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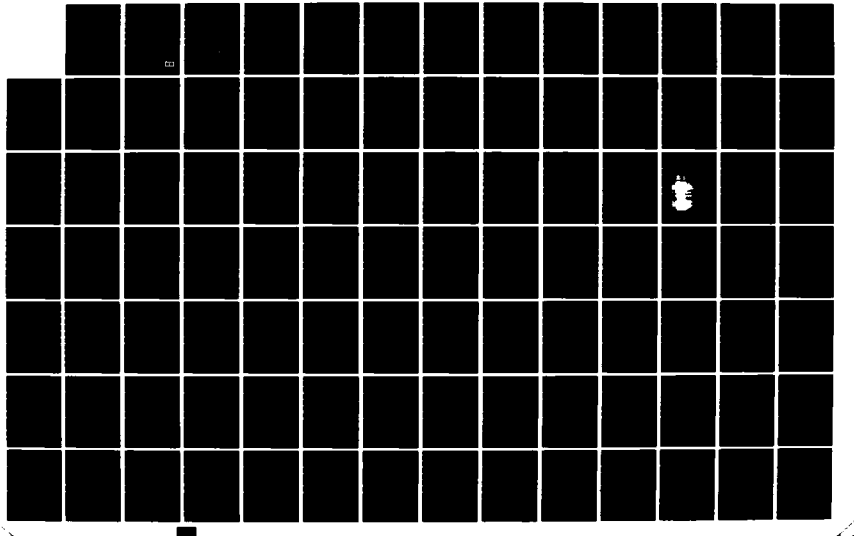

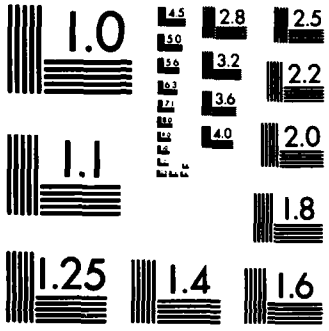

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FINAL REPORT INSTALLATION RESTORATION PROGRAM

PHASE II — CONFIRMATION McCLELLAN AFB, CALIFORNIA

Contract F33615-80-D-4001

VOLUME II

PREPARED FOR

U S AIR FORCE OCCUPATIONAL AND ENVIRONMENTAL HEALTH LABORATORY BROOKS AFB, TEXAS

JUNE 1983

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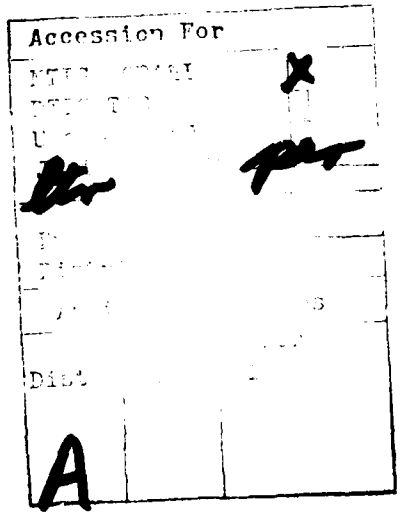

FINAL REPORT

INSTALLATION RESTORATION PROGRAM

PHASE II - CONFIRMATION

McCLELLAN AFB, CALIFORNIA

VOLUME II

Prepared for

US AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH LABORATORY
BROOKS AFB, TEXAS

