

1 JAMES R. ARNOLD (SB# 56262)  
2 THE ARNOLD LAW PRACTICE  
3 (Contra Costa Office)  
4 3685 Mt. Diablo Blvd., Suite 331  
5 Lafayette, CA 94549  
6 Telephone: (925) 284-8887  
7 Facsimile: (925) 284-1387  
8 E-mail: jarnold@arnoldlp.com

9 Attorneys for TBS Petroleum, LLC

10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

**STATE OF CALIFORNIA  
REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION**

CAO No. R5-2011-0713

**IN RE: CLEANUP AND ABATEMENT  
ORDER R5-2004-0713, ISSUED TO  
TBS PETROLEUM, L.L.C., ANTLERS  
SHELL/SUBWAY, 20884 ANTLER'S  
ROAD, LAKEHEAD, SHASTA  
COUNTY**

**DECLARATION OF  
CHRISTOPHER J. WATT**

CAO Issued Dec. 6, 2011  
Hearing Date: June 7-8, 2012

I, Christopher J. Watt, hereby declare:

1. I am the Geo-Environmental Services Director with LACO Associates, 311 South Main Street, Ukiah, California. I have personal knowledge of the following facts and if called as a witness could and would competently testify thereto.

2. I received my Associate Science degree in Physical Sciences (Chemistry Major) at Long Beach City College, and my Bachelor of Science degree in Geology from Humboldt State University.

3. I have been working as a consulting geologist since 1996, and a professional Geologist since 2003, a certified engineering geologist since 2006, and a certified hydrogeologist since 2011. I am a member of the Groundwater Resources Association, the Association of Environmental and Health Sciences, and the Association of Environmental and Engineering Geologists.

1           4. I have over fifteen (15) years of experience in environmental investigation and  
2 geologic site investigations. My specialties include hydrogeologic and geotechnical  
3 investigations, air/water quality monitoring, and stream restoration. My experience with projects  
4 includes designing and operating remediation and water supply systems, Phase I and Phase II  
5 Environmental Site Assessments, fault hazard evaluations, foundation recommendations, and  
6 slope stability assessments.

7           5. My experience as to the investigation of contaminated petroleum sites includes over  
8 100 properties using direct push, rotary auger drilling, backhoe pits, and hand auger. I have  
9 designed hundreds of monitoring well networks and logged thousands of lineal feet of borings.  
10 My firm, LACO Associates, is a C-57 licensed driller and has owned and operated drilling rigs  
11 for over 25 years. As for remediation of contaminated petroleum sites, I have handled  
12 remediation of over 100 properties in California including methods such as excavation, soil vapor  
13 extraction, dual-phase extraction, pump and treat, in-situ chemical oxidation, enhanced bio-  
14 remediation and natural attenuation.

15           6. My firm, LACO Associates was retained by TBS Petroleum, LLC. We have explored  
16 the subsurface, collected soil and groundwater samples, identified neighboring domestic wells  
17 and collected samples, and provided design recommendations for treatment of water from the  
18 onsite groundwater well. We were hired to review the case, prepare and carry out a workplan,  
19 and provide various technical reports. We are currently under contract with TBS Petroleum,  
20 LLC, to prepare and implement a workplan to map the offsite extent of the MTBE plume, and  
21 prepare a technical report.

22           7. At the request of TBS Petroleum, LLC some time ago, we investigated and considered  
23 the claim that a water line leak was the source or cause of the MTBE found in the onsite well in  
24 2007. We found no evidence to support this interpretation. The cause of the MTBE in the well is  
25 from normal migration through fine grained soils over a period of 10 years -- moving very slowly  
26 each year in a downgradient direction from its point of release. There is significant evidence in  
27 the record that supports our conclusion. I am aware of the review and analysis of the data as to  
28

1 the source of the MTBE in the well by Regional Board staff (Grant Stein) in a report in the  
2 Redding office of the Regional Board, which was made to Eric Rapport, Assistant Executive  
3 Officer, April 27, 2010. That report (CT Exh. 39, p. 7 (p. 5)) states:

4 " Preliminary dispersion estimates depend strongly on initial MtBE concentration,  
5 therefore I also used partitioning coefficients to estimate pore water MtBE from 1997 soil  
6 concentrations.

