state department's report. If it's true,
9 which I'm really hoping it is, from the Sierra Club, I
10 hoping it's reputable, they said that they're going
11 to, the EPA is going to do more studies on the effects
12 of it, on the environmental effects, not only our
13 water, greenhouse gases, some places they're digging
14 for the oil and they're burning off the natural gas.
15 Now, granted it's 50 percent cleaner than coal but oh,
16 my gosh, that's just a waste of energy doing
17 absolutely nothing.

18 So until the EPA has concluded its studies,
19 why are not we like New York, why isn't there a
20 moratorium everywhere in the U.S. until we know the
21 effects?

22 With the fracking, and we talked about
23 transporting it in the pipes, I recently learned that
24 all of our lovely tarsands that sits, so it doesn't
25 float, to be cleaned up that comes down from Canada,

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 33

1 Alberta, all the way through our states to Texas, 60
2 percent of that is exported, that means it goes
3 through all of our states, through our land, risking
4 spills, risking leaks, like what is in Kalamazoo
5 River; Marshall, Michigan. They're still not cleaned
6 up from two years ago, and who makes the money? BP.
7 And who pays?

8 And as far as cleaning up, remember, they
9 are exempt from the Safe Drinking Water Act, and so
10 they don't have to clean it up.

11 Regular reporting, insignificant leaks.
12 Well, they said only significant leaks. I'm just
13 curious about insignificant leaks. I guess, those get
14 to go by, and also mentioned...

15 I really hope that the EPA has enough
16 commonsense for all of the concerned citizens across
17 the United States to put a halt on this.

18 Thanks for coming.

19 MS. KRAUSE: Peter Bormuth.

20 MR. BORMUTH: My name is Peter Bormuth,
21 B-O-R-M-U-T-H, and I'm a pagan druid.

22 I note that the EPA lists these common
23 components of oil field brines, benzene is a
24 conclusively known human carcinogen and a notorious
25 cause of bone marrow failure... epidemiological

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 34

1 clinical and laboratory data link benzene to aplastic
2 anemia, acute leukemia, cancer and bone marrow
3 abnormalities.

4 Benzene exposure has been linked directly
5 to neural birth defects and spinal bifida.

6 Ethyl benzene exposure can irritate the
7 eyes, nose and throat, very high levels can cause
8 paralysis, trouble breathing and death.

9 High exposure may also damage the liver and
10 chronic long-term effects can last for months or
11 years.

12 Toluene exposure is associated with
13 effects such as psychoorganic syndrome, visual evoked
14 potential, toxic polyneuropathy, optic atrophy, brain
15 lesions and... dysfunctions. Low to moderate levels
16 can cause tiredness, weakness, drunken-type actions,
17 memory loss, nausea and loss of appetite hearing and
18 color vision.

19 Xylene is an irritant of the eyes, mucus
20 membrane at concentrations below 200 PPM. Ingestion
21 of xylene causes gastrointestinal distress,
22 disturbances of liver and kidney functions and may
23 cause toxic hepatitis.

24 Chronic exposure may cause central nervous
25 system depression, anemia, mucosal hemorrhage, bone

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 35

1 marrow hyperplasia, liver enlargement and liver
2 necrosis.

3 Naphthalene is classified as possibly
4 carcinogenic to humans and may damage or destroy red
5 blood cells. Exposure may cause confusion, nausea,
6 vomiting, diarrhea, cataracts, blood in the urine and
7 jaundice.

8 Under California's proposition 65,
9 naphthalene is listed and known to the state to cause
10 cancer.

11 Polycyclic aroma hydrocarbons are known for
12 carcinogen, mutagenic and teratogenic properties.
13 Prenatal exposure is associated with lower IQ and
14 childhood asthma. The Center For Children's
15 Environmental Health reports that exposure to PAH
16 during pregnancy is related to adverse birth outcomes,
17 including low birth weight, premature delivery and
18 heart malformations.

19 Obviously, if these natural occurring toxic
20 chemicals reached our USDW, a serious hazard to human
21 health would result.

22 40 CFR, Section 146.62 (C)(1)(2),
23 specifically states that the injection zone must have,
24 quote, sufficient permeability, porosity, thickness
25 and aerial extent to prevent migration of fluids into

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 36

1 the USDWs and be free of faults and fractures that
2 might allow fluid movement.

3 West Bay proposes to use salinic grade
4 niagaran 40 feet thick, at a depth of 2830 feet to
5 2870 feet as upper confining zone, will prevent
6 migration of this injected fluid.

7 West Bay's lithologic description of this
8 clay stone is argillaceous carbonate dense hard gray
9 excellent barrier to flow.

10 West Bay proposes that salina A1 white
11 niagaran in the depth of 2870 feet to 3100 feet at the
12 injection zone in their lithologic description of this
13 rock is dolomite, hard, sucrosemic, vogular, porous
14 and permeable, brown and gray. The reality, of
15 course, differs from these descriptions.

16 This commentator observes that in West
17 Bay's attachment for the proposed West Bay #22 well,
18 they suggested salina A1 white niagaran extended from
19 2662 feet to 3032 feet, a convenient and possibly
20 fraudulent new strata had been inserted into the
21 lithography for well #9, salina gray niagaran.

22 I note that Ronald C. Olowski, of Petroleum
23 Geological Survey Division of the Michigan Department
24 of Natural Resources and report of investigation
25 number 25 states that, quote, in the subsurface, the

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 37

1 formal outcrop terminology is not used. Instead, the
2 series of informal and poorly defined terms has
3 evolved based on driller's descriptions and, to a
4 minor extent, geophysical log responses. Such in
5 formal terms is brown niagaran, gray niagaran and
6 white niagaran are based mainly on color, while the
7 informal term clinton may, or may not, be related to
8 clinton shale in New York State.

9 This commentator notes that gray niagaran
10 is every bit as porous and permeable as white and
11 brown. It may be helpful to define argillaceous rocks
12 and their properties for the audience.

13 Argillaceous refers to a group of
14 sedimentary rocks commonly clays, shales, mudstones,
15 siltstones and marls.

16 Two grades of particle size are recognized
17 silt grade, in which the particles range in size from
18 1/16 to 1/256 millimeter and the clay grade with
19 particles less than 1/256 millimeter.

20 In addition to the clay minerals,
21 argillaceous rocks may contain colloidal material,
22 very finely divided quartz, carbonate dust, finely
23 divided carbene and iron pyrite. Argillaceous rocks
24 are almost always laid down in water and their
25 mineralogy is to some extent controlled by their

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 38

1 environment of deposition.

2 ...interactions with water can be
3 destructive if shale, siltstones and argillaceous
4 carbonate rocks.

5 Argillaceous carbonates, in particular,
6 presents a durability problem upon exposure to water.
7 Unlike sandstones, carbonates are subject to extreme
8 variabilities and porosity.

9 Porosity shows covariation of three main
10 factors, the abundance of calcite cement, the presence
11 of argillaceous carbonate composition and the
12 abundance of anhydrite cement.

13 Anhydrite and argillaceous carbonates
14 ranges from patches -- I'm not done with five minutes
15 yet, Honey -- range to nodular and distribution and
16 may include intervals of primary depositional calcium
17 sulfate, probably formed as gypsum, and subsequently
18 converted to anhydrite.

19 Cement morphologies range from finely
20 felding (phon) to course prismatic pristles (phon)
21 with each type... poor filling to replacement
22 relationship to the host carbonate.

23 Timing of anhydrite... may range from
24 early, late. Course anhydrite commonly appears to be
25 among the latest diagenetic products and is associated

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 39

1 in many samples with the last carbonate cement type...

2 This commentator adds that his reading
3 shows its solutions of salt are also destructive of
4 argillaceous carbonates.

5 West Bay will be injecting 1,200 EVLs of
6 liquid brine a day with a sodium content of 37,600
7 milligrams per liter in the strata.

8 Immediately above the proposed injection
9 zone is a bed of salina A2 evaporite 28 feet thick.

10 Given the close proximity of this pure
11 anhydrite in the injection zone, it can be assumed
12 that the salina gray niagaran contains anhydrite...

13 Laboratory experiments show that anhydrite
14 readily converts to gypsum when brought into contact
15 with water.

16 Jaworski claims this can happen within a
17 few years, or even one year. She notes that the
18 process takes place in the presence of water at
19 temperatures below 40 celsius.

20 The temperature 3,000 feet deep in the
21 Michigan basin is approximately 85 degrees Fahrenheit,
22 so it is a safe assumption this fraction will occur.

23 Many researchers are reporting evidence of
24 this conversion at shallower depths, Murray reporting
25 it a depth of 3500 feet below the surface.

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 40

1 Other researchers note that the solubility
2 of anhydrite increases sharply within an increase in
3 pressure. Each .01 PA increase in pressure results in
4 3 to 5 times increase in solubility.

5 The average pressure gradient in the
6 Michigan basin is approximately .43 pounds per foot,
7 meaning the pressure, in the absence of any additional
8 compression, is roughly 1,290 PSI.

9 Anhydrite rock layer is similar to this 28
10 foot thick cabinet, been observed to swell and
11 increase in volume up to 60 percent upon exposure to
12 water.

13 When such swelling is prevented due to
14 confining conditions, immense swelling pressures from
15 1.7 to 4.7 MPA have been monitored and recorded.

16 Salinic pressures as high as 10,000 PSI, 70
17 MPA were reported by Brune in 1965 for anhydrite
18 deposits in Texas.

19 This pressure will rapidly cause a
20 conversion and breaching of the anhydrite cap, sodium
21 also accelerates conversion of anhydrite.

22 Anhydrite reacts very rapidly with brines
23 to form double sulfates. These double sulfates are
24 unstable and dilute solutions and decompose to gypsum,
25 and this process can occur very quickly, even at

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 41

1 depths.

2 Other studies show that even massive
3 anhydrite with small fissures will be dissolved,
4 produce hallowed out cavens (phon) and runaway seepage
5 flows within 13 years.

6 Some researchers predict vertical uplift of
7 portions of the horizontal bed due to the converse
8 pressures. Given the normal chemical reactions that
9 can be expected to occur with both the salina gray
10 niagaran and the salina A2 evaporite, these layers
11 will both be breached within 20 years. This poses a
12 definite threat to our underground sources of drinking
13 water and potentially to the Raisin River and Norvell
14 Lake, which are located within a half mile of
15 injection site.

16 This commentator also claims that the
17 Indiana bat will be endangered by this activity within
18 its known habitat.

19 40 CFR, Section 144.4 (c), specifically,
20 states the Endangered Species Act, 16 USC 1531,
21 Section 70 Act, and implementing regulations, 50 CFR,
22 Part 402, require the regional administrator to
23 ensure, in consultation with the Secretary of the
24 Interior of Commerce, that any action authorized by
25 the EPA is not likely to jeopardize the continued

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 42

1 existence of any endangered or threatened species.

2 The Indiana bat was listed as endangered
3 species by the U.S. Forest Service on March 11th,
4 1967.

5 While the injection site itself is located
6 on a plowed agricultural feed, it is within a quarter
7 mile of the Raisin River. The field borders a small
8 creek and two marshes, one of which has a significant
9 wooden component, making it a primary candidate for
10 Indiana bat maturity or...

11 The United States Forest Service notes that
12 the India (sic) bat depended on well developed
13 woodlots located approximately one to three miles away
14 from small to median rivers and stream corridors.
15 Both woodlot and river exist directly adjacent to this
16 proposed well site.

17 Alan Curd (phon) and Susanne Murray are two
18 scientists who have done significant research on the
19 Indiana bat. Curd found that in southern Michigan,
20 the general landscape occupied by Indiana bats consist
21 of open fields and agriculture lands 55 percent,
22 wetlands and lowland forests 19 percent, other forest
23 inhabitats (sic) 17 percent, developed areas 6
24 percent, and perennial water sources, such as ponds
25 and streams, 3 percent.

