

IN THE UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
NORTHERN DIVISION

FRANK J. KELLEY, Attorney
General of the State of
Michigan, for the People
of the State of Michigan,

79-10100

Plaintiff,

v.

Civil Action No.

THE UNITED STATES OF AMERICA;
THE UNITED STATES DEPARTMENT
OF DEFENSE, The Honorable
HAROLD A. BROWN, Secretary of
Defense; THE UNITED STATES
DEPARTMENT OF THE AIR FORCE,
The Honorable HANS MARK, Acting
Secretary of the Department
of the Air Force,

Defendants.

U.S. DISTRICT COURT
EASTERN DIST. MICH.
JUL 11 1979

COMPLAINT FOR INJUNCTIVE RELIEF,
PENALTIES, AND DAMAGES

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Dated: AUG 29 1979

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NOW COMES the Plaintiff by their attorneys, Frank J.
Kelley, Attorney General for the State of Michigan, and
Stewart H. Freeman, Assistant Attorney General, and say:

1. This civil action seeks to compel Defendants to
remedy Defendants' toxic chemical contamination of groundwaters
underlying the Wurtsmith Air Force Base facility, Iosco
County, Michigan. In particular, the Attorney General asks
that Defendants be ordered to terminate its continuing
discharges of trichloroethylene to the groundwaters in
violation of federal and state water pollution control
laws, upgrade and provide necessary treatment for its
purging of contaminated groundwaters, now flowing from
under the Air Force Base through the soil towards surface

waters of the State, Van Etten Lake, Van Etten Creek, Lake Huron, the AuSable River, State Forest Lands, and private drinking water supplies. Plaintiff Frank J. Kelley requests that Defendants be required to complete a full scale hydrogeologic investigation which would, as a minimum, define the extent, direction and rate of movement of trichloroethylene contaminated groundwaters, and further asks that Defendants be ordered to excavate, isolate and dispose of soils around its facility contaminated with trichloroethylene and other chemical compounds. The flow of chemical contaminants from Defendants' facility has polluted, impaired and potentially destroyed groundwaters and surface waters once fit for human use and consumption, causing damage in excess of Ten Thousand Dollars (\$10,000). Attorney General Kelley demands that Defendants pay damages and penalties to compensate the people of this State for their pollution, impairment and destruction of ground and surface waters of this state. Plaintiff also asks that Defendants implement a complete, approved pollution incident prevention program and provide a safe potable water supply to the Air Force Base and private citizens whose wells are or may become contaminated.

2. Plaintiff Frank J. Kelley is the Attorney General for the State of Michigan.

3. Defendant United States Department of Defense is an executive department of the federal government. 5 USC § 101.

4. Defendant Harold A. Brown is the Secretary of Defense.

5. Defendant United States Department of the Air Force is an executive department of the federal government, created and existing by power, 5 USC § 102.

6. Defendant Hans Mark is the Acting Secretary of the Department of the Air Force.

7. The Department of the Air Force is organized under the authority, direction, and control of the Secretary of Defense, pursuant to 10 USC § 8010 et seq.

8. The State of Michigan, by Frank J. Kelley, Attorney General, gave notice on May 15, 1978, pursuant to § 505 of the Federal Water Pollution Act, 33 USC § 1365 (b)(1)(A), PL 92-500, as amended, and applicable United States Environmental Protection Agency Regulations, 40 CFR 135, 38 FR 15040, of its intent to file a civil citizen action against Defendant United States Department of Defense, and appropriate officials of that agency. Copies of this notice were served by mail upon The Honorable Harold Brown, Secretary of Defense, The Honorable John C. Stetson, then Secretary of the Department of the Air Force, and Colonel Richard Fouss, Base Commander, Wurtsmith Air Force Base. A copy of this notice is attached hereto as Exhibit A.

9. Defendant United States of America owns, and Defendant Department of the Air Force operates, the Wurtsmith Air Force Base near Oscoda in Iosco County, Michigan. At this facility the Air Force regularly flies and maintains aircraft used to train Air Force personnel and provide for the national defense.

10. Aircraft, aircraft parts, and other Base machinery have been cleaned inside or near Building Number 43 on the Wurtsmith Air Force Base facility. Building Number 43 is commonly referred to by Base personnel as the "jet engine buildup shop."

11. Defendant Department of the Air Force has used trichloroethylene, or products containing trichloroethylene, to clean, degrease, or otherwise maintain aircraft, aircraft parts, and other Base machinery in Building Number 43.

12. Trichloroethylene is a colorless liquid with a pronounced odor, and is slightly soluble in water. According to a recent United States Environmental Protection Agency Region V study, trichloroethylene is toxic to humans, mammals and aquatic life, and if inhaled, ingested or absorbed through the skin, may produce central nervous system disorders, narcosis, psychoses, pulmonary edema, nausea, vomiting, blurred vision, cardiac arrhythmias, as well as damage to the liver, kidney and spleen.

13. Trichloroethylene is a recognized mutagen (i.e., causes cell abnormalities), a proven animal carcinogen, a suspected human liver carcinogen, and has been placed on the 1978 Michigan Critical Materials Register. The Register lists toxic and other dangerous substances, use of which is required to be reported to the state annually.

14. Trichloroethylene had in the past been used to extract caffeine from coffee. Recent United States Food and Drug Administration rulings, however, ban industry from using trichloroethylene to process any foods.

15. The United States Environmental Protection Agency study also concludes that while an interim maximum level of two hundred (200) parts per billion of trichloroethylene in potable water is permissible as a short term guideline, this level is not intended to be an acceptable dose for a lifetime of exposure. Continuous exposure to drinking water contaminated with trichloroethylene is hazardous to health.

16. Building Number 43 has been the primary user of trichloroethylene on the Wurtsmith Air Force Base. Trichloroethylene was also used at the Base jet engine test facility. On June 26, 1979, state officials were made aware of another possible source of trichloroethylene contamination, an unapproved, unlicensed waste disposal area on the Wurtsmith Air Force Base. This dump has been used since the 1920s when the Base was first established.

17. The State has reason to believe that two (2) three thousand (3,000) gallon tank trucks filled with liquid chemical wastes, including trichloroethylene, have been buried on Base in or near the Skeel Road landfill. These tank trucks, originally used by the Air Force to refuel aircraft, were dropped into the ground approximately five (5) years ago. No protection against groundwater contamination was provided beneath the tanks. Holes were

simply dug in the ground, the tanks pushed in, covered with dirt and then filled with chemical wastes by means of an above ground access pipe.

18. The State also has reason to believe tank fire and safety valves have leaked, causing liquid wastes, including unknown amounts of trichloroethylene, to be discharged into the soil and groundwaters beneath and adjacent to the Wurtsmith Air Force Base. This discharge has poisoned Base security dogs and caused their nausea and vomiting.

19. Other dangerous materials the Air Force, on information and belief, may have placed in the dump include spent lubricating fluids, oil and grease, machine coolants, asbestos, acids, and heavy metals.

20. Defendants had a five hundred (500) gallon storage tank buried beneath Building Number 43 in 1962.

21. Waste trichloroethylene from the maintenance and cleaning of aircraft, aircraft parts and other machinery was drained into the buried storage tank. The tank remained operational until at least late 1977.

22. In October, 1977, a Wurtsmith Base housing occupant complained of a foul smelling odor in his residence tap water.

23. The foul smelling odor was trichloroethylene. Air Force investigators disclosed that trichloroethylene had run out of Building Number 43's buried tank, travelled through the soil and merged with the groundwaters underlying the Base used to provide water for domestic consumption by Base personnel.

24. According to a February 12, 1979 affidavit of Ronald Howard, a former civilian water plant operator at the Base, drinking water at the Base had been treated since at least the mid 1960s with sodium hexa-meta-phosphate. This phosphate additive masks odors in water. The necessity for masking odors in water may indicate that trichloroethylene contamination had continued unchecked for several years.

25. Sometime around November, 1977, the phosphate treatment was discontinued, and the foul smelling odor in the water became unmistakable.

26. The quantity and concentrations of trichloroethylene contaminating the groundwaters underlying and near the Base are presently unascertainable, due to the unrevealed amounts of trichloroethylene used at the Base, removed as waste and disposed of, and discharged into the ground. Upon information and belief, however, the State understands Defendants estimate the quantity of trichloroethylene used at the Base over the past fifteen years to be in excess of 5,000 gallons.

27. Trichloroethylene is detectable in water at a concentration of 1.0 parts per billion through standard analytical laboratory procedures.

28. Given trichloroethylene's indicated chronic toxicity, mutagenicity, known animal and suspected human carcinogenicity, experts employed by the State of Michigan

have determined that trichloroethylene should be removed from the groundwater to the level of detectability, 1.0 parts per billion. This level is consistent with the recommendations of a second study of trichloroethylene and ambient water quality criteria. That study, done by the United States Environmental Protection Agency, Office of Water Planning and Standards, Criteria and Standards Division, Washington, D.C., concludes that "because there is no recognized safe concentration for a human carcinogen, the recommended concentration of trichloroethylene in water for maximum protection of human health is zero." To afford adequate protection to the health, welfare and safety of the people and natural resources of Michigan, the State demands trichloroethylene be removed from the groundwaters to the level of 1.0 parts per billion.

29. Concentrations of trichloroethylene reported on December 8, 1977, measured at a Building Number 43 observation well by a Base civil engineer and analyzed at an official United States government laboratory facility, the Brooks Air Force Base, San Antonio, Texas, exceeded 27,000 parts per billion.

30. Until the Air Force finally revealed trichloroethylene contamination in late 1977, seven (7) wells existed at or near the Base facility. All seven (7) (Well Nos. 1, 2, 3, 4, 5, 18, 19) provided Base drinking water.

31. In the six (6) month period subsequent to the disclosure of trichloroethylene contamination (October 1977 - March 1978), well testing at Wurtsmith has established, in pertinent part, these high levels of trichloroethylene contamination:

<u>Well No.</u>	<u>Parts per billion</u>	<u>Date</u>
Base Housing	1100	Oct. 27, 1977
1	895.0	Nov. 22, 1977
2	134.7	Nov. 22, 1977
3	6731	March 16, 1978
4	Trace (less than 1.5)	Jan. 16, 1978 Feb. 22, 1978 March 21, 1978
5	2.7	Feb. 22, 1978
18	91.5	Feb. 22, 1978
19	65.9	Dec. 12, 1977

32. Summer 1978 well testing established continued high levels of trichloroethylene concentrations in the groundwaters:

<u>Well No.</u>	<u>Parts per billion</u>	<u>Date</u>
Base Housing	5.8	June 7, 1978
1	4.0	July 27, 1978
2	1.5	June 7, 1978
3	4356 4249	June 7, 1978 July 6, 1978
4	Trace (less than 1.5)	
5	3.9 2.5	June 7, 1978 Aug. 3, 1978
18	2.9	July 13, 1978
19	21.2	Aug. 8, 1978

33. On April 25, 1979, over one and one half (1 1/2) years after discovery of trichloroethylene contamination, results of well testing established that trichloroethylene remained in the groundwaters:

<u>Well No.</u>	<u>Parts per billion</u>	
1	480	
2	2.3	
3	2369	
4	Trace	
5	71*	*March 28, 1979 sample. No sample taken in April 1979.