7 Assuming no biodegradation, a conservative fraction of organic carbon of 0.001 for  
8 colluvium, and 8.0 liters per kilogram (Ukg) for MtBE soil organic partitioning coefficient  
9 (Koc), and maximum MtBE in soil of 85 mg/kg (0.085 1-19/kg), I estimated pore water  
10 concentration of MtBE of 1,130 1-19/L, about two orders of magnitude lower than  
11 maximum MtBE found to date in groundwater.

12 This indicates soil sampling during the tank removal may have underrepresented  
13 maximum source concentrations. It also shows that 49,000 1-19/L for Co is conservative  
14 based on current data.

15 The above suggests that an MtBE release near the USTs, around 1997, dispersed  
16 continuously and began to reach the domestic well beginning about 10 years later.

17 The model is preliminary, useful strictly to support a site conceptual model, and subject to  
18 revision based on further data. However, predicted concentrations in the well are within  
19 range of those observed.

20 I also plotted observed MtBE concentration results from the domestic well vs. time;  
21 results suggest time-discrete pollution in fractured bedrock, rather than a continuous  
22 source.

23 These conclusions correspond with the analyses and evaluation I have done. To put it  
24 clearly, there would have had to been a significant release of MTBE for it to move to the drinking  
25 water well in the soils and groundwater situation that exists on the Property.

26 8. The waterline that was claimed to have leaked is a small diameter line that runs across  
27 the property to provide water to the water/air stand for cars. Based on my experience, it is highly  
28 unlikely that enough water could have come out of a break in that line that could push the MTBE  
through the soils into the well in a short time.

9. Based on the information I have, the records I have reviewed, and the conditions on the  
ground there is no other reasonable source for the MTBE in the domestic water well than the  
MTBE known to be in the soils in 1997.

10. As for the project to characterize the contamination on the Property, this appears to

1 me to be a fairly straightforward and typical petroleum UST case. It has already taken 4 years to  
2 get to the point we are at, and it could take 4 to 6 years more. I believe that a remediation will be  
3 successful in that much time. A lot depends, in my experience on the regulatory interaction that  
4 is needed, as well as the funding available. All the surrounding property owners (there are over  
5 10 wells within 1,000 feet) have been cooperative with access permissions. They all want this  
6 problem taken care of.

7 11. I have been working for a lot of "RPs" over the last 15 years. TBS, and Tony  
8 Ackernecht and Jim Seiler, have been as responsive and forthright as any RPs ever are in these  
9 tough situations.

10 12. We prepared the "de facto" application to the UST Cleanup Fund. I know it has been  
11 rejected, and the Fund has sent Tony a letter recently that sets out two scenarios. In one scenario  
12 TBS may be able to access the Fund if the current tanks were the source of the MTBE leak. The  
13 evidence we have to date is that they are not. The other scenario described by the UST Fund is  
14 that if the source of the MTBE in the drinking water well is the tanks pulled and replaced in 1997,  
15 the only applicant who would qualify is Mr. Bob Davis.

16 13. I know John Aveggio, the environmental consultant for Mr. Davis. I learned recently  
17 that he passed away unexpectedly. Although I did not agree with his conclusions as to the source  
18 of the MTBE being some sort of water leak in recent times, I respected his work and his efforts  
19 on behalf of his clients.

20 14. Based on my experience and my knowledge so far of this site, it should be a \$500,000  
21 to \$600,000 cleanup. The MTBE appears to be restricted to the site, and is constrained -- or  
22 stuck- in the fine-grained soils. We don't know yet if it has migrated downward, though, to  
23 bedrock. We expect to be drilling to find out the last two weeks of May. By the end of the  
24 month, TBS will have spent a total of about \$150,000 in investigating and remediating this  
25 property.

26 15. As for whether TBS has been "responsive" to the Regional Board's directives and  
27 requirements, in my opinion it -- and our office -- has been very responsive. A couple of times  
28

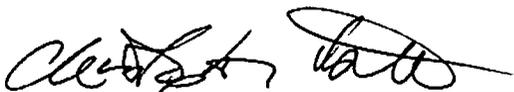
1 we did experience delays because we were waiting for Davis to step up and cooperate.

2 16. The MTBE levels are increasing in the onsite groundwater well. As background,  
3 water treatment systems are needed on most wells in this area because of high iron content and  
4 acidic condition of the water itself. If a business wants to sell food, or provide lodging, or house  
5 office workers (for instance, CALTRANS), the business generally needs to install a water  
6 treatment system for the iron and acidic condition of the water. The well on this Property has  
7 always had a treatment system on it. What we are seeing now, though, is that a system designed  
8 to treat increasing levels of MtBE is probably necessary.