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 43

1 Curd found in southern Michigan forest,
2 woodland, marsh edge, a lowland hardwood forest, small
3 wetlands, a shrub wetland, cornfield edge and small
4 woodlot.

5 Murray and Curd have made some qualitative
6 assessments in the bat-foraging habit in Michigan.
7 The majority of bats were found foraging in forests
8 and wetlands, and other woodlands, while one bat
9 foraged in an area around a small lake and another in
10 an area with 50 percent woodland and 50 percent open
11 fields.

12 Another Indiana bat foraged over a river,
13 about ten others foraged in areas greater than .06
14 miles from the Sand River.

15 The woodland wooded marsh, small creek
16 Raisin River corridor adjacent to this well site are,
17 therefore, foraging sites of significance and cannot
18 be dismissed by the EPA.

19 Spills associated within these injection
20 well are frequent and insects will be exposed to and
21 absorbed toxic contaminants contained in these brines,
22 which the bats will then absorb while feeding.

23 The EPA Michigan and the Michigan
24 Department Of Environmental Quality are making
25 fraudulent geological assessments and they are

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 44

1 ignoring the danger this poses to Michigan's most
2 value nature resource, water.

3 Water is life. Jesus is not life. Jesus
4 is just an evil myth and his followers are ignorant
5 and diluted human beings.

6 Oil is not life. Oil is just a form of
7 stored energy, and we can find alternative energy
8 sources and technologies, but water, water is sacred,
9 water is the blood stream of the mother earth. Water
10 is life.

11 Thank you.

12 MS. KRAUSE: Victoria Powell.

13 MS. POWELL: V-I-C-T-O-R-I-A, P-O-W-E-L-L.

14 I'm going to quote from an article in
15 September from "ProPublica" entitled, the Trillion
16 Gallon Loophole Lax Rules For Drillers That Inject
17 Pollutants Into The Earth, backing up on injection
18 wells, which seems to be the subject tonight.

19 It was a year ago when I was here. It
20 turns out that since 1980, the oil industry has
21 received loopholes that have enabled them to produce
22 this greater than 200,000 injection wells in our
23 country, and also enabling them to be excluded from
24 revealing what they are actually injecting.

25 I get a kick out of listening to you speak

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 45

1 of brine as being the solution that is actually going
2 down into these injection wells, and I do because I'm
3 a physician, I'm an ER physician and also a
4 pediatrician and I taken have care of people who have
5 benefitted from the horrible chemicals that have been
6 implemented and produced by this industry in this
7 country through no fault of their own.

8 Just to say this, there have been at least,
9 since -- in 1980, 1988 and the wonderful Haliburton
10 loophole law in 2005, the oil and gas industry has
11 been exempt from revealing what they put down these
12 wells, whether they're going to irrigate them in the
13 well, whether they're going to reopen, whether they're
14 going to put water, and, quote, chemicals down
15 horizontal piping, which is a precursor to fracking,
16 or if they're going to frack these wells.

17 No matter what they are going to do, they
18 are exempt from revealing the horrible toxic waste
19 fluids that they put down the wells and are doing harm
20 to both people and to the environment.

21 I notice that last year, and again you said
22 this year, that is the, excuse me just a second, the
23 pressure monitoring, which actually will allow you,
24 the EPA, and the state DEQ government representatives
25 to determine when enough fluid or volume has gone

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 46

1 down, and it's a pressure monitoring, as I understand
2 it, pressure monitoring, excuse me, also determines
3 the integrity of the casing that you've spoken so
4 eloquently about for the wells, and it just turns out
5 that people can, you know, they can actually bypass
6 the reliability of the pressure monitoring.

7 And I just want to read this one thing to
8 you again from ProPublica, which you might want to
9 look at, propublica.org is an absolutely wonderful,
10 incredibly honest presentation of the industry,
11 fracking, what's going on in all states, including
12 Michigan.

13 But here's what I wanted say about it, it
14 says, unlike, oh, I'm sorry, an EPA inspector,
15 injection inspector went on to do his annual
16 inspection of an injection well in Kentucky in 2007,
17 and they were required about every three years. He
18 was digging down beneath the top of the well, and this
19 is what he found, he unearthed a steel tubing near the
20 surface. A few inches down he came across an
21 apparatus he had never seen before. This is man, an
22 injection well inspector for more than 13 years for
23 the EPA, and this is what he found, a section of
24 high-pressure tubing ran out of the wellbore and
25 connected to a three-foot long section of steel pipe

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 47

1 sealed at both ends. The apparatus appeared designed
2 to divert air pumped into the well in the pipe
3 instead, making the well test as if it were airtight
4 and, of course, reliable.

5 The only reason that I know of that device
6 would be, and here's what he said, "the only reason
7 that I know of that device being placed before being
8 installed would be to perform a false mechanical
9 integrity test, more than likely because the well
10 itself would not pass."

11 This person was a defendant speaking
12 against the well operator. This happened in 2007.

13 So, the other point that someone made was
14 that, you know, you rely on the pressure measures that
15 are reported to you from, you know, obviously the
16 industry, right, the industry does these and they
17 report them to you.

18 Lest you not forget, 33 months ago over a
19 million of gallons of oil spilled in the Kalamazoo
20 River, and it was not reported for 17 hours. It is
21 still being cleaned up; that is, that followed one
22 month after the BP disaster in the Gulf.

23 This is a small area but it is enormously
24 wealthy with water, and water is the essence of all
25 life. The risk of contamination to our water source

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 48

1 in this state is great. It happens, over 1,000,000
2 violations have been elicited, according to this
3 paper, from late September, and only one criminal
4 charge was made, one.

5 One of the things I really wanted to
6 addresses as a physician is this, you know, you're
7 just going to allow or disallow a permit. We asked
8 this of you last year, last year I was here speaking
9 the same thing, we had a hundred people here last
10 year, we're not giving up. You know, this is our
11 life, our lives, this is our country. The industry is
12 now in Adrian, Michigan, where I live. They want to
13 put in an oil processing and separation plant in our
14 park.

15 Last weekend there was, there is a well
16 there, and last weekend there was a petroleum smell
17 for one week in the air, and 20 yards from where this
18 well is, children were playing soccer. Are you
19 kidding me?

20 We went to the city commission, do you
21 think they're doing anything about it? They are doing
22 nothing about it. I would ask you, please, to examine
23 and insist on, sample wastewater that these people are
24 wanting or are already putting in these injection
25 wells, monitor them, confirm that there are pollutants

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 49

1 there. There are, there are. You heard two people
2 read them out.

3 Finally, I would have to say, you know, as
4 one of my friends said last year, and this is meant in
5 all sincerity, I'm sure that you approached your
6 career choice, just as I did, wanting to help people,
7 keep them healthy, keep us healthy, you know, maybe
8 you lost track along the way, but you represent us,
9 you represent us, you're our spokesmen. This has got
10 to stop. The industry, we have something they want at
11 all costs, the cheaper the better. Don't give it to
12 them. Don't give it to them.

13 We have asked our commissioners down in
14 Adrian to forbid a separation and oil plant in the
15 city limits, the only one I know of in the entire
16 state, the only one I know of, and they took \$80,000
17 of it, they could have it. So, please, you know,
18 remember what, what you started out as younger persons
19 in your career, as I do, people depend on us to make
20 the best judgment, but you got to listen to us, and
21 please, just think twice, you know, we don't need
22 another injection well.

23 The River Raisin starts in Manchester, it
24 goes all the way down to Monroe, out Lake Erie. I
25 live right by it in Adrian, Michigan, by the south

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 50

1 branch of the Raisin River. Contamination will
2 happen, if it hasn't already.

3 Thank you.

4 MS. KRAUSE: I don't have any other people
5 listed who wanted to speak, but if you would like to
6 make a public comment and you haven't done so, you're
7 welcome to.

8 State your name and spell your last name,
9 please.

10 MR. KUSCHELL: I wasn't going to speak, but
11 Victoria brought up something I'd like to add on.

12 John Kuschell, K-U-S-C-H-E-L-L.

13 I live in Adrian, I'm a liberal arts
14 teacher so I know nothing about science, I just know
15 that oil and water don't mix. My car mechanic told me
16 that 20 years ago when I blew a gasket.

17 I live in Michigan, I've lived in Michigan
18 all my life. I'm from Detroit, where industry
19 obviously made that city once famous, and now you know
20 what's happened to them.

21 I moved to Adrian for a job opportunity,
22 knew nothing about agriculture, but I knew it was a
23 good place to raise a family.

24 Just 20 years ago we had an argument about
25 whether we should sell our water to Texas and

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 51

1 California, and now we're having this discussion. And
2 I find it ironic tonight, there is, what, 25 people
3 out here, and everyone is older than you. Don't take
4 this personally, I'm sure this is happening all over
5 the country, and as Victoria said, you do represent
6 us. Most of us are probably the same age, and EPA,
7 and DEQ, or DNR, Food and Drug Administration,
8 Department Of Agriculture used to mean something. It
9 used to mean that these agencies would defend what
10 your name says, the Environmental Protection Agency,
11 the Department of Environmental Quality, is that what
12 DEQ stands for. I just wish they'd do these jobs and,
13 you know, a lot of people still believe that you are
14 protecting them, and when you talk to some residents,
15 if there are a problem, they'll take care of it. I
16 think the people that are here tonight are frustrated
17 with talking to commissions and, you know, Victoria
18 brought up about the Adrian City Commission.

19 In Lenawee County, we have had two boards,
20 or two members, two commissions that have voted down
21 leases, you know, I don't know what the count is, but
22 only two, and yet the people that either have their
23 head in the sand or believe that your agency, and
24 others, will take care of them are, you're vital,
25 you're important to us, so I echo the statement, that

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 52

1 please, I know it's difficult to bite the hand that
2 feeds you, but, you know, Michigan, especially this
3 area, with the high groundwater, is not a place for
4 this industry.

5 Thank you.

6 MS. KRAUSE: Is there anybody else that
7 would like to say something, make a comment?

8 MS. JOHNSON: My name is Eric Johnson,
9 E-R-I-C, J-O-H-N-S-O-N.

10 I'm the supervisor in Norvell Township,
11 which is where this is going to be.

12 I may repeat some things other people have
13 said, I got in here a little late but the lady who was
14 speaking about, I've heard the oil representatives say
15 how blessed we are to have these wells here and we're
16 blessed in Norvell Township for, or have been blessed
17 to have the water we have. We have some really, there
18 are some people who are much more eloquent than I,
19 what they've said well, or better than I, but that's
20 all we have, we don't have businesses, we don't have a
21 commercial strip. We have maybe five storefronts in
22 the whole township.

23 All we have is water. That's why people
24 come here to live. That's why people come here to
25 visit and recreate.

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 53

1 I don't know if you been out to the site
2 for where this is being proposed, but it's on a road
3 that was dirt road, that is paved, right off of a
4 east-west artery in our township, but I've gone out
5 there, and I haven't walked the land or anything, but
6 it appears -- I'm not a small guy, but I can, when I
7 turn, you can see the map here, it's about here, and I
8 can turn in the driveway and I can look and there's
9 the river, the Raisin River, it's right there. I
10 don't have to get on my tiptoes, or anything, it's
11 just right here.

12 And it appears where they want to put the
13 well up in the property, the property seems to slope
14 upward, it's on high ground, so if anything were bad
15 to happen, where's it going to go? It's going to go
16 right down that hill and it's going to go right in the
17 river.