34. Defendants' response to the rapidly expanding problem of trichloroethylene contamination was to offer promises, commissioning patently inadequate studies, and engage in what the Air Force must have known were grossly insufficient and futile efforts to abate and correct the spread of trichloroethylene.

35. Defendants met at the Wurtsmith Air Force Base on February 16, 1978 with State representatives and the United States Environmental Protection Agency concerning trichloroethylene contamination at and around the Base. Notes memorializing this meeting are attached hereto as Exhibit B.

36. At the meeting, the Air Force was instructed to remove the storage tank beneath Building Number 43 and clean the adjacent area by a date certain. At this meeting the State demanded, as it had requested and then demanded in the past, that the Air Force comply with all applicable state laws and regulations. The Air Force committed on February 16, 1978 that it would comply with all applicable state laws and regulations.

37. The five hundred (500) gallon storage tank beneath Building Number 43 was excavated in March, 1978.

38. Prior to excavation, the liquid and semi-solid contents remaining in it were pumped, collected and removed by Berlin and Farro, Inc., to Chemical Recovery Systems, Inc., a state approved facility, for what was alleged to be final disposal.

39. The State has no record or knowledge of the disposal of these trichloroethylene contaminated liquids and semi-solids.

40. The soil adjacent to the storage tank area was also excavated in mid-March, 1978.

41. During the excavation of the soils around the underground tank, or shortly thereafter, a member of the excavation crew became asphyxiated from the trichloroethylene vapors and had to be taken to the hospital.

42. Defendants sought the permission of State officials on several occasions to spread the contaminated soils and sludges excavated from the area of Building Number 43 on a Base rifle range or an unused aircraft runway.

43. From January 1978 on, in numerous written correspondence, discussions and telephone conversations between State and Wurtsmith Air Force Base officials, it was made clear to the Air Force by the State that the contaminated soil excavated from the area beneath and adjacent to Building Number 43 must be removed from the Base facility and disposed at a State approved landfill. Defendants were told time and time again that spreading the contaminated soil on a rifle range or old runway was not acceptable, as it would continue to threaten the safety of the environment. Finally, some eleven months later, on November 16, 1978, the trichloroethylene contaminated soils and sludges were removed from the Building Number 43 area. Despite the availability of an acceptable location contaminated soils and sludges still lay in an unused hangar on the Wurtsmith Air Force Base.

44. Frustrated by the passage of many months, meetings, unkept commitments, inaction and incorrect actions, the United States Environmental Protection Agency and the State of Michigan issued Joint Findings and Notice of Violation and Order for Compliance to Defendant Air Force on October 18, 1978. This document is attached hereto as Exhibit C.

45. In the Joint Findings and Notice of Violation and Order for Compliance, it was found that the Air Force had not yet properly removed and disposed of the contaminated excavated materials, and it was ordered that:

"F. The Air Force shall within 30 days of the effective date of this Order remove and dispose of all TCE-contaminated soils and sludges at Wurtsmith Air Force Base to a site approved by the MDNR."

46. Defendant Air Force chose to violate this Order. It remains today in continued violation since contaminated soils and sludges still lay on the Base.

47. The Air Force was informed by the State and the United States Environmental Protection Agency over 1 1/2 years ago that an extensive hydrogeological investigation was critically necessary to identify and evaluate the extent of the trichloroethylene contamination at, beneath and beyond the Wurtsmith Air Force Base. This investigation was to include an assessment of groundwater flow, direction of movement, depth, surface and subsurface soil characteristics, and the vertical and horizontal extent of the plume of contamination.

48. At the joint meeting held on February 16, 1978, the Air Force committed to hire within thirty (30) days a consultant who would complete the above described hydrogeological study and recommend a plan to purge the groundwaters contaminated by trichloroethylene.

49. The Air Force also committed at this February 16, 1978 meeting to implement this plan to purge trichloroethylene contaminated Base groundwaters in the "shortest possible time."

50. While a preliminary draft proposal for a hydrogeological study was made by Keck Consulting Services, Inc., of Lansing, Michigan, and submitted by the Air Force to the United States Environmental Protection Agency and the State, this preliminary study was not designed to provide full information necessary to evaluate the extent of the trichloroethylene contamination, groundwater flow, direction of movement, depth, surface and subsurface soil characteristics, and the vertical and horizontal extent of the plume of contamination. The preliminary study was designed only to propose a course of action Keck Consulting Services, Inc., would take if and when hired. Keck was neither hired nor authorized to do the full hydrogeological study required of the Air Force.

51. In its Joint Findings and Notice of Violation and Order for Compliance, issued October 18, 1978, the United States Environmental Protection Agency and State formally notified the Air Force of the obvious fact well known to the Air Force that no hydrogeological plan was ever implemented to study trichloroethylene groundwater contamination in the environs of the Wurtsmith Air Force Base.

52. Defendant Air Force was ordered in the October 18, 1978 document that:

"B. Within 15 days of receipt of this ORDER, the Air Force shall submit a plan and timetable, acceptable to the U.S. EPA and the MDNR, for a complete hydrogeological investigation to determine the rate and direction of groundwater flow and the extent of groundwater contamination. After the hydrogeological investigation is completed, the Air Force shall

provide all data generated by the investigation to the MDNR and the U.S. EPA for their review. If the MDNR or U.S. EPA determines the investigation is inadequate, the Air Force shall obtain and submit the additional data within 15 days.

C. Within 20 days of receipt of the results of the hydrogeological investigation, the Air Force shall submit a final remedial plan, acceptable to U.S. EPA and MDNR, to take remedial measures based on the results of the hydrogeological investigation. The final remedial plan shall include the use of a carbon filtration system, or an equivalent system, to treat all the TCE purge water and a schedule of implementation for the corrective actions listed in the final remedial plan.

D. Within 30 days after U.S. EPA and the MDNR have approved the final remedial plan the Air Force shall implement the plan described in C above."

53. Defendant Air Force chose to violate this Joint Order for Compliance as well. For nearly two (2) years now, the Air Force has ignored the need for a complete hydrogeologic investigation. Without full information, the precise short and long range impact of large unknown amounts of trichloroethylene discharged into the groundwaters underlying the Base and State over an extended period of years is unascertainable. And yet, to date, an acceptable plan and timetable for a complete hydrogeological investigation has not been submitted, let alone has a final remedial plan to treat and purge trichloroethylene contaminated groundwaters been implemented.

54. The Joint Order of October 18, 1978 also required that:

"E. Upon the effective date of this ORDER, and until item D above is

achieved, the Air Force shall undertake a program acceptable to U.S. EPA and the MDNR to minimize groundwater contamination and halt its spread."

55. Although a final remedial plan has been neither submitted nor implemented, an interim program, to minimize groundwater contamination and halt its spread was agreed to by the United States Environmental Protection Agency, State of Michigan officials and the staff of the Wurtsmith Air Force Base at the February 16, 1978 meeting. The Air Force committed to install a groundwater purge well pumping aeration and treatment system that would remove a minimum ninety percent (90%) of the trichloroethylene from contaminated groundwaters. If 90% removal could not be achieved, the Air Force committed it would obtain a carbon filtration or equivalent system. In any event, the Air Force agreed that aeration was only an interim solution to the problem, and committed they would quickly act to obtain a carbon filtration or equivalent system.

56. Defendant Air Force was notified in the October 18, 1978 Joint Findings and Notice of Violation that:

"8. Sample data collected by the Air Force, the MDNR, and the U.S. EPA from December 1977 to the present show that neither the 90% removal rate nor the nondetectable level have been achieved by the aeration system installed at Wurtsmith Air Force Base."

57. After committing to State and United States Environmental Protection Agency officials they would achieve 90% removal of trichloroethylene from groundwaters, the Air Force now attempts to relieve itself of their promise by describing 90% removal as merely "a goal."

58. State of Michigan officials have monitored the concentrations of trichloroethylene successfully purged from wells and groundwaters. The State has on numerous occasions over the past year and a half notified the Air Force that the interim aeration system is not performing satisfactorily, and that an activated carbon filtration system is necessary to prevent further continued contamination of the Air Force sewage treatment plant groundwater seepage lagoons.

59. The United States government, through Region V of the United States Environmental Protection Agency, has emphasized its position on this matter to the Air Force in a May 15, 1978 letter:

"I wish to emphasize the point made at the meeting among representatives of the Air Force, the MDNR, and the U.S. EPA on February 16, 1978. If the required level of treatment is not achieved by the aeration system, the Base must install a carbon filtration or equivalent system. Based upon data submitted by the Base to U.S. EPA up to April 18, 1978, the existing aeration system is not achieving a 90% removal rate. I fully support Mr. Bail's request that the Base move expeditiously to install additional treatment. If you have data that evidences consistent 90% removal we would appreciate receiving it."

60. Defendant Air Force has not kept its commitment to achieve a continuous 90% removal rate of trichloroethylene. Sample data collected by experts of the State indicate that often no better than 63% removal of trichloroethylene is being achieved.

61. Defendant Air Force committed at the joint February 16, 1978 meeting to obtain and operate a carbon filtration or equivalent system if the interim aeration system did not achieve 90% removal of trichloroethylene.

62. The Joint Order for Compliance, paragraph C, requires that the Air Force implement a final remedial plan, which shall include the use of a carbon filtration, or equivalent system, to treat all the TCE purge water, with a schedule of implementation for the corrective actions in the final remedial plan. Refer to paragraph 52, herein, or Exhibit C, attached hereto.

63. Defendant Air Force chose to violate this provision of the Order, and remains in noncompliance, since it has failed to submit, let alone, implement a final remedial plan.

64. Defendant Air Force also committed at the joint February 16, 1978 meeting to reach a nondetectable concentration level of trichloroethylene, as determined by appropriate State officials, to be tested at points on and off the Base designated by the State. Experts employed by the State of Michigan have determined that trichloroethylene is detectable in water at 1.0 parts per billion.

65. The Joint Order for Compliance ordered that:

"A. The Air Force shall immediately take all necessary steps to provide a safe, potable water supply to the residents, visitors and employees at Wurtsmith Air Force Base and to all private citizens with contaminated drinking water supplies. In order to guarantee a safe drinking water supply, the Air Force, shall, as a minimum, limit the amount of TCE to their sewage lagoons to a nondetectable level.

66. Sample data collected by the Air Force, the State and the United States Environmental Protection Agency consistently indicates that concentrations of trichloroethylene in water wells on and off Base intended for human use exceed 1.0 parts per billion.

67. The Michigan Department of Public Health, in a letter to the Wurtsmith Air Force Base, dated September 8, 1978, stated:

"Our department has gone on record opposing the use of any water containing more than a trace amount of TCE for drinking and cooking purposes. It appears the Air Force Base can meet this by using only those wells which show no detectable levels.

"The chemical analyses indicate the Air Force Base can continue using Well Nos. 2, 4, and 5 for the Base potable water supply system. Well Nos. 1, 3, and 19 should not be used as a potable water source. Well No. 18 shows a trace amount of TCE which is lower than the levels of TCE reported last fall. Although this well shows only a trace of TCE, past experience indicates that TCE levels may increase if the well is pumped on a regular basis.

"The wells that cannot be used for drinking and cooking purposes are a substantial portion of the base's entire water supply and without these wells available as a potable source, we are concerned about the Air Force Base's ability to meet the demands of their water system."