June 1983

Prepared by

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Partial

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APPENDIX H

SAMPLING EVENTS FOR STAGE I AND STAGE II MONITORING WELLS

SAMPLING EVENTS

STAGE I MONITORING WELLS

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 16S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
6/16/82	97.7	Pump ran for 7 minutes until well ran dry (9:05 - 9:12). At 1:30, there were only two feet of water in the well. Bailer was used to sample. Bailer was rinsed in acetone and DI water.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (half full for GC/MS) 1 VOA bottle
8/17/82	100.0	Not enough water was initially in well for pumping. Ten bailer volumes (approximately 3 gallons) were removed prior to sampling. Samples were obtained using double sampler technique. Water samples appeared turbid. Both the bailer and samplers were rinsed with acetone and DI water.	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)
10/8/82	100.29	Not enough water was initially in well for pumping. Using the bailer (1200-ml), ten bailer volumes were removed prior to sampling. Samples were obtained using the glass/Teflon sampler prerinsed with acetone and DI water. One sampler volume was collected and extruded before actual sample was obtained.	3 VOA bottles (TCE only)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 17S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
6/15/82	94.0	Pump ran for 2 minutes at 3 gpm. About one casing volume was pumped out; well ran dry.	———
6/16/82	94.1	Pumped for 6 minutes before sampling from Teflon tubing.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 1 VOA bottle
8/17/82	96.2	Not enough water was initially in well for pumping. Ten bailer volumes (approximately 3 gallons) removed prior to sampling (about one casing volume). Samples were obtained using double sampler technique. Water samples appeared turbid. Both the bailer and samplers were rinsed with acetone and DI water.	1 gallon bottle (pest/herb/PCB's) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 18S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
6/15/82	90.7	Pump ran for 15 minutes, stopped for 5 minutes; ran again for 10 minutes before sampling from Teflon tubing.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 1 VOA bottle
8/16/82	92.9	Not enough water was initially in well for pumping. Ten bailer volumes (approximately 3 gallons) were removed prior to sampling (less than one casing volume). Samples were obtained using the glass/Teflon sampler. Water samples were slightly turbid. Both the bailer and sampler were rinsed with acetone and DI water.	1 gallon bottle (pest/herb/PCB's) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 19S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
4/28/82	79.8	There were about 2 feet of water in the well. Samples were taken with bailer. Bailer rinsed with acetone and DI water.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 1 VOA bottle
8/16/82	81.3	Not enough water was initially in well for pumping. Ten bailer volumes (approximately 3 gallons) were removed prior to sampling (less than one casing volume). Samples were obtained using the glass/Teflon sampler. Water samples appeared slightly turbid. Both the bailer and sampler were rinsed with acetone and DI water.	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 20S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
4/28/82	80.3	Well was silty. Bailer was used to sample water for VOA bottle and part of GC/MS bottle.	1 gallon bottle (part full for GC/MS) 1 VOA bottle
5/25/82	83.5	Well was redeveloped and sampled with bailer since previous sample was insufficient. Hydrocarbons were on top of water surface, about 1/2 inch in thickness. The VOA sample broke. Bailer rinsed with Freon and DI water.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 1 VOA bottle
6/8/82	84.0	Resampled VOA bottle with bailer. Hydrocarbons still present. Bailer rinsed with Freon and DI water.	1 VOA bottle
8/11/82	84.4	Strong hydrocarbon odor present. Ten bailer volumes (approximately 3 gallons) were removed prior to sampling. Water in well was initially clear with hydrocarbon layer on surface. Water became silty during bailing. Samples were obtained using the glass/Teflon sampler. Both the bailer and sampler were rinsed with Freon, acetone, and DI water.	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide) 1 quart bottle (aliphatics)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 21S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
6/15/82	78.3	Pump did not work. Bailed out about 1-1/2 gallons before sampling. Sampled with bailer. Bailer rinsed with acetone and DI water.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (half full for GC/MS) 1 VOA bottle
8/13/82	79.3	Not enough water was initially in well for pumping. Ten bailer volumes (approximately 3 gallons) were removed prior to sampling (less than one casing volume). Samples were obtained using the glass/Teflon sampler. Both the bailer and sampler were rinsed with acetone and DI water.	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 22S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
6/4/82	84.9	Sampled with bailer; about 1-1/2 gallon well water was removed before sampling. The VOA sample was broken. Bailer rinsed with acetone and DI water.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 1 VOA bottle