18 So you have to be sure here that this is
19 done right. I mean, you said that at the last
20 hearing, your people said, that the regulations
21 prohibit you from telling the oil company where to put
22 these wells. I read the regulations, and I saw that
23 section in there, but I was looking for something
24 else, and I didn't see it, and I addressed this to you
25 before, and I don't know if it ever really got

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 54

1 answered. It didn't really say you can't, you can't
2 not tell them where not to put it, in other words, if
3 they want to put it in the worst possible place, you
4 have, you could construe that to say, you have the
5 authority to say, don't put it in the worst possible
6 place, don't put it where it's bad, there is plenty of
7 places where it can go, and no one ever seemed to
8 address that. And I think there is a fine point there
9 that really should be addressed.

10 You guys' hands are tied, it seems like
11 we're going back to the 1890s, a lot of arguments that
12 were put out there to cause you to not regulate, if
13 that can be said here, it seems like it's back to that
14 again, the same arguments were made, don't break up
15 the trust, don't break up the banking industry, and
16 now it's the oil companies. And that was addressed
17 years ago. It took courage, and it takes political
18 courage, and we have to get ahold of people to address
19 this.

20 The government does have authority. If it
21 didn't have authority, there would be a pipeline right
22 now coming down from Canada right now right through
23 the middle of the country, it's not there. It's a hot
24 issue but obviously something's standing in the way of
25 that, and I don't, I've read regulations for years,

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 55

1 and I think there has to be more leeway in what I
2 read, anyway, to what you can do, that it's not just,
3 there is s noose around your neck stopping you from
4 doing what many will say is the right thing, and
5 that's what we all want you to do, we want you to do
6 the right thing.

7 Frankly, there is a, it hits you in your
8 gut. There is a nagging thing in your gut that seems
9 to be there all the time, that we can't do anything
10 about this, and they're going to be here, and we hope
11 you're going to be there if something goes wrong, or
12 somebody is going to be there if something goes wrong,
13 but we fear that's not the case and there needs to be
14 a message sent, I guess right now this is another
15 opportunity to do it, and we want you to do the right
16 thing.

17 MS. KRAUSE: Any other comments?

18 Thank you and --

19 MR. MARSH: I have a question, the
20 gentleman said they bonded it for \$25,000 to close it,
21 the well?

22 MS. KRAUSE: Until the public hearing has
23 ended --

24 MR. MARSH: Okay, the public hearing is
25 done. Can I ask a question now?

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 56

1 MR. BATES: It's not completely done yet,
2 so let us finish the procedure, and then...

3 MS. KRAUSE: Nobody has anything, any
4 comments for the record?

5 UNIDENTIFIED SPEAKER: She does have a
6 comment.

7 MS. POWELL: Victoria Powell, I just wanted
8 to comment again about the water testing. I have had
9 the water testing done on my property, and I know a
10 couple of other people, and Mrs. Marsh, I believe,
11 has.

12 We have requested from our, I'm from
13 Lenawee County, Adrian, Michigan. We have requested
14 repeatedly to have public forums so that we could come
15 and ask and get answers to the questions. We have
16 yet, after three months, had any reply.

17 And the second part I wanted to mention
18 about the testing is, we asked if this is going to be
19 a new subject, a new lease, some kind of new contract,
20 a permit given, why is it never included that the
21 company, this enormously wealthy company, oil
22 industry, why don't they do the water testing before
23 they do anything, and do it periodically? It cost me
24 200 bucks, it cost my friend \$600, it's worth it to us
25 to know what we're doing right now is okay, and we

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 57

1 will, we will monitor it ourselves, but why isn't this
2 industry monitoring safety of water, soil, perhaps,
3 definitely air, if there are players available, this
4 should be provided, this should be a given.

5 What I have noticed is the response seems
6 to be, oh, well, we haven't really thought of it,
7 well, they didn't, they could probably, maybe we'll
8 discuss it. But, I mean, come on, you know, 40
9 percent of the United States gets fresh water from
10 Michigan. You know there are 45, I believe, wells
11 around this county, Jackson County, which was the top
12 oil producing county two years ago, excuse me, last,
13 two years ago.

14 Last year Lenawee County was the top oil
15 producing county, 1.7 million gallons of oil came out
16 of Lenawee County, and they are no way near done.

17 I mean, I saw wells get erected from 9, up
18 to 17, in just one section, and now they're marching
19 through our town and around our town and down south.

20 So the point is, please, you know,
21 institute this, you can't do this, I mean, the EPA
22 should be able to say, hey, you know, we want safety
23 for our people, for myself, my neighbors, my
24 community, my country, and we want safety for our
25 environment. We're not going to be here forever but

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 58

1 our children and grandchildren, our great
2 grandchildren are. Is this what we really want to
3 leave them? The water testing is critical, please
4 consider that.

5 Thank you.

6 MS. KRAUSE: Any other comments?

7 MR. DUSLAK: Yes, I have one, I'm make it
8 quick. My name is Steve Duslak, D-U-S-L-A-K.

9 I'm just sitting here listening, I'm
10 thinking to myself, I've been a mechanic for 43 years.
11 I've yet to see a piece of steel tubing that won't
12 rust out or a piece of concrete that won't crack.

13 Maybe you guys haven't been around long
14 enough to see that, but everything breaks, everything
15 rusts, until you're putting stainless steel tubing
16 down there.

17 Anyways, my thought.

18 MS. KRAUSE: Anybody?

19 MR. BATES: Is there anyone who would like
20 to enter comments into the formal record who has not
21 done so as of yet?

22 Let the record show that no one indicates
23 they wish to enter comments.

24 If you have written comments but did not
25 wish to speak, please give them to me, or any of the

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 59

1 other EPA staff here, before you leave tonight; or
2 afford them in writing to EPA prior to the deadline of
3 May 14th, 2013.

4 This concludes the hearing.

5 Thank you.

6

7 (Public hearing concluded at 8:47 p.m.)

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US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 60

CERTIFICATE OF REPORTER

STATE OF MICHIGAN)
) SS
COUNTY OF OAKLAND)

I, Karen Klerekoper, hereby certify
that I reported stenographically the foregoing
proceedings at the time and place hereinbefore set
forth; that thereafter the same was reduced to
computer transcription under my supervision; and that
this is a full, true, complete and correct
transcription of said proceedings.



Jane Rose Reporting

Karen Klerekoper, CSR-4250, RPR

Notary Public,

Oakland County, Michigan.

My Commission expires: 10/7/18

US EPA ARCHIVE DOCUMENT

A			B	
abandon 10:19	54:17 57:12,13	appeared 47:1	back 13:7,9 16:9 18:13	bless 26:11
abandoned 28:15	agree 13:15	appearing 21:15	24:5 27:25 31:1	blessed 29:22,24 30:2
able 29:5 30:10 57:22	agrees 27:15	appears 32:4 38:24	54:11,13	52:15,16,16
abnormalities 34:3	agricultural 18:14	53:6,12	backing 44:17	blew 23:5 50:16
absence 40:7	42:6	appetite 34:17	backside 27:5	blood 35:5,6 44:9
absolutely 20:13	agriculture 18:8 42:21	applause 26:14	bacteria 23:21	Board 5:22
32:17 46:9	50:22 51:8	application 15:5	bad 27:19 53:14 54:6	boards 51:19
absorb 43:22	ahead 16:13	appreciate 20:20	bag 23:6	Bob 11:21,22 26:12,13
absorbed 43:21	ahold 54:18	approached 49:5	ban 28:25 29:5	bond 10:20
abundance 38:10,12	air 19:12 47:2 48:17	approximately 8:10,16	Bancroft 17:2,3,3	bonded 55:20
accelerates 40:21	57:3	39:21 40:6 42:13	banking 54:15	bone 33:25 34:2,25
account 16:20	airtight 47:3	April 1:11	barrier 36:9	book 15:16,18
accurate 5:11	Alan 42:17	arbitrary 15:7	base 8:8 20:14	borders 42:7
acetone 25:4,5	alarmed 31:8	Arbor 29:13	based 11:9 12:8,12	Bormuth 33:19,20,20
acknowledge 13:18	Alberta 33:1	area 12:24 13:2,4,15	37:3,6	bottom 9:7,24 13:19
acres 22:11	allow 8:3 13:6 36:2	13:23 14:1 15:3,9	baseline 25:17	BP 13:11 33:6 47:22
Act 3:25 33:9 41:20,21	45:23 48:7	17:16 18:2,5 20:24	basically 17:12	bragging 19:2
action 4:22 5:4 41:24	allowed 10:16 19:14	21:7,12 43:9,10	basin 39:21 40:6	brain 24:18 34:14
actions 34:16	21:9	47:23 52:3	basis 10:10,11,14,15	branch 50:1
activity 41:17	allows 9:10	areas 18:6 42:23 43:13	12:11	breached 41:11
acute 34:2	alternative 44:7	argillaceous 36:8	bat 41:17 42:2,10,12	breaching 40:20
add 50:11	America 22:9 23:18	37:11,13,21,23 38:3	42:19 43:8,12	break 54:14,15
added 5:16	25:16	38:5,11,13 39:4	Bates 1:13 2:5 3:2,4	breaks 58:14
addition 37:20	amount 10:20 19:14	argument 50:24	21:9 56:1 58:19	breathing 34:8
additional 40:7	23:24 27:8 30:15	arguments 54:11,14	bats 42:20 43:7,22	brine 7:9 10:16 12:10
address 6:19 25:16	amphibians 15:16,20	aroma 35:11	bat-foraging 43:6	27:21 30:8,8 39:6
54:8,18	16:10	arsenic 23:22	Bay 3:17 7:8,10 10:4,7	45:1
addressed 5:16 53:24	analysis 13:3,25 15:19	artery 53:4	10:11,15,18 11:4	brines 33:23 40:22
54:9,16	analyze 10:14 16:9	article 44:14	17:8 27:13 36:3,10	43:21
addresses 48:6	Anderson 28:4,5,5	arts 50:13	36:17 39:5	bring 30:5,25
adds 39:2	anemia 34:2,25	asked 48:7 49:13	Bay's 10:17 36:7,17	broader 13:2,4
adequate 10:18	anhydrite 38:12,13,18	56:18	bed 39:9 41:7	Brooklyn 1:12
adjacent 42:15 43:16	38:23,24 39:11,12	assessments 43:6,25	beings 24:19 44:5	brought 8:4 31:7
Administration 51:7	39:13 40:2,9,17,20	associated 34:12	believe 12:6 15:13	39:14 50:11 51:18
administrative 5:17	40:21,22 41:3	35:13 38:25 43:19	16:6 18:7 19:3 51:13	brown 36:14 37:5,11
6:11	animals 16:9,14	assumed 39:11	51:23 56:10 57:10	Brune 40:17
administrator 13:17	Ann 29:13	assumption 39:22	beneath 46:18	bucks 56:24
41:22	announcement 4:14	assurance 14:16	benefitted 45:5	built 21:25 22:2
Adrian 48:12 49:14,25	16:21	assure 14:1	benzenes 25:2	burn 19:11
50:13,21 51:18	annual 10:15 12:11	asthma 35:14	benzine 19:7,9,11,14	burning 32:14
56:13	46:15	Atlas 16:2,12	25:3 33:23 34:1,4,6	businesses 52:20
advance 11:12	annulus 9:9,11,12	atrophy 34:14	best 49:20	buy 22:12
adverse 35:16	10:9,13	attachment 36:17	better 27:9 49:11	bypass 46:5
aerial 35:25	answered 54:1	attack 27:24	52:19	B-A-N-C-R-O-F-T 17:4
affairs 2:11 3:13	answering 21:10	attention 23:7 25:22	beyond 15:24	B-O-R-M-U-T-H 33:21
affiliated 32:6	answers 56:15	audience 37:12	bifida 34:5	
afford 59:2	anybody 26:23 52:6	author 3:10	big 12:24 18:18 20:2	C
age 51:6	58:18	authority 54:5,20,21	29:11 31:15	c 3:24 35:22 36:22
agencies 51:9	anyway 55:2	authorized 41:24	biology 29:8	41:19
agency 2:6,7,8,10,12	Anyways 58:17	available 6:14 57:3	bird 18:21	cabinet 40:10
3:6 7:5 11:7 51:10	aplastic 34:1	Avenue 2:19	birds 18:22	calcite 38:10
51:23	apologize 11:12	average 40:5	birth 34:5 35:16,17	calcium 38:16
ago 16:19 23:24 25:12	apparatus 46:21 47:1	aware 5:3	bit 21:13 37:10	calculate 10:2
29:13 33:6 44:19	apparently 13:5	A-N-D-E-R-S-O-N 28:6	bite 52:1	calculated 9:21
47:18 50:16,24	appealed 5:21	A1 36:10,18	blame 27:20	California 51:1
	Appeals 5:22	A2 39:9 41:10		California's 35:8
	APPEARANCES 2:1			call 11:8 12:11 16:1