68. Recent sample data collected by State experts and the Air Force indicates that trichloroethylene has migrated off Base, and is now just yards short of Van Etten Lake. There is every reason to believe migration of trichloroethylene continues to occur. Without a far-reaching hydrogeologic investigation, the extent and direction of migration will remain unknown. It is certain, however, that residents and natural resources of the State have, and will continue to suffer adverse health and ecological impacts associated with trichloroethylene contamination.

69. Wurtsmith Air Force Base is bordered on the north and east by Van Etten Lake. Several private residences stand between the Base and Van Etten Lake. Just east of Van Etten Lake is Lake Huron. Attached as Exhibit D is a map of the Base and adjacent areas.

70. At least one private resident between the Base and Van Etten Lake has found their well water tap contaminated by trichloroethylene. A July 5, 1979 sample of the well collected and analyzed by the Air Force reveals concentrations of trichloroethylene in the water in excess of 700 parts per billion. This well is more than one (1) mile away from Building Number 43.

71. Defendant Air Force is likewise aware that concentrations of trichloroethylene have been found at the Base swimming beach (Building Number 1135 on Van Etten Lake) and North Cottage wells. These wells are on the perimeter of the Base. Sample data now indicates that each well contains in excess of 1.0 parts per billion trichloroethylene. These wells have been sealed and the taps labeled non-potable.

72. To the east of Wurtsmith Air Force Base is Van Etten Creek. Van Etten Lake empties into Van Etten Creek, and waters from the creek flow into Lake Huron.

73. On October 19, 1978, James O. McDonald, then Region V Enforcement Division Director, United States Environmental Protection Agency, stated:

"It is suspected that migration of TCE in the groundwater may endanger Van Etten Lake, Van Etten Creek and Lake Huron."

74. To the west of Wurtsmith Air Force Base is the Alpena State Forest. Directly south of Wurtsmith Air Force Base is the AuSable River. The AuSable River is an extremely popular Michigan stream, ranking in the State's top three as measured by user-days. The most popular recreational uses of the AuSable include fishing, canoeing, camping and hiking. Throughout its entire watershed it is noted nationwide for its superior angling habitat. Popular game species include trout, salmon and walleye. For nearly its entire length, the AuSable has been designated a partial body contact--coldwater fish stream. This designation is indicative of the highest quality surface waters in the State. The reach of the AuSable near Wurtsmith Air Force Base is included in this designation.

75. According to the February 12, 1979 affidavit of the former civilian Base water plant operator, Ronald Howard, contents of Base well numbers 1 and 3 were pumped into the Base sanitary sewage system in mid-December 1977. On or about December 16, 1977 a gasoline powered pump began pumping the contaminated water in these wells into the storm sewers connected to the AuSable River. The damage suffered by the AuSable remains unknown.

76. Given the close proximity of the Alpena State Forest and the AuSable River to the Wurtsmith Air Force Base, there is reason to suspect and fear that the ground and surface waters of these resources have been polluted, impaired and potentially destroyed by trichloroethylene contamination.

77. Defendant Air Force has failed to take any of the corrective actions required in the October 18, 1978 Joint Order for Compliance. Since October, 1978, the flow of contaminated groundwater and newly contaminated groundwaters has polluted, impaired and potentially destroyed the groundwaters of the federal facility at Wurtsmith Air Force Base, the State of Michigan and private residences. The continuing seepage of trichloroethylene from the spill locations and ineffective and improper corrective actions at the Wurtsmith Air Force Base poses an imminent threat to the surface waters of the State, in particular, Van Etten Lake, Van Etten Creek, Lake Huron and the AuSable River, and State Forest Lands. Trichloroethylene has polluted, impaired and destroyed wells supplying drinking water at the Air Force Base. Trichloroethylene now threatens to pollute, impair and destroy private drinking water supplies as well. As a result of Defendants allowing the pollution, impairment and destruction of waters and land of the State, the People of the State of Michigan have suffered, and are suffering, irreparable injury to the ground and surface water resources of the State and the aquatic life contained therein.

78. It is now nearly two (2) years after the Air Force finally disclosed trichloroethylene contamination. The most recent results of Base well samples collected and analyzed by the Air Force for trichloroethylene contamination demonstrates both the continuing menace of this hazardous toxic substance and the dereliction of the Air Force:

	July 5, 1979	July 9, 1979
Well #1	410 ppb	450 ppb
Well #3	3021 ppb	2774 ppb
Well #55	192 ppb	198 ppb
purge well composite	30.7 ppb	61.8 ppb
Well #57	2078 ppb	1964 ppb
aeration system #2	117 ppb	113 ppb
Well #2	3.9 ppb	3.4 ppb
drinking water treatment		
plant composite	14.1 ppb	15.0 ppb
sewage treatment plant		
effluent	12.1 ppb	33.4 ppb
lagoon #7	3.0 ppb	2.5 ppb
observation well #4	13.5 ppb	
well #22	14.8 ppb	17.1 ppb
landfill test well #1	ND	ND
landfill test well #2	ND	ND
dog kennel test well	ND	
private well Korracks	ND	
private well Pierce (Eleanor)	ND	
private well Pierce (Charles)	750 ppb	
private well Davey	ND	
Air Force Beach (Bldg 1135)	8.2 ppb	8.6 ppb
private well Hickey	ND	
YMCA Kitchen	ND	
YMCA House	ND	
Well #4	not sampled	1.7 ppb
Well #5	not sampled	ND
aeration system		
#1 effluent	not sampled	336 ppb
observation well #2	not sampled	9.8 ppb
observation well #3	not sampled	2.1 ppb
test well "B"	not sampled	Trace
test well "C"	not sampled	Trace
North cottage	not sampled	4.6 ppb
South cottage	not sampled	23.9 ppb

ND=not detected

blank - source was not sampled or analysis has not been completed

Frustrated by the passage of many months, meetings, an endless string of broken promises and inaction, the State brings this action to abate and correct the spread of trichloroethylene contamination in the State of Michigan.

COUNT I

Federal Water Pollution Control Act

79. Paragraphs 1-78 of this Complaint are incorporated by reference.

80. The State brings this case pursuant to the Federal Water Pollution Control Act, 33 USC §§1251-1376, PL 92-500.

81. By § 313 of the Federal Water Pollution Control Act, 33 USC §1323(a), the United States Congress expressly waives the sovereign immunity of federal agencies, officers, employees and facilities and directs their compliance with all applicable federal, state and local laws, orders and regulations:

"Each department, agency, or instrumentality of the executive, legislative, and judicial branches of the Federal Government (1) having jurisdiction over any property or facility, or (2) engaged in any activity resulting, or which may result, in the discharge of runoff of pollutants, and each officer, agent, or employee thereof in the performance of his official duties, shall be subject to, and comply with, all Federal, State, interstate, and local requirements, administrative authority, and process and sanctions respecting the control and abatement of water pollution in the same manner, and to the same extent as any nongovernmental entity.... This subsection shall apply notwithstanding any immunity of such agencies, officers, agents, or employees under any law or rule of law."

82. Section 313 of the Federal Water Pollution Control Act, 33 USC § 1323 (a), is virtually identical to § 118(a) of the Clean Air Act Amendments of 1977, 42 USC § 7418, PL 95-95, August 7, 1977, 91 Stat 712; and § 6001 of the Resource Conservation Recovery Act of 1976, 42 USC § 6961, PL 94-580, October 21, 1976, 90 Stat 2795. This striking similarity is not coincidental; rather it reflects a conscious and well reasoned congressional determination that federal, state and local environmental laws and regulations shall apply to federal facilities. President Carter, Commander in Chief of the nations' armed forces by the authority of Article II Section 2 of the United States Constitution, issued Executive Order 12088 on October 13, 1978. This Executive Order likewise directs all federal facilities to comply with applicable federal, state and local pollution control laws and standards.

83. Section 505 of the Federal Water Pollution Control Act, 33 USC §1365(a) provides for citizen suits, such as the present action:

"Except as provided in subsection (b) of this section, any citizen may commence a civil action on his own behalf --

(1) against any person (including (i) the United States, and (ii) any other governmental instrumentality or agency to the extent permitted by the eleventh amendment to the Constitution) who is alleged to be in violation of (A) an effluent standard or limitation under this Act [33 USCS §§1251-1376] or (B) an order issued by the Administrator or a State with respect to such a standard or limitation...."

84. Section 505 of the Federal Water Pollution Control Act, 33 USC §1365(g), further provides that:

"For the purposes of this section the term 'citizen' means a person or persons having an interest which is or may be adversely affected."

85. Section 505 of the Federal Water Pollution Control Act, 33 USC § 1365(b) (1) (A) provides:

"No action may be commenced--prior to sixty days after the plaintiff has given notice of the alleged violation...(iii) to any alleged violator of the standard, limitation, or order ..."

86. The State, along with the United States Environmental Protection Agency, issued to Defendant Air Force on October 18, 1978 Joint Findings and Notice of Violation and Order for Compliance.

87. Attached to Defendant Air Force's copy of the Joint Findings and Notice of Violation and Order for Compliance was the State's sixty day "Notice of Citizen Suit" required by §505 of the Federal Water Pollution Control Act, 33 USC §1365(b) (1) (A).

88. Defendant Air Force has not yet complied with the terms, conditions and requirements of the Joint State and United States Environmental Protection Agency Order, the Federal Water Pollution Control Act, 33 USC §§1251-1376, PL 92-500; Executive Order 12088; the State of Michigan

Water Resources Act, 1929 PA 245, MCLA 323.6, 323.6a, 323.7; MSA 3.526, 3.526a, 3.527; the Michigan Environmental Protection Act, 1970 PA 127, MCLA 691.1201 et seq, MSA 14.528(201) et seq; and the Solid Waste Management Act, 1978 PA 641, §§13 and 33, MCLA 299.413 and 299.433. The State brings this action against the United States, departments or instrumentalities of the executive branch of the federal government, and officials and employees thereof to force compliance with all applicable laws, regulations, standards and Orders.

89. Further, Defendant Air Force's contamination of the groundwaters beneath and adjacent to its facility with trichloroethylene, a dangerous chemical toxicant, and operation of an unlicensed, unapproved and unsupervised solid waste disposal area on its Base, has, is now and will continue to be injurious to the public health, safety and welfare; has, is now and will continue to be injurious to the domestic, commercial, industrial, agricultural, recreational or other uses which are being or may be made of nearby groundwaters and the connecting surface waters of Van Etten Lake, Van Etten Creek, Lake Huron, and the AuSable River; and has, is now and will continue to be injurious to the fish, aquatic life and plants in these waters, and the livestock and wild animals consuming those waters.

WHEREFORE, Plaintiff Frank J. Kelley requests this Honorable Court to provide the following relief:

A. Issue a preliminary and a permanent injunction which would, as a minimum, order Defendants to forthwith install and thereafter continuously operate a groundwater purge well and treatment system designed to intercept, collect, remove and treat any and all groundwater containing trichloroethylene which is, or may be, flowing from its facility into or under Van Etten Lake, Van Etten Creek, Lake Huron, the AuSable River, private property or State Forest Lands; and order Defendants to institute a pollution incident prevention plan approved by the State.

B. Issue an Order to Defendants directing that the purged groundwater be treated with activated carbon filters, such system to be forthwith designed, installed and thereafter continuously operated, so that the groundwater after treatment shall contain less than 1.0 parts per billion trichloroethylene.