9 17. I don't know what will happen with the UST Cleanup Fund. I don't know what effect  
10 the new closure policy may have. It will not apply here, though, because this Property and the  
11 surrounding area are not serviced by a public water system.

12 I declare under penalty of perjury under the laws of the State of California that the  
13 foregoing is true and correct. Executed this 10<sup>th</sup> day of May, 2012, at Ukiah, California.

14  
15 Dated: May 10, 2012

  
CHRISTOPHER J. WATT

16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

1 PROOF OF SERVICE

2 I am employed in the County of Contra Costa, State of California. I am over the age of  
3 18 am not a party to the within action. My business address is 3685 Mt. Diablo Boulevard,  
4 Suite 331, Lafayette, California 94549.

5 On May 10, 2012, I served the following document described as:

6 *DECLARATION OF CHRISTOPHER J. WATT*

7 on all interested parties in this action by placing a true copy thereof enclosed in sealed  
8 envelopes addressed as stated on the attached service list.

9  **BY MAIL** – I deposited such envelope in the mail at Lafayette, California. The  
10 envelope was mailed with postage thereon fully prepaid. I am “readily familiar” with the firm’s  
11 practice of collection and processing correspondence for mailing. Under the practice it would  
be deposited with the U.S. Postal Service on that same day with postage thereon fully prepaid at  
Lafayette, California in the ordinary course of business.

12  **BY PERSONAL SERVICE** – I caused said document to be hand delivered to the  
13 offices of the addressee(s) shown on the attached service list.

14  **VIA FACSIMILE** – I faxed said document, to the office(s) of the addressee(s) on the  
attached service list, and the transmission was reported as complete and without error.

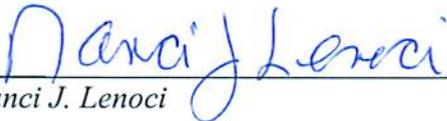
15  **BY ELECTRONIC TRANSMISSION** – I transmitted a PDF version of this document  
16 by electronic mail to the party(s) identified on the attached service list using the e-mail  
17 address(es) indicated.

18  **BY OVERNIGHT DELIVERY** - I deposited such envelope for collection and  
19 delivery by Federal Express with delivery fees paid or provided for in accordance with ordinary  
20 business practices. I am “readily familiar” with the firm’s practice of collection and processing  
21 packages for overnight delivery by Federal Express. They are deposited with a facility  
regularly maintained by Federal Express for receipt on the same day in the ordinary course of  
business.

22  (State) I declare under penalty of perjury under the laws of the State of  
California that the above is true and correct.

23  (Federal) I declare that I am employed in the office of a member of the bar of this  
24 Court at whose direction the service was made.

25 Executed on May 10, 2012, at Lafayette, California.

26   
27 Nanci J. Lenoci

SERVICE LIST

<b>DESIGNATED PARTY: BOB DAVIS</b>	<b>DESIGNATED PARTY: CLEANUP TEAM</b>
Mr. Bob Davis c/o Loren J. Harlow, Esq. Stoel Rives, LLP 500 Capitol Mall, Suite 1600 Sacramento, CA 95814  Phone: 916-447-0700 Fax: 559-227-3600 Email: <a href="mailto:ljharlow@stoel.com">ljharlow@stoel.com</a>	Mr. Grant Stein Engineering Geologist Central Valley Water Board 415 Knollcrest Drive Redding, CA 96002  Phone: 530-224-4788 Fax: 530-224-4857 Email: <a href="mailto:erapport@waterboards.ca.gov">erapport@waterboards.ca.gov</a>
	Ms. Pamela Creedon Executive Officer Central Valley Region, RWQCB 11020 Sun Center Drive, #200 Rancho Cordova , CA 95670-6114  Phone: 916-464-4615 Fax: 916-464-4645 Email: <a href="mailto:pcreedon@waterboards.ca.gov">pcreedon@waterboards.ca.gov</a>
	Mr. Robert Crandall Assistant Executive Officer Central Valley Water Board 520 Knollcrest Drive Redding, CA 96002  Phone: 530-224-4845 Fax: 530-224-4857 Email: <a href="mailto:rcrandall@waterboards.ca.gov">rcrandall@waterboards.ca.gov</a>
	Mr. Eric Rapport Senior Engineering Geologist Central Valley Water Board 415 Knollcrest Drive Redding, CA 96002  Phone: 530-224-4998 Fax: 530-224-4857 Email: <a href="mailto:erapport@waterboards.ca.gov">erapport@waterboards.ca.gov</a>