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 62

19:7 29:14 called 9:6,8 13:8,15 20:8 calling 6:22 Canada 22:17 32:25 54:22 cancer 34:2 35:10 candidate 42:9 cap 40:20 capital 13:16 car 50:15 carbon 25:8 carbonate 36:8 37:22 38:4,11,22 39:1 carbonates 38:5,7,13 39:4 carbone 37:23 carcinogen 33:24 35:12 carcinogenic 30:11,12 35:4 card 26:3 cards 11:18 care 21:11 26:5 45:4 51:15,24 career 26:16 49:6,19 carefully 14:9 carry 20:25 case 9:25 27:24 55:13 casing 8:23,25 9:2,6,8 46:3 casings 28:8,10,13 Cassell 2:11 3:12 cataracts 35:6 cause 33:25 34:7,16 34:23,24 35:5,9 40:19 54:12 causes 34:21 cavens 41:4 cells 35:5 celsius 39:19 cement 21:24 22:20 22:21,22 23:2 38:10 38:12,19 39:1 cemented 8:24 9:1,3 cements 22:23 Center 35:14 central 14:22 34:24 certain 19:4 CERTIFICATE 60:1 certify 60:7 CFR 35:22 41:19,21 chair 14:22 changes 22:23 changing 25:21 chaos 24:21 charge 48:4	cheaper 31:15 49:11 checked 6:23 23:17 chemical 41:8 chemicals 23:20,25 24:3,23 30:20 35:20 45:5,14 Chicago 6:11 21:8 childhood 35:14 children 48:18 58:1 Children's 35:14 Chlorides 25:14 chlorothane 25:10 choice 49:6 choose 6:4 chronic 34:10,24 Citizen 4:15 citizens 33:16 city 21:24 48:20 49:15 50:19 51:18 claims 39:16 41:16 Clark 21:23 Class 3:17 8:2,3 classified 35:3 clay 17:20 36:8 37:18 37:20 clays 37:14 clean 33:10 cleaned 31:17 32:25 33:5 47:21 cleaner 32:15 cleaning 33:8 clearly 31:12 clinical 34:1 clinton 37:7,8 close 10:19 17:24 22:5 39:10 55:20 Club 14:23 31:23 32:9 coal 32:15 Code 3:22 4:3 Coli 23:20 college 29:8 colloidal 37:21 color 34:18 37:6 Columbia 21:25 22:2 come 3:2 11:9 13:7 18:1 22:4 26:6 52:24 52:24 56:14 57:8 comes 17:20 32:25 coming 19:6 23:12 25:22 33:18 54:22 comment 4:11 5:15,24 6:16 11:15 50:6 52:7 56:6,8 commentator 36:16 37:9 39:2 41:16 comments 3:15 4:14 5:12,13,18,23 6:9,13	7:6 11:1,2,16,19,24 55:17 56:4 58:6,20 58:23,24 Commerce 41:24 commercial 52:21 commission 48:20 51:18 60:25 commissioners 49:13 commissions 51:17 51:20 committee 28:25 common 33:22 commonly 37:14 38:24 commonsense 33:16 community 2:9 3:14 11:6 29:8 57:24 companies 28:14 29:11 31:15 54:16 company 3:17 7:8,11 10:4,7,12,16,18 11:4 12:9 17:9 23:2,2,18 31:13 53:21 56:21 56:21 competently 13:20 complained 27:17 complete 60:12 completely 9:3 56:1 component 42:9 components 33:23 composition 12:16 38:11 comprehensive 31:21 compression 40:8 computer 60:11 concentrations 34:20 concern 14:18 15:14 concerned 14:12 33:16 concerns 14:24 concluded 32:18 59:7 concludes 59:4 conclusion 6:18 conclusively 33:24 concrete 58:12 conditions 40:14 confined 8:15 confining 8:19 36:5 40:14 confining-formation 9:19 confirm 48:25 confusion 35:5 connected 46:25 conservation 14:22 consider 11:2 58:4 consideration 5:18	18:9 considered 30:9 consist 42:20 consisted 29:15,17 consistent 5:8 construct 13:20 constructed 7:15 12:4 constructing 10:5 construction 7:24 8:22 10:23 construe 54:4 consultation 41:23 Consumers 26:17 27:3 contact 39:14 contain 7:18 37:21 contained 15:4 43:21 containing 8:17 9:10 contains 39:12 contaminants 43:21 contaminated 28:12 contamination 47:25 50:1 content 39:6 continue 24:19,20 26:9 continued 41:25 contract 56:19 contrast 5:1 control 3:11,21 4:1,5 5:9 7:12,14 11:4 controlled 37:25 convenient 36:19 converse 41:7 conversion 39:24 40:20,21 converted 38:18 converts 39:14 cool 25:10 coordinator 2:9 3:14 11:6 Copies 6:8 copy 1:24 6:5,12 cornfield 43:3 correct 11:12 60:12 correctly 6:3 13:22 corridor 43:16 corridors 42:14 corrosion 9:10 corruption 32:5 cost 56:23,24 costs 49:11 Council 29:19 count 26:6,7 51:21 country 21:19 44:23 45:7 48:11 51:5 54:23 57:24	county 1:3 3:18 14:13 23:19 51:19 56:13 57:11,11,12,14,15 57:16 60:5,24 couple 11:24 24:22 29:13 56:10 courage 54:17,18 course 29:23 36:15 38:20,24 47:4 court 5:5 6:25 16:15 covariation 38:9 covered 12:24 13:24 crack 22:20 58:12 cracks 22:22,23 crap 24:17 crawling 27:5 creates 17:22 credible 17:9 creek 21:23,24 42:8 43:15 criminal 48:3 critical 58:3 crops 20:21 cross 5:6 crow 27:12 CSR-4250 2:22 60:22 cumulative 10:9 Curd 42:17,19 43:1,5 curious 33:13 current 7:20
D				
				damage 34:9 35:4 damaged 15:12 19:22 damn 24:16 danger 18:4 19:21 44:1 data 34:1 date 4:3 David 20:4,5 day 39:6 deadline 59:2 deadly 19:15 deal 18:17 20:2 deals 12:3,7 death 26:8 34:8 decent 19:4 decide 29:2 decision 4:12 5:19,21 6:6,12 11:3 decisions 4:13 decline 15:23 decompose 40:24 deep 24:6 30:1 39:20 defects 34:5 defend 51:9 defendant 47:11

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 63

deference 16:15 define 37:11 defined 37:2 definite 41:12 definitely 57:3 degrees 39:21 delivery 35:17 demonstrated 10:18 demonstration 9:13 dense 36:8 deny 5:19 11:3 department 31:23 36:23 43:24 51:8,11 department's 32:8 depend 49:19 depended 42:12 dependent 9:22 deposition 38:1 depositional 38:16 deposits 40:18 depression 34:25 depth 8:7,24 9:22,25 36:4,11 39:25 depths 8:13 39:24 41:1 DEQ 19:2 27:4 29:20 29:20 45:24 51:7,12 described 10:22 description 36:7,12 descriptions 36:15 37:3 designated 4:6 designed 4:9 47:1 destroy 35:4 destructive 38:3 39:3 detailed 15:18 determine 45:25 determined 5:10 determines 46:2 detrimental 31:5 Detroit 50:18 develop 4:24 27:1 developed 18:3,7 42:12,23 device 9:6 47:5,7 diarrhea 35:6 die 24:16 different 4:20 17:23 differs 36:15 difficult 52:1 digenetic 38:25 digging 32:13 46:18 dilute 40:24 diluted 44:5 directly 34:4 42:15 dirt 53:3 disallow 48:7	disaster 47:22 discuss 57:8 discussed 12:18 discussion 4:21 51:1 dismissed 43:18 disposal 1:5 5:20 21:17 29:4 disposed 8:12 dissolved 7:19 41:3 distinction 15:8 distress 34:21 distribution 38:15 District 6:15 disturbances 34:22 divert 47:2 divided 37:22,23 Division 36:23 DNR 27:3 51:7 doctor 13:14 doing 17:13 24:8 29:16 30:19 31:2,14 31:14,19 32:16 45:19 48:21,21 55:4 56:25 dolomite 36:13 Donna 23:13,14,14 25:4 26:15,15 door 22:3 double 40:23,23 downstream 18:24 downward 14:15 Dr 14:4,5,7 draft 3:11 4:12 5:23 drill 21:14 drilled 8:6 Drillers 44:16 driller's 37:3 drilling 10:5 drink 24:12 25:6 drinking 3:25 4:7 7:17 7:18,20,21 8:9,16 9:21 10:25 33:9 41:12 drive 29:1 driver 22:25 23:4 driveway 53:8 Drug 51:7 druid 33:21 drunken-type 34:16 due 40:13 41:7 durability 38:6 Duslak 14:5,7 58:7,8 dust 37:22 dysfunctions 34:15 D-U-S-L-A-K 14:8 58:8	E 23:20 earlier 12:5,9,17 29:12 early 38:24 earth 22:8 24:4,5 44:9 44:17 earthquakes 19:17,18 easily 8:19 east-west 53:4 echo 51:25 edge 43:2,3 educator 31:14 effective 4:3 effects 31:19 32:11,12 32:21 34:10,13 effort 29:7 eight 18:23 26:3 either 51:22 elicited 48:2 Elkins 2:7 3:10 6:21 7:2,3,4 14:9 eloquent 52:18 eloquently 46:4 Elrod 26:12,13,13 27:1 emotional 24:15,16 empties 21:23,24 empty 22:2 enabled 44:21 enabling 44:23 endangered 14:24 15:24 16:4,20 41:17 41:20 42:1,2 ended 55:23 ends 22:6 47:1 energy 26:17 32:16 44:7,7 engages 4:21 engineer 29:16 30:16 enlargement 35:1 enormously 47:23 56:21 ensure 4:9 7:14 9:19 41:23 enter 6:3 58:20,23 entire 5:15 49:15 entitled 44:15 environment 29:10 38:1 45:20 57:25 environmental 2:6,7,8 2:10,12 3:5,6,9 5:22 7:4,5 11:7 14:12 29:9,16,19 30:16 32:12 35:15 43:24 51:10,11 EPA 1:13 3:7,10,13,14 3:16 4:12,21 5:3,7 5:10,18 6:10,19 7:10 7:17,21 10:6,11 11:2	15:3 21:2 27:4,15 28:17 29:20 32:3,7 32:11,18 33:15,22 41:25 43:18,23 45:24 46:14,23 51:6 57:21 59:1,2 EPA's 5:8,11 epidemiological 33:25 ER 45:3 erected 57:17 Eric 52:8 Erie 49:24 error 23:10 especially 18:21 52:2 essays 14:25 essence 47:24 established 10:21 Ethyl 34:6 evaporite 39:9 41:10 evening 3:4 5:13 7:3 eventually 26:7 evidence 39:23 evil 44:4 EVLs 39:5 evoke 34:13 evolved 37:3 exactly 28:9 examination 5:6 examine 48:22 exceed 9:15 excellent 36:9 excluded 44:23 excuse 45:22 46:2 57:12 exempt 33:9 45:11,18 exist 42:15 existence 42:1 existing 17:17 expanded 13:25 15:4 expectancy 28:8 expected 41:9 experiments 39:13 expires 60:25 explanation 14:10 Exploration 3:17 7:8 7:11 10:4,7,12,15,18 11:4 exported 33:2 exposed 43:20 exposure 34:4,6,9,12 34:24 35:5,13,15 38:6 40:11 extend 8:25 extended 6:16 36:18 extends 15:6 extent 13:3 35:25 37:4 37:25	extinct 22:19 extra 23:23 extreme 38:7 eyes 34:7,19 E-L-R-O-D 26:13 e-mail 31:22 E-R-I-C 52:9 F fact 20:7 factors 38:10 facts 5:10 Fahrenheit 39:21 failed 21:17 28:11,11 failure 33:25 failures 28:13 false 47:8 family 50:23 famous 50:19 far 15:24 28:12 33:8 farm 20:20 22:13 farmed 18:12 farmer 20:18 21:1 farmers 20:19,20 fashion 27:16,18 fault 45:7 faults 36:1 Fay 20:8 fear 55:13 federal 3:21,23 4:3 7:11,13 21:20 feed 42:6 feeding 43:22 feeds 17:21 26:18 52:2 feel 5:7 feelings 17:10 feet 7:9 8:7,10,13,13 8:16,24,25 9:3,25 12:13 14:16 15:6 24:9 36:4,4,5,11,11 36:19,19 39:9,20,25 felding 38:20 fen 17:16,19 fens 17:17 field 26:22 33:23 42:7 fields 26:20 42:21 43:11 Fifth 2:19 figure 24:18 filled 9:9 filling 38:21 final 1:24 5:21 6:5,12 10:6 finally 11:18 49:3 financial 10:19 find 15:13 16:6,22 17:8 19:5 21:18
--	---	---	--	---