C. Issue an Order directing Defendants to provide a substitute potable water supply for all domestic purposes if and when any public or private, residential or municipal well is found to be unfit for domestic purposes, as determined by the Michigan Department of Public Health or a local health department;

D. Issue a preliminary injunction ordering Defendants to complete a hydrogeological investigation which would define the (1) areal and vertical extent of trichloroethylene

contaminated groundwater, the source of such contamination, the direction and rate of movement of this contaminated groundwater; and (2) the vertical and areal size of the disposal area near Skeel Road and the concentration of the following contaminants within the dump area and in the soil and groundwater beneath and within this area: trichloroethylene, heavy metals, chlorinated hydrocarbons, oil and grease, radioactive material, chemical oxygen demand, biochemical oxygen demand and bacteriological quality;

E. Issue an Order directing Defendants to dispose of trichloroethylene contaminated soils currently stored on Base at a location approved by the State of Michigan.

F. Issue an Order directing Defendants to forthwith thoroughly search their own records, interview past and present Base personnel, and otherwise make a diligent effort to ascertain and report to the State the following:

(i) Any and all locations on the Base where solid and/or liquid waste materials were disposed, including the existing Base dump near Skeel Road, or accidentally released onto or into the ground.

(ii) Identify by location the type and quantity of waste and the date of disposal or accidental release.

G. Order Defendants to pay damages in whatever amount Plaintiff is found entitled to compensate the People and the State of Michigan for Defendants' pollution, impairment or destruction of ground and surface waters, and quality of life, as well as to provide an incentive to the nearly one thousand five hundred (1500) federal facilities located throughout the State of Michigan to comply with applicable federal and state laws, regulations and orders, and Executive Order 12088.

H. Award the State all costs of this action, including the costs of salaries paid state employees for the investigation and enforcement of this litigation; and

I. Any other relief as the Court deems proper and just.

COUNT II

Water Resources Commission Act

90. Paragraphs 1-89 of this Complaint are incorporated by reference.

91. The State brings this action pursuant to the Water Resources Commission Act, 1929 PA 245, §6(c); MCLA 323.6(c); MSA 3.526(c), which provides:

"A violation of a provision of this section shall be prima facie evidence of the existence of a public nuisance and in addition to the remedies provided for in this act may be abated according to law in an action brought by the attorney general in a court of competent jurisdiction."

92. The Water Resources Commission Act, 1929 PA 245, §6(a); MCLA 323.6(a); MSA 3.526(a) provides:

"It shall be unlawful for any persons directly or indirectly to discharge into the waters of the state any substance which is or may become injurious to the public health, safety or welfare; or which is or may become injurious to domestic, commercial, industrial, agricultural, recreational, or other uses which are being or may be made of such waters; or which is or may become injurious to the value or utility of riparian lands; or which is or may become injurious to livestock, wild animals, birds, fish, aquatic life, or plants or the growth or the propagation thereof be prevented or injuriously affected; or whereby the value of fish and game is or may be destroyed or impaired." (Emphasis supplied)

93. Defendant Air Force's direct or indirect discharge of trichloroethylene, a toxic chemical, has contaminated the groundwaters beneath and adjacent to its facility, has, is now and will continue to be injurious to the public health, safety and welfare; has, is now and will continue to be injurious to the domestic, commercial, industrial, agricultural, recreational or other uses which are being or may be made of nearby groundwaters and the connecting surface waters of Van Etten Lake, Van Etten Creek, Lake Huron, and the AuSable River; and has, is now and will continue to be injurious to the fish, aquatic life and plants in these waters, and the livestock and wild animals consuming those waters.

WHEREFORE, Plaintiff Frank J. Kelley requests this Honorable Court to provide the following relief:

A. Issue a preliminary and a permanent injunction which would, as a minimum, order Defendants to forthwith install and thereafter continuously operate a groundwater purge well and treatment system designed to intercept, collect, remove and treat any and all groundwater containing trichloroethylene which is, or may be, flowing from its facility into or under Van Etten Lake, Van Etten Creek, Lake Huron, the AuSable River, private property or State Forest Lands; and order Defendants to institute a pollution incident prevention plan approved by the State.

B. Issue an Order to Defendants directing that the purged groundwater be treated with activated carbon filters,

such system to be forthwith designed, installed and thereafter continuously operated, so that the groundwater after treatment shall contain less than 1.0 parts per billion trichloroethylene.

C. Issue an Order directing Defendants to provide a substitute potable water supply for all domestic purposes if and when any public or private, residential or municipal well is found to be unfit for domestic purposes, as determined by the Michigan Department of Public Health or a local health department;

D. Issue a preliminary injunction ordering Defendants to complete a hydrogeological investigation which would define the (1) areal and vertical extent of trichloroethylene contaminated groundwater, the source of such contamination, the direction and rate of movement of this contaminated groundwater; and (2) the vertical and areal size of the disposal area near Skeel Road and the concentration of the following contaminants within the dump area and in the soil and groundwater beneath and within this area: trichloroethylene, heavy metals (including but not limited to copper, nickel, chrome, mercury, cadmium, selenium, zinc, lead, plutonium), chlorinated hydrocarbons, oil and grease, radioactive material, chemical oxygen demand, biochemical oxygen demand and bacteriological quality;

E. Issue an Order directing Defendants to dispose of trichloroethylene contaminated soils currently stored on Base at a location approved by the State of Michigan.

F. Issue an Order directing Defendants to forthwith thoroughly search their own records, interview past and present Base personnel, and otherwise make a diligent effort to ascertain and report to the State the following:

(i) Any and all locations on the Base where solid and/or liquid waste materials were disposed, including the existing Base dump near Skeel Road, or accidentally released onto or into the ground.

(ii) Identify by location the type and quantity of waste and the date of disposal or accidental release.

G. Impose a civil penalty upon Defendants of ten thousand dollars (\$10,000) for each day of violation of this provision of the Water Resources Commission Act;

H. Order Defendants to pay the damages in whatever amount Plaintiff is found entitled to compensate the People and the State of Michigan for Defendants' pollution, impairment or destruction of ground and surface waters, and quality of life, as well as to provide an incentive to the nearly one thousand five hundred (1500) federal facilities located throughout the State of Michigan to comply with applicable federal and state laws, regulations and orders, and Executive Order 12088.

I. Award the State all costs of this action, including the costs of salaries paid State employees for the investigation and enforcement of this litigation; and

J. Any other relief as the Court deems proper and just.

COUNT III

Water Resources Commission Act

94. Paragraphs 1-93 of this Complaint are incorporated by reference.

95. Plaintiff brings this case pursuant to the Water Resources Commission Act, 1929 PA 245; § 6a; MCLA 323.6a; MSA 3.526a, which provides:

"Every industrial or commercial entity which discharges liquid wastes into any surface or ground waters or underground or on the ground other than through a public sanitary sewer shall have waste treatment or control facilities under the specific supervision and control of persons who have been certified by the commission as properly qualified to operate the facilities."
(Emphasis supplied)

96. Defendant Air Force planted at least two (2) three thousand (3000) gallon jet refueling truck tanks filled with liquid wastes, including the toxic hazardous substance, trichloroethylene, on Base in a landfill near Skeel Road. This waste disposal area is unapproved, unlicensed and not under the specific supervision and control of State officials, as is required. Leaks in the buried truck tanks have further contaminated the groundwaters beneath and adjacent to the Air Force facility with trichloroethylene. Presence of this chemical toxicant has, is now and will continue to be injurious to the domestic, commercial, industrial, agricultural, recreational or other uses which are being or may be made of nearby groundwaters and the connecting surface waters of Van Etten Lake, Van Etten Creek, Lake Huron, and the AuSable River; and has, is now and will continue to be injurious to the fish, aquatic life

and plants in these waters, and the livestock and wild animals consuming those waters.

WHEREFORE, Plaintiff Frank J. Kelley requests this Honorable Court to provide the following relief:

A. Issue a preliminary and a permanent injunction which would, as a minimum, order Defendants to forthwith install and thereafter continuously operate a groundwater purge well and treatment system designed to intercept, collect, remove and treat any and all groundwater containing trichloroethylene which is, or may be, flowing from its facility into or under Van Etten Lake, Van Etten Creek, Lake Huron, the AuSable River, private property or State Forest Lands; and order Defendants to institute a pollution incident prevent plan approved by the State.

B. Issue an Order to Defendants directing that the purged groundwater be treated with activated carbon filters, such system to be forthwith designed, installed and thereafter continuously operated, so that the groundwater after treatment shall contain less than 1.0 parts per billion trichloroethylene.

C. Issue an Order directing Defendants to provide a substitute potable water supply for all domestic purposes if and when any public or private, residential or municipal well is found to be unfit for domestic purposes, as determined by the Michigan Department of Public Health or a local health department;

D. Issue a preliminary injunction ordering Defendants to complete a hydrogeological investigation which would

define the (1) areal and vertical extent of trichloroethylene contaminated groundwater, the source of such contamination, the direction and rate of movement of this contaminated groundwater; and (2) the vertical and areal size of the disposal area near Skeel Road and the concentration of the following contaminants within the dump area and in the soil and groundwater beneath and within this area: trichloroethylene, heavy metals (including but not limited to copper, nickel, chrome, mercury, cadmium, selenium, zinc, lead, plutonium), chlorinated hydrocarbons, oil and grease, radioactive material, chemical oxygen demand, biochemical oxygen demand and bacteriological quality;

E. Issue an Order directing Defendants to dispose of trichloroethylene contaminated soils currently stored on Base at a location approved by the State of Michigan.

F. Issue an Order directing Defendants to forthwith thoroughly search their own records, interview past and present Base personnel, and otherwise make a diligent effort to ascertain and report to the State the following:

(i) Any and all locations on the Base where solid and/or liquid waste materials were disposed, including the existing Base dump near Skeel Road, or accidentally released onto or into the ground.

(ii) Identify by location the type and quantity of waste and the date of disposal or accidental release.

G. Impose a civil penalty upon Defendants of ten thousand dollars (\$10,000) for each day of violation of this provision of the Water Resources Commission Act;

H. Order Defendants to pay the damages in whatever amount Plaintiff is found entitled to compensate the People and the State of Michigan for Defendants' pollution, impairment or destruction of ground and surface waters, and quality of life, as well as to provide an incentive to the nearly one thousand five hundred (1500) federal facilities located throughout the State of Michigan to comply with applicable federal and state laws, regulations and orders, and Executive Order 12088.

I. Award the State all costs of this action, including the costs of salaries paid state employees for the investigation and enforcement of this litigation; and

J. Any other relief as the Court deems proper and just.

COUNT IV

Water Resources Commission Act

97. Paragraphs 1-96 of this Complaint are incorporated by reference.

98. Plaintiff brings this case pursuant to the Water Resources Commission Act, 1929 PA 245, §7; MCLA 323.7; MSA 3.527, which provides:

"After April 15, 1973, a person shall not discharge any waste or waste effluent into the waters of this state unless he is in possession of a valid permit therefor from the commission."
(Emphasis supplied)

99. The Water Resources Commission Act, 1929 PA 245, § 11, as amended, defines "waters of the state" as:

"...groundwaters, lakes, rivers and streams and all other water courses and waters within the confines of the state and also the Great Lakes bordering thereon."