1 PROOF OF SERVICE

2 I am employed in the County of Contra Costa, State of California. I am over the age of  
3 18 am not a party to the within action. My business address is 3685 Mt. Diablo Boulevard,  
4 Suite 331, Lafayette, California 94549.

5 On May 10, 2012, I served the following document described as:

6 *DECLARATION OF CHRISTOPHER J. WATT, PG CEG, CHG*

7 on all interested parties in this action by placing a true copy thereof enclosed in sealed  
8 envelopes addressed as stated on the attached service list.

9 [ ] **BY MAIL** – I deposited such envelope in the mail at Lafayette, California. The  
10 envelope was mailed with postage thereon fully prepaid. I am “readily familiar” with the firm’s  
11 practice of collection and processing correspondence for mailing. Under the practice it would  
be deposited with the U.S. Postal Service on that same day with postage thereon fully prepaid at  
Lafayette, California in the ordinary course of business.

12 [ X ] **BY PERSONAL SERVICE** – I caused said document to be hand delivered to the  
13 offices of the addressee(s) shown on the attached service list.

14 [ ] **VIA FACSIMILE** – I faxed said document, to the office(s) of the addressee(s) on the  
attached service list, and the transmission was reported as complete and without error.

15 [ X ] **BY ELECTRONIC TRANSMISSION** – I transmitted a PDF version of this document  
16 by electronic mail to the party(s) identified on the attached service list using the e-mail  
17 address(es) indicated.

18 [ ] **BY OVERNIGHT DELIVERY** - I deposited such envelope for collection and  
19 delivery by Federal Express with delivery fees paid or provided for in accordance with ordinary  
20 business practices. I am “readily familiar” with the firm’s practice of collection and processing  
21 packages for overnight delivery by Federal Express. They are deposited with a facility  
regularly maintained by Federal Express for receipt on the same day in the ordinary course of  
business.

22 [ X ] (State) I declare under penalty of perjury under the laws of the State of  
California that the above is true and correct.

23 [ ] (Federal) I declare that I am employed in the office of a member of the bar of this  
24 Court at whose direction the service was made.

25 Executed on May 10, 2012, at Lafayette, California.

26   
27 Nanci J. Lenoci

SERVICE LIST

ADVISORY TEAM:	CLEANUP TEAM:
<p>Mr. Kenneth Landau, Assistant Executive Officer Central Valley Regional Water Quality Control Board 11020 Sun Center Drive, Suite 200 Rancho Cordova, CA 95670</p> <p>Phone: 916-464-4726 Fax: 916-464-4645 Email: <a href="mailto:klandau@waterboards.ca.gov">klandau@waterboards.ca.gov</a></p>	<p>Mr. Clint Snyder, Senior Engineering Geologist Central Valley Regional Water Quality Control Board 415 Knollcrest Drive, Suite 100 Redding, Ca 96002</p> <p>Phone: 530-224-3213 Fax: 530-224-4857 Email: <a href="mailto:csnyder@waterboards.ca.gov">csnyder@waterboards.ca.gov</a></p>
<p>David P. Coupe, Esq., Senior Staff Counsel State Water Resources Control Board Office of Chief Counsel C/O San Francisco Bay Regional Water Quality Control Board 1515 Clay Street, Suite 1400 Oakland, CA 94612</p> <p>Phone: 510-622-2306 Fax: 510-622-2460 Email: <a href="mailto:dcoupe@waterboards.ca.gov">dcoupe@waterboards.ca.gov</a></p>	<p>Patrick E. Pulupa, Esq., Staff Counsel State Water Resources Control Board Office of Chief Counsel P.O. Box 100 Sacramento, CA 95812</p> <p>Street address: 1001 I Street Sacramento, CA 95814</p> <p>Phone: 916-341-5189 Fax: 916-341-5199 Email: <a href="mailto:ppulupa@waterboards.ca.gov">ppulupa@waterboards.ca.gov</a></p>