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 64

24:22 44:7 51:2 fine 31:18 54:8 fined 27:7 finely 37:22,22 38:19 fines 31:16 fingernail 25:5 finish 56:2 first 6:21 11:10,22 15:2 21:6 24:25 25:24 29:25 fissures 41:3 five 9:14 11:17 18:23 31:9 38:14 52:21 flare 19:12 flies 27:13 float 32:25 floor 7:1 Florida 21:16,17 flow 10:9 36:9 flows 41:5 fluid 9:23 10:2 12:10 12:21 30:14 36:2,6 45:25 fluids 8:4,18,20 9:14 9:20 10:15 12:18 19:7 20:15 30:24 35:25 45:19 focus 18:18 folks 24:12 25:20 26:8 followed 47:21 followers 44:4 Food 51:7 foot 40:6,10 foraged 43:9,12,13 foraging 43:7,17 forbid 49:14 foregoing 60:8 forest 42:3,11,22 43:1 43:2 forests 42:22 43:7 forever 57:25 forget 47:18 form 6:24 40:23 44:6 formal 4:19 37:1,5 58:20 formally 5:2 12:1 formation 8:13 9:18 9:20 formations 8:19 formed 38:17 forth 60:10 forthcoming 16:24 forums 56:14 forward 6:19 31:20 found 3:22 11:25 16:5 42:19 43:1,7 46:19 46:23	fountains 21:14 four 15:14 16:7 24:1 four-by-four 26:2 frack 31:25 45:16 fracked 26:21 fracking 26:25 28:25 29:3,4,24 30:4,18 31:24 32:22 45:15 46:11 Fracktopia 29:14 fraction 39:22 fractures 36:1 fracturing 9:19 20:13 Frankly 55:7 fraudulent 36:20 43:25 Fred 21:4,5 free 36:1 frequent 43:20 fresh 57:9 freshest 22:18 freshwater 19:23,24 22:8 friend 26:15 56:24 friends 27:25 49:4 frustrated 51:16 full 60:12 fully 8:24 9:1 functions 34:22 Further 9:2 future 16:24	26:3 Gillmore 11:21,22 Gilmore 11:23 give 24:23 49:11,12 58:25 given 11:15 14:16 39:10 41:8 56:20 57:4 giving 15:18 24:2 48:10 glad 16:23 go 12:18,21 16:8,13 17:7 26:10 30:25 31:4 33:14 53:15,15 53:16 54:7 God 26:11 29:24 goes 13:22 15:18 17:19 33:2 49:24 55:11,12 going 12:6,9,13,21 13:5,21,23 15:9,11 17:12 18:13,15,16 18:22 19:19 23:10 24:5,6,16 26:10 28:10,15 29:1 30:4 30:17,20,24,25 31:3 31:5,13 32:10,11 44:14 45:1,12,13,14 45:16,17 46:11 48:7 50:10 52:11 53:15 53:15,16 54:11 55:10,11,12 56:18 57:25 goiter 13:16 good 3:4 7:3 17:9 19:2 26:24 50:23 gosh 32:16 government 45:24 54:20 governments 27:17 grade 36:3 37:17,18 grades 37:16 gradient 40:5 gradually 20:15 Grand 17:25 grandchildren 58:1,2 granite 20:14 granted 32:15 grassroots 29:7 gravity 9:23 10:1 gray 36:8,14,21 37:5,9 39:12 41:9 great 15:17 20:24 22:6 22:7,10,16,18 48:1 58:1 greater 4:24 43:13 44:22	greatest 19:23 greenhouse 32:13 grew 13:8 grips 22:4 ground 7:9 8:7,11,14 12:14 17:20 19:6,9 19:20 22:23 24:9,10 53:14 groundwater 52:3 group 14:23 37:13 growing 20:22 guarantee 20:11,13 22:20 26:14 guess 11:24 12:8 13:19 22:11 29:25 33:13 55:14 Gulf 47:22 gut 55:8,8 guy 53:6 guys 22:20 32:3 54:10 58:13 gypsum 38:17 39:14 40:24 G-I-L-M-O-R-E 11:23	hazardous 24:3 head 51:23 heads 24:17 health 35:15,21 healthy 49:7,7 hear 16:18 30:8 heard 12:4,9 26:22 49:1 52:14 hearing 1:10,13 2:5 3:2,7,8,20 4:15,19 5:1,11,14,25 6:1,3,8 6:13,18 8:2 11:15 34:17 53:20 55:22 55:24 59:4,7 hearings 4:12 5:6 heart 35:18 heartened 16:18 heaves 22:23 heavy 30:23 Hello 11:5 23:14 help 49:6 helpful 37:11 hemorrhage 34:25 hepatitis 34:23 hereinbefore 60:9 Herp 16:2,12 hey 57:22 high 34:7,9 40:16 52:3 53:14 high-pressure 46:24 hill 15:6 53:16 hits 17:20 55:7 holds 4:12 Holland 26:22,24 homes 18:25 homework 21:13 27:14 honest 46:10 Honey 38:15 hope 18:19 27:15 29:6 33:15 55:10 hopefully 27:24 32:2 hoping 32:9,10 horizontal 26:25 29:3 41:7 45:15 horrendous 27:8 horrible 45:5,18 host 38:22 hot 54:23 hour 18:23 hours 47:20 house 23:6 huge 14:12 30:15,17 human 23:10 24:19 33:24 35:20 44:5 humans 35:4 hundred 19:21 48:9
	G Gallon 44:16 gallons 12:10,23 13:12 30:14 47:19 57:15 gas 8:5 21:14 24:11 26:17,18 32:14 45:10 gases 32:13 gasket 50:16 gastrointestinal 34:21 gauge 9:17 gauges 23:9 general 42:20 generate 4:13 generated 10:17 gentleman 25:12 55:20 geographic 13:2,23 14:1 geological 36:23 43:25 geology 9:24 geophysical 37:4 getting 20:20 24:1		H habit 43:6 habitat 16:9 17:23 20:23 41:18 habitats 15:22 16:5 half 41:14 Haliburton 45:9 hall 29:13 hallowed 41:4 halt 33:17 hand 52:1 hands 54:10 happen 15:8 31:4 39:16 50:2 53:15 happened 23:3 47:12 50:20 happening 51:4 happens 24:8 32:2,5 48:1 happy 32:7 hard 15:13 16:6 36:8 36:13 Harding 15:17 16:11 hardness 23:22 hardwood 43:2 harm 45:19 harmful 31:4 hailed 23:3 hauling 23:2 27:21 Haystead 1:5 5:20 8:6 14:11 hazard 35:20	