100. Defendant Air Force has, without valid permit, discharged trichloroethylene into groundwaters near Building No. 43 and the landfill near Skeel Road on the Wurtsmith Air Force Base facility. This discharge has contaminated public drinking wells on Base, private drinking wells off Base, and is now and will continue to be injurious to the public health, safety and welfare; has, is now and will continue to be injurious to the domestic, commercial, industrial, agricultural, recreational or other uses which are being or may be made of nearby groundwaters and the connecting surface waters of Van Etten Lake, Van Etten

Creek, Lake Huron, and the AuSable River; and has, is now and will continue to be injurious to the fish, aquatic life and plants in these waters, and the livestock and wild animals consuming those waters.

WHEREFORE, Plaintiff Frank J. Kelley requests this Honorable Court to provide the following relief:

A. Issue a preliminary and a permanent injunction which would, as a minimum, order Defendants to forthwith install and thereafter continuously operate a groundwater purge well and treatment system designed to intercept, collect, remove and treat any and all groundwater containing trichloroethylene which is, or may be, flowing from its facility into or under Van Etten Lake, Van Etten Creek, Lake Huron, the AuSable River, private property or State Forest Lands; and order Defendants to institute a pollution incident prevention plan approved by the State.

B. Issue an Order to Defendants directing that the purged groundwater be treated with activated carbon filters, such system to be forthwith designed, installed and thereafter continuously operated, so that the groundwater after treatment shall contain less than 1.0 parts per billion trichloroethylene.

C. Issue an Order directing Defendants to provide a substitute potable water supply for all domestic purposes if and when any public or private, residential or municipal well is found to be unfit for domestic purposes, as determined by the Michigan Department of Public Health or a local health department;

D. Issue a preliminary injunction ordering Defendants to complete a hydrogeological investigation which would define the (1) areal and vertical extent of trichloroethylene contaminated groundwater, the source of such contamination, the direction and rate of movement of this contaminated groundwater; and (2) the vertical and areal size of the disposal area near Skeel Road and the concentration of the following contaminants within the dump area and in the soil and groundwater beneath and within this area: trichloroethylene, heavy metals (including but not limited to copper, nickel, chrome, mercury, cadmium, selenium, zinc, lead, plutonium), chlorinated hydrocarbons, oil and grease, radioactive material, chemical oxygen demand, biochemical oxygen demand and bacteriological quality;

E. Issue an Order directing Defendants to dispose of trichloroethylene contaminated soils currently stored on Base at a location approved by the State of Michigan.

F. Issue an Order directing Defendants to forthwith thoroughly search their own records, interview past and present Base personnel, and otherwise make a diligent effort to ascertain and report to the State the following:

(i) Any and all locations on the Base where solid and/or liquid waste materials were disposed, including the existing Base dump near Skeel Road, or accidentally released onto or into the ground.

(ii) Identify by location the type and quantity of waste and the date of disposal or accidental release.

G. Impose a civil penalty upon Defendants of ten thousand dollars (\$10,000) for each day of violation of this provision of the Water Resources Commission Act;

H. Order Defendants to pay the damages in whatever amount Plaintiff is found entitled to compensate the People and the State of Michigan for Defendants' pollution, impairment or destruction of ground and surface waters, and quality of life, as well as to provide an incentive to the nearly one thousand five hundred (1500) federal facilities located throughout the State of Michigan to comply with applicable federal and state laws, regulations and orders, and Executive Order 12088.

I. Award the State all costs of this action, including the costs of salaries paid state employees for the investigation and enforcement of this litigation; and

J. Any other relief as the Court deems proper and just.

COUNT V

Michigan Environmental Protection Act of 1970

101. Paragraphs 1-100 of this Complaint are incorporated by reference.

102. In Const 1963, art 4, §51, the people have commanded:

"The public health and general welfare of the people of the state are hereby declared to be matters of primary public concern. The legislature shall pass suitable laws for the protection and promotion of the public health."

103. In Const 1963, art 4, §52, the people have further commanded:

"The conservation and development of the natural resources of the state are hereby declared to be of paramount public concern in the interests of the health, safety and general welfare of the people. The legislature shall provide for the protection of the air, water and other natural resources of the state from pollution, impairment, and destruction."

104. In response to that charge, the legislature enacted the Thomas J. Anderson, Gordon Rockwell Environmental Protection Act, 1970 PA 127; MCLA 691.1201 et seq; MSA 14.528(201) et seq, "for the protection of the air, water and other natural resources and the public trust."

105. The State brings this action pursuant to the Environmental Protection Act, 1970 PA 127, §2(1); MCLA 691.1202(1); MSA 14.528(202)(1), which provides:

"The Attorney General, any political subdivision of the state, any instrumentality or agency of the state or of a political subdivision thereof, any person...may maintain an action in the circuit court having jurisdiction where the alleged violation occurred or is likely to occur for declaratory and equitable relief against...any person, partnership, corporation, association, organization or other legal entity for the protection of the air, water and other natural resources and the public trust therein from pollution, impairment or destruction."

106. Section 4(1) of the Environmental Protection Act, 1970 PA 127, MCLA 691.1204(1), MSA 14.528 (204) (1) provides:

"The court may grant temporary and permanent equitable relief, or may impose conditions on the defendant that are required to protect the air, water and other natural resources or the public trust therein from pollution, impairment or destruction."

107. In interpreting and applying the Environmental Protection Act of 1970, 1970 PA 127, MCLA 691.1201 et seq., MSA 14.528 (201) et seq., the Michigan Supreme Court has emphasized Defendants' duty to the people of Michigan:

"But the [Michigan] EPA does more than give standing to the public and grant equitable powers to the circuit courts, it also imposes a duty on individuals and organizations both in the public and private sectors to prevent or minimize degradation of the environment..."
Ray v Mason County Drain Commissioner,
393 Mich 294, 306; 224 NW2d 883, 888 (1975).

108. Defendant Air Force's contamination of the groundwaters beneath and adjacent to its facility with trichloroethylene, a dangerous chemical toxicant, has, is now and will continue to be injurious to the public health, safety and welfare; has, is now and will continue to be injurious to the domestic, commercial, industrial, agricultural, recreational or other uses which are being or may be made of nearby groundwaters and the connecting surface waters of Van Etten Lake, Van Etten Creek, Lake Huron, and the AuSable River; and has, is now and will continue to be injurious to the fish, aquatic life and plants in these waters, and the livestock and wild animals consuming those waters. Further, Defendant's operation of an unlicensed, unapproved, unsupervised waste disposal area near Skeel Road on its Base has, is now and will continue to pollute, impair and destroy the natural resources of this State and threatens the health, safety and general welfare of the people.

WHEREFORE, Plaintiff Frank J. Kelley requests this Honorable Court to provide the following relief:

A. Issue a preliminary and a permanent injunction which would, as a minimum, order Defendants to forthwith install and thereafter continuously operate a groundwater purge well and treatment system designed to intercept, collect, remove and treat any and all groundwater containing trichloroethylene which is, or may be, flowing from its facility into or under Van Etten Lake, Van Etten Creek, Lake Huron, the AuSable River, private property or State Forest Lands; and order Defendants to institute a pollution incident prevention plan approved by the State.

B. Issue an Order to Defendants directing that the purged groundwater be treated with activated carbon filters,

such system to be forthwith designed, installed and thereafter continuously operated, so that the groundwater after treatment shall contain less than 1.0 parts per billion trichloroethylene.

C. Issue an Order directing Defendants to provide a substitute potable water supply for all domestic purposes if and when any public or private, residential or municipal well is found to be unfit for domestic purposes, as determined by the Michigan Department of Public Health or a local health department;

D. Issue a preliminary injunction ordering Defendants to complete a hydrogeological investigation which would define the (1) areal and vertical extent of trichloroethylene contaminated groundwater, the source of such contamination, the direction and rate of movement of this contaminated groundwater; and (2) the vertical and areal size of the disposal area near Skeel Road and the concentration of the following contaminants within the dump area and in the soil and groundwater beneath and within this area: trichloroethylene, heavy metals (including but not limited to copper, nickel, chrome, mercury, cadmium, selenium, zinc, lead, plutonium), chlorinated hydrocarbons, oil and grease, radioactive material, chemical oxygen demand, biochemical oxygen demand and bacteriological quality;

E. Issue an Order directing Defendants to dispose of trichloroethylene contaminated soils currently stored on Base at a location approved by the State of Michigan.

F. Issue an Order directing Defendants to forthwith thoroughly search their own records, interview past and present Base personnel, and otherwise make a diligent effort to ascertain and report to the State the following:

(i) Any and all locations on the Base where solid and/or liquid waste materials were disposed, including the existing Base dump near Skeel Road, or accidentally released onto or into the ground.

(ii) Identify by location the type and quantity of waste and the date of disposal or accidental release.

G. Order Defendants to pay damages in whatever amount Plaintiff is found entitled to compensate the People and the State of Michigan for Defendants' pollution, impairment or destruction of ground and surface waters, and quality of life, as well as to provide an incentive to the nearly one thousand five hundred (1500) federal facilities located throughout the State of Michigan to comply with applicable federal and state laws, regulations and orders, and Executive Order 12088.

H. Award the State all costs of this action, including the costs of salaries paid state employees for the investigation and enforcement of this litigation; and

I. Any other relief as the Court deems proper and just.

COUNT VI

Solid Waste Management Act

109. Paragraphs 1-108 of this Complaint are incorporated by reference.

110. The State brings this action pursuant to the Solid Waste Management Act, 1978 PA 641, §33; MCLA 299.433, which provides:

"In addition to any other remedy available at law, the director or a health officer may request that the attorney general bring an action in the name of the people of the state, or a municipality may bring an action in its own name within its municipal boundaries, for an injunction or other process against a person, county, municipality, or an agency of a person, or county, or municipality to restrain or prevent the establishment, management, maintenance, or operation of a solid waste disposal area, solid waste facility, solid waste processing plant, or a solid waste hauling business without a license, or a solid waste transporting unit without a seal or for any other violation of this act."

111. The Solid Waste Management Act, 1978 PA 641, §13(1); MCLA 299.413(1), provides:

"A person, county, municipality, or an agency of a person, county, or municipality shall not conduct, manage, maintain, or operate a disposal area within this state without a license from the director. A person, county, municipality, or an agency of a person, county, or municipality that operates a disposal area shall make a license application to the director through a certified health department on a form provided by the director. If the disposal area is located in a county or city that does

not have a certified health department,
the application shall be made directly
to the director."

Defendant Air Force's operation of a solid waste disposal area located near Skeel Road on its Wurtsmith Air Force Base facility violates the application and licensing requirements of §13 of the Solid Waste Management Act, 1978 PA 641; MCLA 299.413.

WHEREFORE, Plaintiff Frank J. Kelley requests this Honorable Court to provide the following relief:

A. Issue a preliminary and a permanent injunction which would, as a minimum, order Defendants to forthwith install and thereafter continuously operate a groundwater purge well and treatment system designed to intercept, collect, remove and treat any and all groundwater containing trichloroethylene which is, or may be, flowing from its facility into or under Van Etten Lake, Van Etten Creek, Lake Huron, the AuSable River, private property or State Forest Lands; and order Defendants to institute a pollution incident prevention plan approved by the State.

B. Issue an Order to Defendants directing that the purged groundwater be treated with activated carbon filters, such system to be forthwith designed, installed and thereafter continuously operated, so that the groundwater after treatment shall contain less than 1.0 parts per billion trichloroethylene.