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 65

hundreds 15:20 hydrocarbons 35:11 hyperplasia 35:1 I idea 24:24 ignorant 44:4 ignoring 44:1 Il 3:17 8:2,3 immediately 25:18 39:8 immense 40:14 impact 30:18 implemented 45:6 implementing 41:21 important 22:25 51:25 imposes 7:23 inch 9:17 inches 46:20 include 38:16 included 16:10 56:20 includes 7:20 8:23 including 16:9 35:17 46:11 incorporates 3:25 increase 40:2,3,4,11 increases 40:2 incredibly 46:10 index 11:18 26:2 India 42:12 Indiana 41:17 42:2,10 42:19,20 43:12 indicated 6:6 indicates 58:22 individual 29:18,21 32:6 individuals 29:2 industrial 18:11,16,17 industrialization 18:4 industry 29:18,21 32:7 44:20 45:6,10 46:10 47:16,16 48:11 49:10 50:18 52:4 54:15 56:22 57:2 informal 37:2,7 information 4:20,21 4:24 6:2 12:8,12 16:25 informative 17:6 Ingestion 34:20 inhabitants 18:11 inhabits 42:23 inhibitor 9:10 inject 7:8 10:16 44:16 injected 8:20 9:23 10:2,14 24:5 36:6 injecting 39:5 44:24	injection 1:6,7 3:11,17 3:21 4:1,5,7,17 5:9 5:20 7:7,12,14,15,22 7:25 8:2,3,9,11,14 8:21,22 9:4,13,15,16 9:18,20,22 10:2,5,8 10:20 11:3 14:11 17:12 18:18 19:9,20 20:9 21:19 28:8,15 29:23 30:1 31:24 35:23 36:12 39:8,11 41:15 42:5 43:19 44:17,22 45:2 46:15 46:16,22 48:24 49:22 insanity 24:21 insects 43:20 inserted 36:20 insignificant 33:11,13 insist 48:23 inspected 31:10 inspection 31:18 46:16 inspector 31:9 46:14 46:15,22 installed 47:8 instance 19:5 institute 57:21 integrity 9:13 46:3 47:9 intended 5:3 interactions 31:3 38:2 interested 4:18 interests 4:14 Interior 41:24 intervals 38:16 introduction 12:15 investigation 36:24 investigators 20:19 invited 4:11 involved 4:25 involvement 2:9 3:14 11:6 IQ 35:13 iron 23:21 37:23 ironic 51:2 irrigate 45:12 irritant 34:19 irritate 34:6 issue 3:16 5:19 7:8,10 11:3 19:15,16 54:24 issued 3:20 10:6 issues 4:25 10:6 i.e 30:2 J Jackson 1:3 3:18 4:15	6:15 14:13 57:11 James 15:17 16:11 JANE 1:25 2:18 jaundice 35:7 Jaworski 39:16 Jeff 3:12 Jeffrey 2:8 jeopardize 41:25 Jesus 44:3,3 job 17:9 50:21 jobs 51:12 John 17:2,3 22:9 50:12 Johnson 52:8,8 Joseph 18:1 judgment 49:20 June 4:4 J-O-H-N-S-O-N 52:9 K Kalamazoo 17:25 33:4 47:19 Karen 2:22 60:7,22 keep 24:16 27:6 31:16 49:7,7 Kentucky 46:16 kick 44:25 kidding 48:19 kidney 34:22 kids 31:6 kind 18:13 24:17,20 56:19 Klerekoper 2:22 60:7 60:22 knew 50:22,22 know 15:14 19:8,10 21:21 24:7,8,10,10 25:5,11 26:20 27:2,9 27:17 28:9,11,19 29:10,10 31:3,4,15 32:3,3,20 46:5 47:5 47:7,14,15 48:6,10 49:3,7,15,16,17,21 50:14,14,19 51:13 51:17,21,21 52:1,2 53:1,25 56:9,25 57:8 57:10,20,22 known 17:16 23:9 33:24 35:9,11 41:18 knows 24:7 28:7 Krause 2:9 3:13 6:22 11:5,6 14:4,19 17:2 20:4 21:4,8 23:13 26:12 28:4,22 33:19 44:12 50:4 52:6 55:17,22 56:3 58:6 58:18	Kuschell 50:10,12 K-U-S-C-H-E-L-L 50:12 L laboratory 34:1 39:13 ladies 25:4 lady 52:13 laid 37:24 lake 18:24,25 20:8,8 20:17 21:23,24,25 22:2 41:14 43:9 49:24 Lakes 15:17 22:6,7,10 22:16,18 Lamb 20:4,5,5 land 4:16 18:12 33:3 53:5 lands 42:21 landscape 42:20 Lansing 21:12 largest 17:17 22:8 lastly 19:16 late 38:24 48:3 52:13 latest 38:25 Latin 16:15 law 30:2 45:10 Lax 44:16 layer 40:9 layers 8:19 14:15,15 41:10 lead 12:6 23:21 leads 30:24 leak 13:5 leaking 14:16 21:21 leaks 9:11 14:1 33:4 33:11,12,13 learn 31:8 learned 32:23 lease 56:19 leases 51:21 leave 58:3 59:1 leeching 14:17 leeway 55:1 Lenawee 51:19 56:13 57:14,16 lesions 34:15 Lest 47:18 Let's 22:7 leukemia 34:2 levels 34:7,15 liberal 50:13 Library 6:15 lid 23:6 life 12:22 13:24 20:18 21:22 22:21 24:10 24:13 26:8 28:8 44:3	44:3,6,10 47:25 48:11 50:18 lifetime 28:19 light 23:8 lighter 13:7 Lima 13:9 limestone 8:17 12:17 12:18 13:2,4 20:14 limit 10:3 limitation 9:17 limited 8:12 limits 49:15 line 13:19 link 34:1 linked 34:4 liquid 9:9 10:13 39:6 list 11:9 24:2 29:11 30:10 listed 15:21,25 35:9 42:2 50:5 listen 3:15 5:12 7:6 49:20 listened 14:9 listening 44:25 58:9 lists 16:11 33:22 liter 7:19 39:7 lithography 36:21 lithologic 36:7,12 little 13:8 14:16 16:24 20:8,16 21:13 27:9 32:5 52:13 live 20:8,16,18 21:6,11 27:12 48:12 49:25 50:13,17 52:24 lived 18:12,12 20:17 21:22 50:17 liver 34:9,22 35:1,1 lives 48:11 LLC 23:18 located 3:18 41:14 42:5,13 locations 27:22 log 37:4 long 9:2 18:12,16,16 28:10 46:25 58:13 longer 11:16 26:9 long-terms 34:10 look 16:1 18:20 46:9 53:8 looked 27:19 looking 23:8 30:19 53:23 loophole 44:16 45:10 loopholes 44:21 loss 10:13 34:17,17 lost 49:8 lot 16:14 17:15 19:2
---	---	---	--	---

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 66

29:10,10 30:10 51:13 54:11 Louisiana 21:15 love 20:19,21,21 lovely 32:24 low 34:15 35:17 lower 35:13 lowermost 8:8,15 lowland 42:22 43:2 L-A-M-B 20:5 M M 29:16 30:16,17 31:19 Mack 14:4,5,7 magnesium 23:21 mailed 4:16 main 38:9 maintained 6:10 majority 43:7 making 11:2 42:9 43:24 47:3 malformations 35:18 man 46:21 Manchester 49:23 map 53:7 maps 15:4 March 4:16 42:3 marching 57:18 Mark 14:19,20 marls 37:15 marrow 33:25 34:2 35:1 marsh 15:10 17:21,21 17:21 21:4,5,11 23:13,14,15 25:2,4 26:15,15 43:2,15 55:19,24 56:10 Marshall 8:10 33:5 marshes 42:8 massive 41:2 material 12:15,25 13:6 37:21 materials 19:5 24:4 matter 45:17 maturity 42:10 maximum 9:16,22 10:2 ma'am 30:9 mean 51:8,9 53:19 57:8,17,21 meaning 30:2 40:7 means 19:19 24:11 33:2 meant 49:4 measurements 10:10 measures 47:14	mechanic 50:15 58:10 mechanical 9:13 47:8 median 42:14 meet 4:8 27:2,4 meeting 11:25 29:14 meetings 25:23 members 5:2 51:20 membrane 34:20 memory 34:17 mention 56:17 mentioned 19:7 29:12 30:9 31:9 33:14 mercury 23:21 mess 31:17 message 55:14 metals 30:23 Michigan 1:2,12 3:22 4:4 7:12 14:23 15:21 16:2,3,4,12 19:18 22:11,15,22 29:2,19 29:22 30:2 33:5 36:23 39:21 40:6 42:19 43:1,6,23,23 46:12 48:12 49:25 50:17,17 52:2 56:13 57:10 60:3,24 Michigan's 44:1 microphone 11:10 middle 20:1 54:23 midst 18:2 migrate 20:15 migrating 8:20 migration 18:21 35:25 36:6 mile 4:17 20:17 27:12 41:14 42:7 miles 18:23 22:15,17 42:13 43:14 mile-and-a-half 20:9 milligrams 7:19 39:7 millimeter 37:18,19 million 12:10,23 22:12 47:19 57:15 millions 13:12 30:14 Mine 14:5 mineralogy 37:25 minerals 37:20 minor 37:4 minute 26:6 29:17 minutes 6:12 11:17 18:25 38:14 mispronounce 11:13 mistakes 20:23 mix 23:3 50:15 mixture 9:9 moderate 34:15 money 23:23 24:12,12	24:12 27:8,8 33:6 monitor 13:21 28:16 28:17 48:25 57:1 monitored 9:11 28:18 40:15 monitoring 7:24 10:23 12:21 45:23 46:1,2,6 57:2 Monroe 49:24 month 47:22 monthly 10:11 months 34:10 47:18 56:16 moratorium 32:20 morphologies 38:19 mother 44:9 move 8:18 9:20 18:10 27:16 moved 18:8,10 50:21 movement 36:2 moving 31:20 MPA 40:15,17 mucosal 34:25 mucus 34:19 mudstones 37:14 Muhich 14:19,20,20 multiple 10:24 Murray 39:24 42:17 43:5 mutagenic 35:12 myth 44:4 M-A-C-K 14:7 M-A-R-S-H 21:5 23:15 M-U-H-I-C-H 14:21 N nagging 55:8 name 6:3 7:3 11:5,8,11 11:11,13,22 14:20 20:6 23:14,17 25:15 33:20 50:8,8 51:10 52:8 58:8 named 25:13 names 16:14 24:1,22 naphthalene 35:3,9 natural 32:14 35:19 36:24 nature 9:23 44:2 nausea 34:17 35:5 near 46:19 57:16 neck 55:3 necrosis 35:2 need 30:6 49:21 needs 55:13 negativity 17:11 neighbors 17:13 57:23 nervous 34:24	neural 34:5 never 46:21 56:20 new 2:20,20 30:5 32:19 36:20 37:8 56:19,19,19 niagaran 8:12 9:25 36:4,11,18,21 37:5,5 37:6,9 39:12 41:10 nitrate 23:22 nitrobenzene 25:9,10 nodular 38:15 noose 55:3 normal 41:8 North 22:9 Norvell 3:18 18:24 20:7 41:13 52:10,16 nose 34:7 Notary 60:23 note 33:22 36:22 40:1 notes 37:9 39:17 42:11 notice 6:20 45:21 noticed 57:5 notorious 33:24 November 23:17 29:3 number 12:23 25:16 36:25 numbers 15:24 numerous 23:24 O Oakland 60:5,24 observed 40:10 observes 36:16 observing 10:8,13 obtain 7:22 obviously 15:9 35:19 47:15 50:19 54:24 occupied 42:20 occur 39:22 40:25 41:9 occurring 35:19 October 29:1 office 6:10 officer 1:13 2:5 3:7 oh 32:5,15 46:14 57:6 Ohio 13:8,10 30:5 oil 1:7 8:5 18:3 21:14 24:11 26:18 27:7,21 28:14 29:18,21 31:13 32:7,14 33:23 44:6,6,20 45:10 47:19 48:13 49:14 50:15 52:14 53:21 54:16 56:21 57:12 57:14,15 okay 19:12 29:21	55:24 56:25 Oklahoma 21:15 older 51:3 Olowski 36:22 once 13:22 28:14 50:19 ones 17:18 online 16:11 open 42:21 43:10 operate 12:4 27:9 operated 7:15 operation 7:24 10:23 operational 13:11 operator 7:22 47:12 operators 27:9 opportunity 5:2,7 11:1 11:16 18:19 50:21 55:15 optic 34:14 Oral 5:4 order 3:2 29:2 organization 12:2,20 outcomes 35:16 outcrop 37:1 outward 14:17 owned 13:10 owners 4:16 17:11 P PA 40:3 packed 18:22 packer 9:6 pagan 33:21 page 24:25 pageful 25:1 pages 24:1 PAH 35:15 paid 23:23 Pam 28:4,5 panel 29:15 paper 25:3 48:3 papers 27:6 paralysis 34:8 park 22:13 48:14 part 3:24 6:11 26:16 27:20 28:25 31:24 41:22 56:17 participation 4:10 particle 37:16 particles 37:17,19 particular 15:22 38:5 parties 4:18,23 Parts 4:2 pass 9:12 47:10 patches 38:14 Patricia 2:9 3:13 11:5 14:4,7
--	--	--	---	---