C. Issue an Order directing Defendants to provide a substitute potable water supply for all domestic purposes if and when any public or private, residential or municipal well is found to be unfit for domestic purposes, as determined by the Michigan Department of Public Health or a local health department;

D. Issue a preliminary injunction ordering Defendants to complete a hydrogeological investigation which would define the (1) areal and vertical extent of trichloroethylene contaminated groundwater, the source of such contamination, the direction and rate of movement of this contaminated groundwater; and (2) the vertical and areal size of the disposal area near Skeel Road and the concentration of the following contaminants within the dump area and in the soil and groundwater beneath and within this area: trichloroethylene, heavy metals (including but not limited to copper, nickel, chrome, mercury, cadmium, selenium, zinc, lead, plutonium), chlorinated hydrocarbons, oil and grease, radioactive material, chemical oxygen demand, biochemical oxygen demand and bacteriological quality;

E. Issue an Order directing Defendants to dispose of trichloroethylene contaminated soils currently stored on Base at a location approved by the State of Michigan.

F. Issue an Order directing Defendants to forthwith thoroughly search their own records, interview past and present Base personnel, and otherwise make a diligent effort to ascertain and report to the State the following:

(i) Any and all locations on the Base where solid and/or liquid waste materials were disposed, including the existing Base dump near Skeel Road, or accidentally released onto or into the ground.

(ii) Identify by location the type and quantity of waste and the date of disposal or accidental release.

G. Order Defendants to pay the damages in whatever amount Plaintiff is found entitled to compensate the People and the State of Michigan for Defendants' pollution, impairment or destruction of ground and surface waters, and quality of life, as well as to provide an incentive to the nearly one thousand five hundred (1500) federal facilities located throughout the State of Michigan to comply with applicable federal and state laws, regulations and orders, and Executive Order 12088.

H. Award the State all costs of this action, including the costs of salaries paid state employees for the investigation and enforcement of this litigation; and

I. Any other relief as the Court deems proper and just.

COUNT VII

Statutory and Common Law Nuisance

112. Paragraphs 1-111 of this Complaint are incorporated by reference.

113. An unlawful activity is a public nuisance. Plaintiff Frank J. Kelley makes this claim pursuant to his authority to abate a public nuisance.

114. The Federal Water Pollution Control Act, PL 92-500, 33 USCA §1251 et seq., §313, waives federal sovereign immunity and provides that federal facilities and all federal agencies "be subject to, and comply with, all federal, state, interstate and local requirements, and process and sanctions respecting the control and abatement of water pollution in the same manner, and to the same extent as a non-governmental entity...."

115. The State, in conjunction with the Administrator of the United States Environmental Protection Agency, issued on October 18, 1978, Joint Findings and Notice of Violation and Order for Compliance.

116. Defendants have violated and continue to violate the terms and conditions of the Order for Compliance and the laws of this nation and state. These violations contravene the Federal Water Pollution Control Act, supra; Executive Order 12088, supra; the State of Michigan Water Resources Commission Act, supra; the Michigan Environmental Protection Act, supra; and the Solid Waste Management Act, supra.

117. The Water Resources Act, 1929 PA 245, §6(a);
MCLA 323.6(a); MSA 3.526(a) provides:

"It shall be unlawful for any persons directly or indirectly to discharge into the waters of the state any substance which is or may become injurious to the public health, safety or welfare; or which is or may become injurious to domestic, commercial, industrial, agricultural, recreational, or other uses which are being or may be made of such waters; or which is or may become injurious to the value or utility of riparian lands; or which is or may become injurious to livestock, wild animals, birds, fish, aquatic life, or plants or the growth or the propagation thereof be prevented or injuriously affected; or whereby the value of fish and game is or may be destroyed or impaired."

118. The State brings this action pursuant to the
Water Resources Commission Act, 1929 PA 245, §6(c); MCLA
323.6(c); MSA 3.526(c), which provides:

"A violation of a provision of this section shall be prima facie evidence of the existence of a public nuisance and in addition to the remedies provided for in this act may be abated according to law in an action brought by the attorney general in a court of competent jurisdiction."

119. As a result of Defendants' violation of the
law and the terms and conditions of the Order for Compliance,
the groundwaters beneath and near the Wurtsmith Air Force
Base facility are contaminated with trichloroethylene,
which has in the past, is now and will continue to pollute,
impair and destroy the groundwaters and surface waters of
this State.

120. Even without regard to specific violations of statutory law, Defendants' trichloroethylene contamination of soils and groundwaters flowing beneath and adjacent to the Wurtsmith Air Force Base, and the operation of an unapproved, unlicensed waste disposal area on its facility constitutes a public nuisance which injures and continues to threaten the natural resources and the health, safety and welfare of the people of this State.

WHEREFORE, Plaintiff Frank J. Kelley requests this Honorable Court to provide the following relief:

A. Issue a preliminary and a permanent injunction which would, as a minimum, order Defendants to forthwith install and thereafter continuously operate a groundwater purge well and treatment system designed to intercept, collect, remove and treat any and all groundwater containing trichloroethylene which is, or may be, flowing from its facility into or under Van Etten Lake, Van Etten Creek, Lake Huron, the AuSable River, private property or State Forest Lands; and order Defendants to institute a pollution incident prevention plan approved by the State.

B. Issue an Order to Defendants directing that the purged groundwater be treated with activated carbon filters, such system to be forthwith designed, installed and thereafter continuously operated, so that the groundwater after treatment shall contain less than 1.0 parts per billion trichloroethylene.

C. Issue an Order directing Defendants to provide a substitute potable water supply for all domestic purposes

if and when any public or private, residential or municipal well is found to be unfit for domestic purposes, as determined by the Michigan Department of Public Health or a local health department;

D. Issue a preliminary injunction ordering Defendants to complete a hydrogeological investigation which would define the (1) areal and vertical extent of trichloroethylene contaminated groundwater, the source of such contamination, the direction and rate of movement of this contaminated groundwater; and (2) the vertical and areal size of the disposal area near Skeel Road and the concentration of the following contaminants within the dump area and in the soil and groundwater beneath and within this area: trichloroethylene, heavy metals (including but not limited to copper, nickel, chrome, mercury, cadmium, selenium, zinc, lead, plutonium), chlorinated hydrocarbons, oil and grease, radioactive material, chemical oxygen demand, biochemical oxygen demand and bacteriological quality;

E. Issue an Order directing Defendants to dispose of trichloroethylene contaminated soils currently stored on Base at a location approved by the State of Michigan.

F. Issue an Order directing Defendants to forthwith thoroughly search their own records, interview past and present Base personnel, and otherwise make a diligent effort to ascertain and report to the State the following:

(i) Any and all locations on the Base where solid and/or liquid waste materials were disposed, including the existing Base dump near Skeel Road, or accidentally released

onto or into the ground.

(ii) Identify by location the type and quantity of waste and the date of disposal or accidental release.

G. Order Defendants to pay damages in whatever amount Plaintiff is found entitled to compensate the People and the State of Michigan for Defendants' pollution, impairment or destruction of ground and surface waters, and quality of life, as well as to provide an incentive to the nearly one thousand five hundred (1500) federal facilities located throughout the State of Michigan to comply with applicable federal and state laws, regulations and orders and Executive Order 12088.

H. Award the State all costs of this action, including the costs of salaries paid state employees for the investigation and enforcement of this litigation; and

I. Any other relief as the Court deems proper and just.

COUNT VIII

Public Trust

121. Paragraphs 1-120 of this Complaint are incorporated by reference.

122. In Const 1963, art 4, §52, the people have commanded:

"The conservation and development of the natural resources of the state are hereby declared to be of paramount public concern in the interests of the health, safety and general welfare of the people. The legislature shall provide for the protection of the air, water and other natural resources of the state from pollution, impairment and destruction."

123. The State brings this action pursuant to the Environmental Protection Act, 1970 PA 127, §2(1); MCLA 691.1202(1); MSA 14.528(202)(1), which provides:

"The Attorney General, any political subdivision of the state, any instrumentality or agency of the state or of a political subdivision thereof, any person...may maintain an action in the circuit court having jurisdiction where the alleged violation occurred or is likely to occur for declaratory and equitable relief against...any person, partnership, corporation, association, organization or other legal entity for the protection of the air, water and other natural resources and the public trust therein from pollution, impairment or destruction."
(Emphasis supplied)

124. The groundwaters of the State are a natural resource within the public trust.

125. The waters of Van Etten Lake, Van Etten Creek, Lake Huron and the AuSable River, the land underlying these waters, and the fish and aquatic organisms contained therein, are within the public trust.

126. The Alpena State Forest is a natural resource within the public trust.

127. Plaintiff Frank J. Kelley, Attorney General for the people and State of Michigan, has not only the right but also the affirmative governmental responsibility to ensure that the rights of the public are protected and to seek compensation for any diminution in the public trust corpus.

128. The Air Force's conduct, as alleged above, constitutes a direct, persistent, and continuing impairment of the public trust.

WHEREFORE, Plaintiff Frank J. Kelley requests this Honorable Court to provide the following relief:

A. Issue a preliminary and a permanent injunction which would, as a minimum, order Defendants to forthwith install and thereafter continuously operate a groundwater purge well and treatment system designed to intercept, collect, remove and treat any and all groundwater containing trichloroethylene which is, or may be, flowing from its facility into or under Van Etten Lake, Van Etten Creek, Lake Huron, the AuSable River, private property or State Forest Lands; and order Defendants to institute a pollution incident prevention plan approved by the State.

B. Issue an Order to Defendants directing that the purged groundwater be treated with activated carbon filters, such system to be forthwith designed, installed and thereafter continuously operated, so that the groundwater after treatment shall contain less than 1.0 parts per billion trichloroethylene.

C. Issue an Order directing Defendants to provide a substitute potable water supply for all domestic purposes if and when any public or private, residential or municipal well is found to be unfit for domestic purposes, as determined by the Michigan Department of Public Health or a local health department;

D. Issue a preliminary injunction ordering Defendants to complete a hydrogeological investigation which would define the (1) areal and vertical extent of trichloroethylene contaminated groundwater, the source of such contamination, the direction and rate of movement of this contaminated groundwater; and (2) the vertical and areal size of the disposal area near Skeel Road and the concentration of the following contaminants within the dump area and in the soil and groundwater beneath and within this area: trichloroethylene, heavy metals (including but not limited to copper, nickel, chrome, mercury, cadmium, selenium, zinc, lead, plutonium), chlorinated hydrocarbons, oil and grease, radioactive material, chemical oxygen demand, biochemical oxygen demand and bacteriological quality;

E. Issue an Order directing Defendants to dispose of trichloroethylene contaminated soils currently stored on Base at a location approved by the State of Michigan.

F. Issue an Order directing Defendants to forthwith thoroughly search their own records, interview past and present Base personnel, and otherwise make a diligent effort to ascertain and report to the State the following:

(i) Any and all locations on the Base where solid and/or liquid waste materials were disposed, including the existing Base dump near Skeel Road, or accidentally released onto or into the ground.

(ii) Identify by location the type and quantity of waste and the date of disposal or accidental release.

G. Order Defendants to pay damages in whatever amount Plaintiff is found entitled to compensate the People and the State of Michigan for Defendants' pollution, impairment or destruction of ground and surface waters, and quality of life, as well as to provide an incentive to the nearly one thousand five hundred (1500) federal facilities located throughout the State of Michigan to comply with applicable federal and state laws, regulations and orders, and Executive Order 12088.

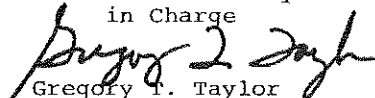
H. Award the State all costs of this action, including the costs of salaries paid state employees for the investigation and enforcement of this litigation; and

I. Any other relief as the Court deems proper and just.

Respectfully submitted,

FRANK J. KELLEY*
Attorney General

Stewart H. Freeman
Assistant Attorney General
in Charge


Gregory T. Taylor
Assistant Attorney General

Thomas J. Emery
Assistant Attorney General

Thomas F. Schimpf
Assistant Attorney General

Roger A. Schwartz
Assistant Attorney General

Environmental Protection Division
720 Law Building
Lansing, Michigan 48913
(517) 373-7780

Dated: August 29, 1979

*The Attorney General gratefully acknowledges the capable assistance of Gary Saretsky, a second year Law Student from the Wayne State University Law School in the preparation of this Complaint.

IN THE MATTER OF THE GIVING OF NOTICE
BY THE STATE OF MICHIGAN THAT A CIVIL
ACTION WILL BE COMMENCED TO REQUIRE
ABATEMENT OF UNLAWFUL WATER POLLUTION
AT WURTSMITH AIR FORCE BASE, MICHIGAN.

NOTICE OF CITIZEN SUIT

The STATE OF MICHIGAN, by Frank J. Kelley, Attorney General, hereby gives notice, pursuant to Section 505 of the Federal Water Pollution Control Act, being PL 92-500, as amended, 33 USC § 1251 et seq, and applicable Environmental Protection Agency Regulations, 40 CFR 135, 38 FR 15040, of its intent to file a civil action against the U.S. Department of Defense, the U. S. Environmental Protection Agency, and appropriate officials of both such agencies.

Such action will be commenced in the United States District Court.

As is set forth in greater detail in the "Joint Findings and Notice of Violation and Order for Compliance" accompanying this Notice, the purpose of this action is to abate an imminent threat to the surface and groundwaters of the State of Michigan. The Department of the Air Force failed to abate this matter after receipt of the attached Notice. Thereafter, the Environmental Protection Agency failed and refused to enforce its own order.

By Section 313 of the Federal Water Pollution Control Act, the Congress waived sovereign immunity of federal facilities and mandated that all federal agencies "be subject to, and comply with, all federal, state, interstate and local requirements,

and process and sanctions respecting the control and abatement of water pollution in the same manner, and to the same extent as an non-governmental entity..." The State of Michigan will ask the Court to adjudge that the United States Department of the Air Force has allowed, and is continuing to allow, a toxic hazardous substance, Trichloroethylene (TCE), to be directly discharged to groundwaters, and thereby has indirectly discharged TCE to navigable surface waters, at the Wurtsmith Air Force Base, Michigan, thereby generally creating a public nuisance, and specifically being in violation of the Federal Water Pollution Control Act, applicable federal regulations, and further in violation of the Michigan Water Resources Commission Act, 1929 PA 245, as amended, and applicable administrative rules, and of the Michigan Environmental Protection Act, 1970 PA 127.

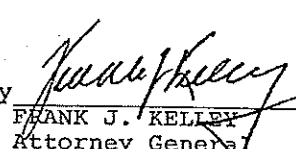
The State of Michigan will further ask the Court to adjudge that the United States Environmental Protection Agency, as the primary enforcement authority, had, and continues to have, a clear duty to act to enforce the law and its own administrative order and that, unless the Environmental Protection Agency elects to join the State of Michigan as a plaintiff, it should be required to appear as a defendant at the Bar of Justice to account for the administrator's failure to carry forth his duty.

You are advised that injunctive and other relief will be prayed for against all defendants.

Baring a full prior resolution of this issue, the
civil action will be instituted sixty (60) days from the
date of your receipt of this Notice.

State of Michigan

by


FRANK J. KELLEY
Attorney General

The Law Building
525 West Ottawa
Lansing, Michigan 48913
(517) 373-1110

Dated: May 15, 1979

DISTRIBUTION OF COPIES
OF THIS NOTICE

Pursuant to 40 C.F.R. 135, 38 F.R. 15040 (June 7, 1973),
copies of this Notice and attachments are being served by
Certified Mail upon the following persons:

The Honorable Harold Brown
Secretary of Defense
The Pentagon
Washington, D.C. 20301

The Honorable George Marienthal
Deputy Assistant Secretary for
Environment and Safety
Department of Defense
The Pentagon
Washington, D.C. 20301

The Honorable John C. Stetson
Secretary
Department of the Air Force
The Pentagon
Washington, D.C. 20301

Colonel Richard Fouss
Base Commander
Department of the Air Force
Headquarters 379th Combat Support Group (SAC)
Wurtsmith Air Force Base, Michigan 48753

Mr. Douglas Costle
Administrator
U.S. Environmental Protection Agency
401 M. Street, S.W.
Washington, D.C. 20460

Mr. John McGuire
Regional Administrator
U.S. Environmental Protection Agency
Region V
230 South Dearborn Street
Chicago, Illinois 60604

Mr. Marvin Durning
Assistant Administrator for Enforcement
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

The Honorable Griffin Bell
Attorney General
Washington, D.C. 20530

Howard A. Tanner
Director
Michigan Department of Natural Resources
Stevens T. Mason Building
Lansing, MI 48909

U.S. ENVIRONMENTAL PROTECTION AGENCY Region V 230 South Dearborn Street Chicago, Illinois 60604		ACTION: INFO:	EXHIBIT B				
ACCOUNTING CLASSIFICATION EPA-A		DATE PREPARED February 24, 1978					
FOR INFORMATION CALL							
NAME Jane E. Schulteis		PHONE NUMBER 353-2094	TYPE OF MESSAGE ☒ SINGLE ☐ BOOK ☐ MULTIPLE-ADDRESS				
THIS SPACE FOR USE OF COMMUNICATION UNIT							
MESSAGE TO BE TRANSMITTED (Use double spacing and all capital letters)							
TO: LT. COL. NICHOLAS SCAMBILIS HQ SAC/DEVQ OFFUTT AIR FORCE BASE NEBRASKA 68113 ON FEBRUARY 16, 1978, A MEETING WAS HELD AT WURTHSMITH AIR FORCE BASE, MICHIGAN AMONG REPRESENTATIVES OF THE AIR FORCE, THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION V, (U.S. EPA) AND THE MICHIGAN DEPARTMENT OF NATURAL RESOURCES (MDNR) TO DISCUSS MEASURES WHICH WILL BE TAKEN BY THE BASE TO PURGE THE CONTAMINATED GROUND WATER OF TRICHLOROETHYLENE (TCE). THIS TELEGRAM DOCUMENTS THE AGREEMENT REACHED AND THE COMMITMENTS MADE BY THE PARTIES. 1. WITHIN 30 DAYS OF THE FEBRUARY 16, 1978, MEETING, THE BASE AGREED TO HIRE OR SECURE A CONSULTANT WHO WILL REVIEW THE HYDROGEOLOGIC DATA PRESENTLY AVAILABLE TO THE BASE. IF THAT DATA IS NOT ADEQUATE TO DEFINE THE EXTENT AND DIRECTION OF THE MOVEMENT OF THE GROUND WATER CONTAMINATION, THE CONSULTANT WILL CONDUCT FURTHER STUDIES TO OBTAIN AN ADEQUATE DATA BASE TO DESIGN A PURGE WELL SYSTEM TO REMOVE THE CONTAMINATED							
SECURITY CLASSIFICATION			<table border="1"> <tr> <td>PAGE NO.</td> <td>NO. OF PGS.</td> </tr> <tr> <td>1</td> <td>5</td> </tr> </table>	PAGE NO.	NO. OF PGS.	1	5
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ACCOUNTING CLASSIFICATION		DATE PREPARED	TYPE OF MESSAGE	
FOR INFORMATION CALL			☐ SINGLE ☐ BOOK ☐ MULTIPLE ADDRESS	
NAME	PHONE NUMBER			
THIS SPACE FOR USE OF COMMUNICATION UNIT				
MESSAGE TO BE TRANSMITTED (Use double spacing and all capital letters)				
TO:	GROUND WATER. THE BASE WILL SUBMIT ALL HYDROGEOLOGIC INFORMATION WITH THE CONSULTANT'S RECOMMENDATIONS TO THE MDNR FOR REVIEW. FOLLOWING THE MDNR'S REVIEW, THE AGREED PLAN MUST BE IMPLEMENTED IN THE SHORTEST POSSIBLE TIME; 2. AT THE FEBRUARY 16, 1978, MEETING, IT WAS THE AIR FORCE'S POSITION THAT 90% TCE COULD BE REMOVED THROUGH AERATION. THE U.S. EPA AND THE MDNR AGREED, IN THE INTERIM, THAT THE AIR FORCE DESIGN, INSTALL, AND EVALUATE SUCH AN AERATION SYSTEM WHICH IS TO BE INSTALLED PRIOR TO DISCHARGE OF THE PURGED WELL WATER INTO THE SEWAGE TREATMENT PLANT SYSTEM. THE BASE WILL NOTIFY THE U.S. EPA AND THE MDNR OF THE PROGRESS OF THE AERATION SYSTEM. THIS WILL BE ACCOMPLISHED IN THE SHORTEST POSSIBLE TIME; 3. IT WAS THE POSITION OF BOTH THE U.S. EPA AND THE MDNR THAT AN AERATION SYSTEM WAS ONLY AN INTERIM SOLUTION TO THE TCE CONTAMINATION OF THE GROUND WATER. BECAUSE OF THE UNCERTAINTIES IMPLICIT IN THE AERATION SYSTEM, THE BASE AGREED TO INITIATE AND COMPLETE THE FORMALITIES PREREQUISITE TO OBTAINING A CARBON FILTRATION OR EQUIVALENT TREATMENT DEVICE TO REMOVE TCE FROM THE GROUND WATER;			
		SECURITY CLASSIFICATION		
		PAGE NO.	NO. OF PGS.	
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ACTION:		INFO:
ACCOUNTING CLASSIFICATION	DATE PREPARED	TYPE OF MESSAGE
FOR INFORMATION CALL		☐ SINGLE
NAME	PHONE NUMBER	☐ BOOK
		☐ MULTIPLE-ADDRESS

THIS SPACE FOR USE OF COMMUNICATION UNIT

MESSAGE TO BE TRANSMITTED (Use double spacing and all capital letters)

TO: 4. THE MDNR WILL DEFINE THE QUANTITY OF TCE WHICH SHALL BE CONSIDERED TO BE A "DETECTABLE LEVEL". THE MDNR WILL ALSO DETERMINE THE AMOUNT OF MONITORING TO BE DONE FOR THE TCE IN THE AERATION SYSTEM, THE SEEPAGE LAGOON, AND THE WASTE TREATMENT SYSTEM. THE MDNR WILL NOTIFY THE U.S. EPA AND THE BASE THEREOF. I HAVE ASKED THE MDNR TO DO THIS BY MARCH 8, 1978; AND

5. THE BASE WILL EXPEDITE THE TIME IN WHICH THE RESULTS OF MONITORING SAMPLES ARE OBTAINED.

ALL OF THE NOTIFICATIONS AND SUBMISSIONS INDICATED ABOVE SHOULD BE MADE TO:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION V