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 67

Patriot 4:15 paved 53:3 pay 31:15,17 paying 23:7 25:22 pays 33:7 pediatrician 45:4 pee 23:5 Pennsylvania 30:4 people 17:9 18:8 21:2 22:1 27:7,20 45:4,20 46:5 48:9,23 49:1,6 49:19 50:4 51:2,13 51:16,22 52:12,18 52:23,24 53:20 54:18 56:10 57:23 percent 22:9,9 30:13 30:13,14 32:15 33:2 40:11 42:21,22,23 42:24,25 43:10,10 57:9 perennial 42:24 perform 47:8 perimeter 15:11 period 5:15,24 6:16 periodically 19:17 56:23 permeability 35:24 permeable 36:14 37:10 permit 1:6 3:11,16,19 4:11,13 5:8,17,20,23 6:5 7:7,10,22 8:1,3 10:6,7 11:2,4 15:1,5 15:25 16:8,18 48:7 56:20 permitting 4:7,10 person 47:11 personally 17:8 51:4 persons 49:18 Pete 3:12 Peter 2:11 33:19,20 petition 29:1 petroleum 36:22 48:16 pH 23:22 phon 38:20,20 41:4 42:17 phone 25:16 physically 18:20 physician 19:13 45:3 45:3 48:6 pick 12:23 picture 31:11 piece 58:11,12 pipe 22:24 46:25 47:2 pipeline 54:21 pipes 19:21 32:23 pipng 45:15	place 9:4 14:10 18:21 19:11 39:18 50:23 52:3 54:3,6 60:9 placed 47:7 places 32:13 54:7 plan 24:1 planet 24:14 26:9 planned 26:1 plant 48:13 49:14 played 21:22,23 players 57:3 playing 48:18 please 3:3 6:1 11:11 48:22 49:17,21 50:9 52:1 57:20 58:3,25 pleasure 26:16 plenty 54:6 plowed 42:6 plug 10:19 plugging 7:25 point 47:13 54:8 57:20 police 27:23 polish 25:5 political 54:17 politician 13:17 pollutants 44:17 48:25 Polycyclic 35:11 polyneuropathy 34:14 ponds 42:24 pool 12:24 poor 38:21 poorly 37:2 porosity 35:24 38:8,9 porous 12:18 36:13 37:10 portion 30:25 portions 41:7 poses 14:12 41:11 44:1 possible 54:3,5 possibly 13:6 35:3 36:19 potential 7:21 34:14 potentially 18:4 41:13 pounds 9:16 40:6 Powell 44:12,13 56:7 56:7 PPM 34:20 practices 13:14 prairie 17:16,17,19 precursor 45:15 predict 41:6 pregnancy 35:16 premature 35:17 Prenatal 35:13 preparation 14:25	prepare 12:1 presence 38:10 39:18 presentation 17:5 28:3 46:10 presented 12:13 presents 38:6 pressure 9:11,12,15 9:16,17,22 10:3,9,9 13:21 40:3,3,5,7,19 45:23 46:1,2,6 47:14 pressures 40:14,16 41:8 pretty 18:15,18 prevent 8:20 9:18 35:25 36:5 prevented 40:13 previous 16:18 primarily 12:3 primary 38:16 42:9 print 25:14 printed 25:15 prior 9:13 59:2 prismatic 38:20 pristles 38:20 private 20:8 probably 18:23,25 30:10 38:17 51:6 57:7 problem 38:6 51:15 procedure 56:2 proceeding 6:10 proceedings 60:9,13 process 4:10 39:18 40:25 processing 48:13 produce 41:4 44:21 produced 7:9 10:16 45:6 producing 57:12,15 production 8:5 10:17 products 38:25 professor 29:9 program 3:21 4:1,4,6 4:9 5:9 7:12 prohibit 53:21 Projection 7:5 promulgated 3:24 pronounce 23:20,25 24:23,25 25:9 proper 10:23 properly 7:15 13:15 27:14 properties 35:12 37:12 property 17:11 20:19 53:13,13 56:9 propose 7:7	proposed 3:16,20 4:11 4:17,22 5:8 8:3,22 9:4 11:1 36:17 39:8 42:16 53:2 proposes 7:10 36:3,10 proposition 35:8 ProPublica 44:15 46:8 propublica.org 46:9 protect 4:6 10:24 27:25 protecting 51:14 protection 2:6,7,8,10 2:12 3:6 11:7 14:14 51:10 protects 7:17 provide 6:1 10:24 provided 6:20 57:4 provides 5:1 proximity 39:10 PSI 40:8,16 psychoorganic 34:13 public 1:10 2:11 3:7 3:12 4:9,10,12,13,14 4:19,22 5:1,2,11,15 5:23 6:16,19 11:15 20:25 50:6 55:22,24 56:14 59:7 60:23 publicly 5:3 pull 26:7 pulled 24:4 pulls 22:25 pumped 12:25 47:2 pumping 12:10 13:12 pure 39:10 purpose 4:20 7:13 10:21 pursuant 3:20,24 put 19:9 27:13 30:21 31:23 32:1 33:17 45:11,14,19 48:13 53:12,21 54:2,3,5,6 54:12 putting 22:5 48:24 58:15 pyrite 37:23 P-O-W-E-L-L 44:13 p.m 3:1 59:7	29:25 55:19,25 questions 4:23 21:10 28:20 56:15 quick 14:5 58:8 quickly 40:25 quote 35:24 36:25 44:14 45:14 quote/unquote 29:22
R				
radiation 30:22 radium 30:22 radius 15:5 raise 50:23 raised 21:1 Raisin 14:13 15:6 17:24 20:24 22:3,4 41:13 42:7 43:16 49:23 50:1 53:9 ran 46:24 range 37:17 38:15,19 38:23 ranges 38:14 rapidly 40:19,22 rate 10:9 reached 35:20 reactions 41:8 reacts 40:22 read 6:21 16:13 30:10 46:7 49:2 53:22 54:25 55:2 readily 39:14 reading 39:2 Ready 23:3 reality 36:14 really 21:9 28:7,19 32:9 33:15 48:5 52:17 53:25 54:1,9 57:6 58:2 reason 47:5,6 reasons 28:24 receive 6:5 received 5:14 6:14 44:21 recognized 37:16 recommend 15:2 record 4:16 5:17 6:3 6:12,22 11:12 14:6 17:7,16 25:13 56:4 58:20,22 recorded 5:4 40:15 recording 10:8,13 records 31:13 recreate 52:25 red 35:4 reduced 60:10 refer 15:16				
Q				
qualitative 43:5 Quality 43:24 51:11 quarter 4:17 20:17 42:6 quarterly 10:14 quarter-mile 15:5,9 quartz 37:22 question 20:11 28:7,9				

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 68

refers 37:13 refinery 13:10,13,17 regarding 3:16 7:7 regards 27:11 region 6:10 15:17,22 16:6 regional 41:22 registration 6:2,7,23 regular 23:19 33:11 regulate 31:16 54:12 regulated 21:16 regulation 3:23 19:5 regulations 4:3 7:14 41:21 53:20,22 54:25 regulators 21:20 regulatory 4:22 5:4 related 35:16 37:7 relationship 38:22 released 30:24 reliability 46:6 reliable 47:4 rely 47:14 remember 30:12 33:8 49:18 remover 25:5 reopen 45:13 repeat 52:12 repeatedly 56:14 replacement 38:21 reply 56:16 report 31:23 32:2,4,6,8 36:24 47:17 reported 10:11 40:17 47:15,20 60:8 reporter 5:5 6:25 16:16 60:1 reporting 1:25 2:18 7:25 10:13 33:11 39:23,24 reports 35:15 represent 49:8,9 51:5 representative 29:18 29:20 representatives 45:24 52:14 representing 3:7 reptiles 16:3,10 reputable 32:10 requested 56:12,13 require 15:3 41:22 required 46:17 requirements 4:1,8 5:9 7:23 10:22 requires 7:21 research 13:3 42:18 researchers 39:23	40:1 41:6 resident 20:7 residents 51:14 resource 19:23 44:2 Resources 36:24 respect 7:23 respond 5:13 response 6:5 57:5 responses 37:4 responsibilities 10:19 responsible 10:8,12 responsiveness 5:16 6:13 result 27:10 35:21 results 40:3 Retiles 15:17 revealing 44:24 45:11 45:18 review 6:14 15:3,9 reviewed 5:15 rid 31:25 right 17:14 19:13 22:3 22:10 24:15 30:22 47:16 49:25 53:3,9 53:11,16,16,19 54:21,22,22 55:4,6 55:14,15 56:25 risk 47:25 risking 33:3,4 river 14:13,17 15:7,10 15:11 17:24,25,25 18:1,1 20:24 22:3,4 33:5 41:13 42:7,15 43:12,14,16 47:20 49:23 50:1 53:9,9,17 rivers 42:14 road 53:2,3 roads 27:19 30:6 rock 8:16,18 13:1 14:15 36:13 40:9 rocks 37:11,14,21,23 38:4 role 5:11 12:2 Ronald 36:22 ROSE 1:25 2:18 roughly 40:8 RPR 2:22 60:22 ruin 20:23 rule 19:8 rules 19:3,3 27:4 44:16 runway 41:4 rural 18:5 rust 58:12 rusts 58:15	s 55:3 sacred 44:8 safe 3:25 33:9 39:22 safeguards 10:24 14:10 safety 57:2,22,24 salamanders 15:19 salina 36:10,18,21 39:9,12 41:9,10 salinic 36:3 40:16 salt 39:3 saltwater 1:5 5:20 30:9 sample 48:23 samples 39:1 sand 24:17 43:14 51:23 Sandstone 8:10 sandstones 38:7 saw 53:22 57:17 saying 26:23 says 16:21 19:8,11 22:9 46:14 51:10 science 29:9 50:14 scientific 16:14 scientist 3:5 7:4 scientists 3:10 21:20 42:18 screws 23:10 seal 9:7 sealed 47:1 season 18:21 second 45:22 56:17 Secretary 41:23 section 3:23,24 35:22 41:19,21 46:23,25 53:23 57:18 sedimentary 37:14 see 15:4 18:20 22:7 23:8 24:2 27:6 30:17 31:2,19 53:7,24 58:11,14 seen 15:15 46:21 seepage 41:4 sell 50:25 send 31:13 sent 55:14 separated 8:14 separation 48:13 49:14 September 44:15 48:3 series 37:2 serious 35:20 serves 9:18 Service 42:3,11 session 4:20,21 12:5 set 8:23 9:2,5,6 14:10	60:9 shake 19:18 shale 8:17 12:16 13:1 14:15 37:8 38:3 shales 37:14 shallower 39:24 share 4:23 sharply 40:2 sheet 6:7 shocked 21:18 shoreline 22:15,17 show 39:13 41:2 58:22 shows 38:9 39:3 shrub 43:3 shut 22:13 sic 42:12,23 Sierra 14:23 31:22 32:9 signed 11:9 significance 43:17 significant 4:13 33:12 42:8,18 sign-in 6:7 silt 37:17 siltstones 37:15 38:3 similar 40:9 sincerity 49:5 single 19:22 site 17:25 18:11,17,20 18:24 19:1 41:15 42:5,16 43:16 53:1 sites 43:17 sits 32:24 sitting 58:9 size 37:16,17 sizing 19:17 skinks 15:19 skipperling 15:15 slope 53:13 slow 27:18 small 41:3 42:7,14 43:2,3,9,15 47:23 53:6 smell 25:7 48:16 snakes 15:19 soccer 48:18 sodium 23:21 39:6 40:20 soil 13:13 57:2 sold 13:11 solids 7:19 solubility 40:1,4 solution 45:1 solutions 39:3 40:24 somebody 55:12 something's 54:24 sorry 4:2 46:14	sort 21:19 sound 25:10 source 8:8,15 47:25 sources 4:6 7:16,17 7:20,21 9:21 10:25 41:12 42:24 44:8 south 21:16 49:25 57:19 southern 19:18 21:17 42:19 43:1 space 9:7,8 speak 11:20 25:24 26:5 30:17 31:2 44:25 50:5,10 58:25 speaker 21:1 26:25 56:5 speaking 25:23 47:11 48:8 52:14 specialist 2:11 3:13 species 14:25 15:14 15:15,20 16:3,7,21 41:20 42:1,3 specific 9:23 10:1 12:7 specifically 12:8 14:13 16:2 35:23 41:19 specifications 27:3 spell 11:11 50:8 spent 23:16 spilled 47:19 spills 27:7 33:4 43:19 spinal 34:5 spoken 46:3 spokesmen 49:9 square 9:16 SS 60:4 St 18:1 staff 59:1 stainless 58:15 Standard 13:10 standing 23:7 54:24 stands 51:12 start 10:5 11:8,20 25:21,22,22,23 started 49:18 starts 23:1 49:23 state 1:2 3:22 7:12 10:20 11:10 19:2,11 22:11,13 29:4,5 31:23 32:8 35:9 37:8 45:24 48:1 49:16 50:8 60:3 stated 12:15 31:12 statement 5:24,25 6:4 6:21,24 14:6 19:1 51:25 statements 5:4 6:18 states 3:5 7:5 13:16
--	---	--	--	---