ENFORCEMENT DIVISION

ATTN: MICHAEL MUTHAN, ENGINEERING UNIT

230 SOUTH DEARBORN

CHICAGO, ILLINOIS 60604

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

BUREAU OF ENFORCEMENT, DIVISION OF ENVIRONMENTAL ENFORCEMENT

ATTN: DR. JAMES TRUCHAN

STEVENS T. MASON BUILDING

LANSING, MICHIGAN 48926

SECURITY CLASSIFICATION

PAGE NO.	NO. OF PGS.
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STANDARD FORM 14
REVISED AUGUST 1967
GSA FPMR (41 CFR) 101-11.304

U.S. GOVERNMENT PRINTING OFFICE: 1974-535-402

ACTION:		INFO:
ACCOUNTING CLASSIFICATION	DATE PREPARED	TYPE OF MESSAGE
FOR INFORMATION CALL		☐ SINGLE ☐ BOOK ☐ MULTIPLE-ADDRESS
NAME	PHONE NUMBER	
THIS SPACE FOR USE OF COMMUNICATION UNIT		

MESSAGE TO BE TRANSMITTED (Use double spacing and all capital letters)

TO: WE REQUEST THAT YOU RESPOND TO THIS TELEGRAM, WITHIN TEN(10) DAYS OF RECEIPT, BY AFFIRMING IN WRITING THAT THE TERMS SET FORTH HEREIN WILL BE IMPLEMENTED BY THE BASE. IN ORDER TO FULLY IMPLEMENT THE ABOVE ITEMS, I AM ALSO ASKING YOU TO COMMIT TO THE FOLLOWING:

- A. A TIME CERTAIN TO IMPLEMENT THE CONSULTANT'S RECOMMENDATIONS, DESIGN, AND INSTALLATION OF THE NECESSARY PURGE SYSTEM AFTER IT IS APPROVED BY THE MDNR;
- B. A DATE CERTAIN TO COMPLETE THE CONSTRUCTION AND IMPLEMENTATION OF THE INTERIM AERATION SYSTEM;
- C. A DATE CERTAIN TO FINALIZE ARRANGEMENTS TO ACQUIRE AND UTILIZE THE CARBON FILTRATION OR EQUIVALENT TREATMENT DEVICE. THE MDNR SHOULD BE NOTIFIED OF THE DATES ON WHICH THE REQUESTS FOR FUNDS ARE SUBMITTED THROUGH AIR FORCE CHANNELS TO ACQUIRE THE CARBON FILTRATION OR EQUIVALENT DEVICE;
- D. A SPECIFIC PLAN AND DATE CERTAIN FOR IMPLEMENTATION OF THE EXPEDITED SCHEDULE FOR OBTAINING THE ANALYTICAL RESULTS OF SAMPLES TAKEN; AND
- E. IT WAS FURTHER AGREED BETWEEN MDNR PERSONNEL AND

SECURITY CLASSIFICATION

PAGE NO.	NO. OF PGS.
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STANDARD FORM 14
REVISED AUGUST 1967
GSA FPMR (41 CFR) 101-35.30A

U.S. GOVERNMENT PRINTING OFFICE: 1974-535-402

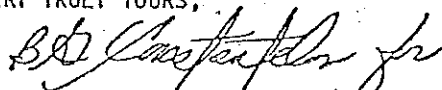
ACCOUNTING CLASSIFICATION		DATE PREPARED	TYPE OF MESSAGE
FOR INFORMATION CALL			☐ SINGLE ☐ BOOK ☐ MULTIPLE-ADDRESS
NAME	PHONE NUMBER		

THIS SPACE FOR USE OF COMMUNICATION UNIT

MESSAGE TO BE TRANSMITTED (Use double spacing and all capital letters)

TO: COLONEL HARVEY J. HAAS, BASE COMMANDER, THAT THE BASE WILL REMOVE THE 500 GALLON STORAGE TANK FOR WASTE TCE THAT CAUSED THE CONTAMINATION PROBLEM. A DATE CERTAIN FOR REMOVAL OF THE TANK SHOULD BE SUBMITTED TO THE MDNR & THE U.S. EPA. THE U.S. EPA CONTINUES TO BE VERY CONCERNED ABOUT THIS MATTER. IMPLEMENTATION OF THE ABOVE PROGRAM, ON AN EXPEDITED BASIS, IS A NECESSARY STEP. WHILE A FORMAL ENFORCEMENT ACTION HAS NOT YET BEEN INITIATED BY U.S. EPA, WE ARE FULLY PREPARED TO SO PROCEED IF AN AGGRESSIVE CLEAN-UP PROGRAM IS NOT FOLLOWED. IF YOU HAVE ANY QUESTIONS CONCERNING THIS MATTER, PLEASE CONTACT ME DIRECTLY AT (312) 353-2176.

VERY TRULY YOURS,



DALE S. BRYSON, DEPUTY DIRECTOR
ENFORCEMENT DIVISION

SECURITY CLASSIFICATION

PAGE NO.	NO. OF PGS.
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V
STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES

In the Matter of

UNITED STATES AIR FORCE,
WURTSMITH AIR FORCE BASE,
ATTN: LT. COL. NICHOLAS SCAMBILIS,
Headquarters 379th Combat Support
Group (SAC),
County of Iosco, Michigan

EPA-V-W-78-AO-

MDNR-NV 1978-19

PURSUANT TO SECTIONS
308 and 309 OF THE CLEAN WATER
ACT, 33 U.S.C. sections 1318
and 1319, AND 1929 PA 245,
MCLA 323.1 et seq; MSA 3.521 et seq.

JOINT FINDINGS AND
NOTICE OF VIOLATION AND
ORDER FOR COMPLIANCE

The following JOINT FINDINGS AND NOTICE OF VIOLATION AND ORDER FOR COMPLIANCE is issued pursuant to the authority vested in the Administrator of the United States Environmental Protection Agency (U.S. EPA) by the above-referenced statute (CWA) and duly redelegated to the undersigned Director, Enforcement Division, Region V, and in the Director of the Michigan Department of Natural Resources (MDNR) by the above-referenced statutes.

JOINT FINDINGS

1. The United States Department of the Air Force has allowed a toxic hazardous substance, Trichloroethylene (TCE), to be discharged to the groundwaters of the State of Michigan at the Wurtsmith Air Force Base, Iosco County, Michigan.
2. For at least nine months, the Air Force has failed to take effective corrective action to prevent the movement of TCE through the groundwater from the original point of TCE contamination at an unprotected, buried storage tank.
3. The TCE has now seriously contaminated groundwaters approximately four miles from the original point of contamination and the contamination poses an imminent threat to the surface waters of the State and Nation.

4. The continual seepage of TCE from the spill location and continued ineffective, improper corrective actions at the Air Force Base have polluted, impaired and potentially destroyed the groundwaters of the State of Michigan and pose an imminent threat to the surface waters of the State and Nation, and, in particular, Van Etten Creek, Van Etten Lake and Lake Huron.

5. The Air Force has polluted, impaired and destroyed the public drinking water supply at the Air Force Base with TCE and there is cause to believe that groundwaters contaminated with TCE from the Air Force Base are moving towards private drinking water supply points, in particular, Van Etten Creek, Van Etten Lake and Lake Huron.

6. At a meeting on February 16, 1978, between representatives of the Air Force, the MDNR, and the U.S. EPA, the Air Force committed itself to hiring a consultant who would, from an adequate data base, define the extent and direction of the movement of groundwater contamination; to install an aeration system to achieve 90% TCE removal; to obtain a carbon filtration or equivalent treatment system; to expedite the time in which the results of monitoring samples are obtained; and reaching a nondetectable level of TCE to be tested at points designated by the MDNR.

7. A telegram, dated February 24, 1978, sent to Lt. Col. Scambillis from Dale S. Bryson, Deputy Director, Enforcement Division, U.S. EPA, recounted the commitments enumerated in item 6 above. A copy of that telegram and subsequent supporting documents are affixed hereto as Attachments A, B, C and D.

8. Sample data collected by the Air Force, the MDNR, and the U.S. EPA from December 1977 to the present show that neither the 90% removal rate nor the nondetectable level have been achieved by the aeration system installed at Wurtsmith Air Force Base.

9. Only an initial plan for a hydrogeological study has been submitted to U.S. EPA and the MDNR. That initial plan was done by Keck Consulting Services, Inc. on March 16, 1978. Information available to the MDNR and U.S. EPA shows that the initial plan was never implemented to study the groundwater flow in the environs of Wurtsmith Air Force Base.

10. The TCE-contaminated soil adjacent to Building #43 has not been disposed in a manner acceptable to the MDNR and outlined by that Agency in a letter dated May 11, 1978. Affixed hereto as Attachment E.

11. The Michigan Department of Public Health (MDPH), in a letter dated September 8, 1978 (Attachment F), advised Wurtsmith Air Force Base that certain drinking water wells on the Base should not be used because they are contaminated with TCE. Since the unuseable wells comprise a substantial portion of the Base's entire water supply, the MDPH is very concerned about the Base's ability to meet its demand for a safe potable water supply.

JOINT NOTICE OF VIOLATION
AND
ORDER FOR COMPLIANCE

BASED ON THE FOREGOING JOINT FINDINGS, notice is hereby given to the United States Air Force that Wurtsmith Air Force Base is in violation of the above-referenced statutes and that the environment, public health, safety and welfare are threatened.

Accordingly, IT IS HEREBY ORDERED that:

A. The Air Force shall immediately take all necessary steps to provide a safe, potable water supply to the residents, visitors and employees at Wurtsmith Air Force Base and to all private citizens with contaminated drinking water supplies. In order to guarantee a safe drinking water supply, the Air Force, shall, as a minimum, limit the amount of TCE to their sewage lagoons to a nondetectable level.

B. Within 15 days of receipt of this ORDER, the Air Force shall submit a plan and timetable, acceptable to the U.S. EPA and the MDNR, for a complete hydrogeological investigation to determine the rate and direction of groundwater flow and the extent of groundwater contamination. After the hydrogeological investigation is completed, the Air Force shall provide all data generated by the investigation to the MDNR and the U.S. EPA for their review. If the MDNR or U.S. EPA determines the investigation is inadequate, the Air Force shall obtain and submit the additional data within 15 days.

C. Within 20 days of receipt of the results of the hydrogeological investigation, the Air Force shall submit a final remedial plan, acceptable to U.S. EPA and MDNR, to take remedial measures based on the results of the hydrogeological investigation. The final remedial plan shall include the use of a carbon filtration system, or an equivalent system, to treat all the TCE purge water and a schedule of implementation for the corrective actions listed in the final remedial plan.

D. Within 30 days after U.S. EPA and the MDNR have approved the final remedial plan the Air Force shall implement the plan described in C above.

E. Upon the effective date of this ORDER, and until item D above is achieved, the Air Force shall undertake a program acceptable to U.S. EPA and the MDNR to minimize groundwater contamination and halt its spread.

F. The Air Force shall within 30 days of the effective date of this ORDER remove and dispose of all TCE-contaminated soils and sludges at Wurtsmith Air Force Base to a site approved by the MDNR.

THIS ORDER IS MADE EFFECTIVE UPON RECEIPT OF A COPY DELIVERED BY CERTIFIED MAIL

Signed this 18 day of October, 1978.

James O. McDonald, Director
Enforcement Division
U.S. Environmental Protection
Agency, Region V

Signed this 18 day of October, 1978.

Howard A. Tanner, Director
Michigan Department of Natural
Resources

EXHIBIT D