S

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 69

30:3,3,4 33:1,3,17 35:23 36:25 41:20 42:11 46:11 57:9 steel 9:5,5 26:17 46:19 46:25 58:11,15 stenographically 60:8 Steve 58:8 Stewart 28:22,23,23 stick 26:2 stone 36:8 stop 49:10 stopping 55:3 stored 44:7 storefronts 52:21 strata 8:17 36:20 39:7 stream 42:14 44:9 streams 42:25 string 9:2 stringent 4:8 stringently 21:16 strip 52:21 strontium 30:23 structure 13:1 studies 29:16 31:2,19 31:21 32:11,18 41:2 study 30:17,19 stuff 25:8 subject 3:19 8:1 38:7 44:18 56:19 subjects 20:12 submit 5:22 submitted 6:9 subsequently 38:17 subsurface 36:25 sucrosemic 36:13 sudden 18:15 sufficient 35:24 suggested 36:18 sulfate 38:17 sulfates 40:23,23 summary 5:16 6:13 supervision 60:11 supervisor 52:10 sure 6:1,6 11:14 13:4 13:21 17:8 49:5 51:4 53:18 surface 7:9 8:4,7,11 8:14,23,25 9:1,4 13:7 20:15 39:25 46:20 surprised 16:17 Survey 36:23 Susan 28:22,23 Susanne 42:17 SWD 8:6 14:11 swell 40:10 swelling 40:13,14	sworn 5:6 syndrome 34:13 system 34:25 S-T-E-W-A-R-T 28:23 T table 6:2,7 14:2 take 9:4 11:16 24:18 26:5 51:3,15,24 taken 45:4 takes 39:18 54:17 talk 13:14,18 29:17 51:14 talked 16:19 17:15 32:22 talking 26:21 30:13 51:17 tank 23:4 tarsands 32:24 teach 29:9 teacher 50:14 team 16:8 17:6 technical 4:8 technician 26:18 technologies 44:8 tell 5:7 11:1 19:13 30:21 54:2 telling 53:21 temperature 22:22 39:20 temperatures 39:19 ten 23:19 43:13 teratogenic 35:12 term 37:7 terminology 37:1 terms 5:8 37:2,5 terrible 16:15 test 23:16,18,24 25:16 47:3,9 tested 9:12 testimony 5:6 testing 7:24 56:8,9,18 56:22 58:3 tests 23:19 Texas 33:1 40:18 50:25 thank 14:3 17:1,5 20:3 21:2,2 28:2,2,21 44:11 50:3 52:5 55:18 58:5 59:5 thanks 23:11 33:18 they'd 51:12 thick 36:4 39:9 40:10 thickness 35:24 thing 15:2 16:17 22:25 29:12 46:7 48:9 55:4 55:6,8,16	things 13:21 18:17 19:4,19 22:19 25:21 26:6 48:5 52:12 think 12:15,17 13:11 17:13 19:1,12,15 25:6 26:24 27:1,8,11 27:13,20 48:21 49:21 51:16 54:8 55:1 thinking 58:10 thought 29:23 57:6 58:17 thousands 30:14 threat 14:12 41:12 threaten 7:16 threatened 15:23 16:4 42:1 three 21:14 23:23 25:19 38:9 42:13 46:17 56:16 three-foot 46:25 throat 34:7 thumped 23:5 tied 54:10 Tiffin 18:1 Tim 3:10 7:3 17:5 time 12:1 18:13,16 20:21 25:24 31:5 55:9 60:9 timely 27:16,18 times 40:4 Timing 38:23 Timothy 2:7 tiptoes 53:10 tiredness 34:16 tires 23:5 Title 3:23 today 7:6 21:13 today's 8:1 told 50:15 tonight 3:6 5:25 11:25 12:5,17 16:23 26:21 28:7,24 31:8 44:18 51:2,16 59:1 tonight's 3:20 top 17:22 23:6 46:18 57:11,14 Toralyne 34:12 total 7:19 8:7 24:21 tough 20:3 town 13:8 29:13 57:19 57:19 township 3:18 18:7 20:7 52:10,16,22 53:4 toxic 34:14,23 35:19 43:21 45:18	track 27:6 49:8 tranquil 20:8,16,23 transcribed 6:25 transcript 6:8 transcription 60:11,13 transporting 32:23 tributary 22:5 Trillion 44:15 trip 27:25 Trolls 22:12 trouble 34:8 truck 23:1,1 true 32:8 60:12 trust 27:2 54:15 trying 24:22 tubing 9:5,7,8 46:19 46:24 58:11,15 turn 7:1 53:7,8 turned 20:18 25:25 turning 26:1 turns 44:20 46:4 turtles 15:19 twice 49:21 two 3:9 23:23 27:11 33:6 37:16 42:8,17 49:1 51:19,20,20,22 57:12,13 type 17:23 27:2 38:21 39:1 types 8:18 24:3 U U 29:16 30:16,17 31:19 UIC 4:5 5:19 7:22 ultimately 17:20 19:20 underground 1:7 3:11 3:21 4:1,5,6 5:9 7:11 7:13,16,17 8:8,15 9:21 10:25 11:3 41:12 understand 12:12 13:19 22:14 46:1 understanding 4:24 12:2 unearthed 46:19 UNIDENTIFIED 26:25 56:5 unique 17:23 United 3:5 7:5 13:16 33:17 42:11 57:9 universe 19:23,24 22:8 unloading 23:1,4 unstable 40:24 uplift 41:6 upper 36:5	upset 32:3 upward 8:20 53:14 urine 35:6 USC 41:20 USDW 35:20 USDWs 36:1 use 36:3 U.S 11:7 22:16,17 32:20 42:3 V valuable 19:22 value 44:2 variabilities 38:8 various 8:18 Vermont 29:5 vertical 41:6 vicinity 8:9 Victoria 44:12 50:11 51:5,17 56:7 video 29:14 view 29:15 views 5:3 violations 48:2 vision 34:18 visit 18:20 52:25 visual 34:13 vital 51:24 vogular 36:13 volume 10:10 40:11 45:25 vomiting 35:6 voted 51:20 V-I-C-T-O-R-I-A 44:13 W wake 25:20,21 walked 23:4 53:5 want 6:4 18:10 20:23 22:12,13 24:19 25:6 25:7 27:24 29:3 30:21 46:7,8 48:12 49:10 53:12 54:3 55:5,5,15 57:22,24 58:2 wanted 46:13 48:5 50:5 56:7,17 wanting 48:24 49:6 wants 11:15 wash 15:10 wasn't 19:22 50:10 waste 8:12 13:13 21:15 30:5 32:1,16 45:18 wastewater 48:23 watching 23:9
---	---	---	---	---

US Environmental Protection Agency - April 30, 2013
FINAL - Public Hearing

Page 70

water 3:25 4:7 7:17,18 7:20,21 8:9,16 9:9 9:21 10:25 14:2 17:19 18:22 22:18 23:16,17,18,19 24:13 25:16,17 26:23 32:13 33:9 37:24 38:2,6 39:15 39:18 40:12 41:13 42:24 44:2,3,8,8,9,9 45:14 47:24,24,25 50:15,25 52:17,23 56:8,9,22 57:2,9 58:3 watershed 20:24 watersheds 18:3 Wawczak 2:8 3:12 way 24:19 26:10 33:1 49:8,24 54:24 57:16 weakness 34:16 wealthy 47:24 56:21 week 48:17 weekend 48:15,16 weekly 10:10 weeks 29:13 weight 35:17 welcome 50:7 welded 22:24 wellbore 46:24 wellhead 9:17 wells 4:8 7:15 10:17 21:17,19 27:11 28:8 28:13,15,17 29:23 30:1,1,6 31:8 44:18 44:22 45:2,12,16,19 46:4 48:25 52:15 53:22 57:10,17 went 25:13 29:13 46:15 48:20 West 3:16 7:8,10 10:4 10:7,11,15,17,17 11:4 17:8 27:13 36:3 36:7,10,16,17 39:5 wetland 43:3 wetlands 42:22 43:3,8 we'll 11:8 57:7 we're 21:9 22:22 24:13 24:16,18 26:20 29:24 30:2,13 32:1 48:10 51:1 52:15 54:11 56:25 57:25 we've 27:1,23 white 36:10,18 37:6,10 wildflowers 20:22 William 1:13 2:5 3:4 wish 5:25 11:19 51:12 58:23,25	withdrawn 16:20,22 wonderful 45:9 46:9 wooded 43:15 wooden 42:9 woodland 43:2,10,15 woodlands 43:8 woodlot 42:15 43:4 woodlots 42:13 word 5:5,5 18:14 19:7 26:6 words 54:2 work 23:2 worked 22:21 26:18 working 26:17 world 17:17 22:10,18 worst 54:3,5 worth 56:24 write 11:19 writing 5:14 25:25 26:1 59:2 written 5:23 6:9,17 58:24 wrong 31:10 55:11,12 wrote 32:6 Wyoming 20:2 X xylene 34:19,21 Y yards 48:17 year 12:23 16:19 20:21 25:12,25 39:17 44:19 45:21,22 48:8 48:8,10 49:4 57:14 years 9:14 12:22,22,23 13:13 21:14 23:23 23:23 25:19 26:19 26:23 28:18 31:9 33:6 34:11 39:17 41:5,11 46:17,22 50:16,24 54:17,25 57:12,13 58:10 York 2:20,20 30:5 32:19 37:8 younger 49:18 YouTube 29:15 Z zone 8:11,14,21 35:23 36:5,12 39:9,11 zoned 18:8,14 \$ \$25,000 10:21 55:20 \$300 23:16	\$600 56:24 \$80,000 49:16 # #22 36:17 #9 1:5 5:20 8:6 14:11 36:21 0 01 40:3 06 43:13 1 1 30:13,13,14 35:22 1st 29:1 1,000,000 48:1 1,200 39:5 1,290 40:8 1-800-825-3341 1:25 2:21 1.234 10:1 1.7 40:15 57:15 1/16 37:18 1/2 9:2,5,8 1/256 37:18,19 10 12:22 10,000 7:18 40:16 10,368 22:17 10/7/18 60:25 10011 2:20 11 8:23 11th 42:3 12,000 31:8 124 4:2,2 125 4:2 13 41:5 46:22 14th 6:17 59:3 144 4:2 144.4 41:19 146 4:2 146.62 35:22 147.1151 3:23 15 26:18 1531 41:20 16 41:20 17 25:2 42:23 47:20 57:18 1890s 54:11 19 42:22 1965 40:17 1967 42:4 1980 44:20 45:9 1984 4:4 1988 45:9 2	2 35:22 2,653 8:16 2,870 7:9 8:13 9:3,25 20 12:22 21:16,17 26:19 28:18 41:11 48:17 50:16,24 200 15:6 34:20 56:24 200,000 44:22 2005 45:10 2007 46:16 47:12 2010 23:17 2013 1:11 4:16 6:17 29:3 59:3 21 22:9 217 8:10 22 12:10,23 16:4 25 4:4 36:25 51:2 2600 14:15 2662 36:19 28 39:9 40:9 2830 36:4 2870 36:5,11 3 3 40:4 42:25 3,000 12:13 39:20 3,100 8:7,13 3,288 22:15 3/4 8:23 30 1:11 18:25 28:18 30th 4:16 3032 36:19 3100 36:11 33 47:18 350 8:23 3500 39:25 37,600 39:6 4 4.1 22:12 4.7 40:15 40 3:23 28:19 35:22 36:4 39:19 41:19 57:8 402 41:22 43 40:6 58:10 45 57:10 5 5 6:10 9:2,5,8 40:4 5,241 22:16 5/8 8:25 50 12:22 13:13 26:23 32:15 41:21 43:10 43:10 50s 13:9	55 42:21 6 6 42:23 60 33:1 40:11 65 35:8 680,000 21:19,20 7 7:00 3:1 70 40:16 41:21 737 9:16 76 16:3 8 8 8:25 8:47 59:7 80 2:19 84 22:9 85 39:21 9 9 57:17 930 8:25
--	--	---	--	--