6/18/82	85.9	About 1 gallon of well water removed. Resampled with bailer. Bailer rinsed with acetone and DI water.	1 VOA bottle
8/13/82	86.8	Not enough water was initially in well for pumping. Five bailer volumes (approximately 1-1/2 gallons) were removed from well until bailer stopped working. Samples were obtained using glass/Teflon sampler. Water samples appeared slightly turbid. Both the bailer and sampler were rinsed with acetone and DI water.	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottles (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 23S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
4/28/82	84.2	Water was silty at bottom of well; pump did not work. Bailer was used to bail about 1-1/2 gallons of well water. Samples were taken with bailer. Bailer rinsed with acetone and DI water.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 1 VOA bottle
8/13/82	90.1	Not enough water was initially in well for pumping. On 8/12/82, ten bailer volumes (approximately 3 gallons) were removed, but the well was not sampled. On 8/13/82, five additional bailer volumes were removed (approximately 1-1/2 gallons) prior to sampling. Together, about 1-1/2 casing volumes were removed. Samples were taken with the glass/Teflon sampler; sample water was turbid. Both the bailer and sampler were rinsed with acetone and DI water.	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 24S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
4/28/82	85.2	Pump ran for 2 minutes and stopped. Samples were taken with bailer. Bailer rinsed with acetone and DI water.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 1 VOA bottle
8/12/82	89.8	Not enough water was initially in well for pumping. Ten bailer volumes (approximately 3 gallons) were removed prior to sampling (less than one casing volume). Samples were obtained using the glass/Teflon sampler. Sampled water was turbid. Both the bailer and sampler were rinsed with acetone and DI water.	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 25S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
6/15/82	94.7	Pump ran for 2 minutes, stopped for 5 minutes, ran again for 3 minutes and stopped for 5 minutes. Samples were taken from the Teflon tubing. One-half gallon of the GC/MS sample was taken with the bailer. Bailer rinsed with acetone and DI water.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 1 VOA bottle
8/12/82	96.4	Not enough water was initially in well for pumping. Ten bailer volumes (approximately 3 gallons) were removed prior to sampling (less than one casing volume). Samples were obtained using the glass/Teflon sampler. Sampled water was turbid. Both the bailer and sampler were rinsed with acetone and DI water.	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 26S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
4/28/82	95.7	Water was very silty. The plastic bailer was used to remove 3 gallons of well water. Sample was taken with bailer. Bailer rinsed with acetone and DI water.	1 VOA bottle
4/29/82	95.2	Bailer was used for sampling. Well was silty. Bailer rinsed with acetone and DI water.	1 gallon bottle (GC/MS)
6/16/82	96.5	Well had to be resampled for pesticides/herbicides as the well was too silty in April. It was redeveloped. Bailer was used for sampling. Bailer rinsed with acetone and DI water.	1 gallon bottle (pest/herb/metals)
8/11/82	97.5	Not enough water was initially in well for pumping (<10 feet); the pump was tried but failed to remove water. Ten bailer volumes (approximately 3 gallons) were removed prior to sampling; the well was bailed almost dry. Samples were obtained using the glass/Teflon sampler. Both the bailer and sampler were rinsed with acetone and DI water.	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide) 1 quart glass bottle (cresylic acid)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 27S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
4/28/82	85.6	Water was very silty and pump did not work. The bailer was used to remove 3 gallons of well water before sampling. Bailer was used for sampling. Bailer rinsed with acetone and DI water.	1 gallon bottle (GC/MS) 1 VOA bottle
6/16/82	95.1	Well was redeveloped. Pump ran for 3 minutes, stopped for 22 minutes, ran again for 2 minutes. Sample taken from Teflon tubing.	1 gallon bottle (pest/herb/metals)
8/12/82	96.0	Not enough water was initially in well for pumping. Ten bailer volumes (approximately 3 gallons) were removed prior to sampling (less than one casing volume). Samples were obtained using the glass/Teflon sampler. Sampled water was turbid. Both the bailer and sampler were rinsed with acetone and DI water.	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 28S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
6/16/82	70.2	Pump did not work. Bailer was used for sampling. Bailer rinsed with acetone and DI water.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (half full for GC/MS) 1 VOA bottle
8/17/82	---	Well was completely dry.	None

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 29S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
4/28/82	88.8	Bailer was used for sampling. Bailer rinsed with acetone and DI water.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 1 VOA bottle
8/16/82	91.9	Not enough water initially in well for pumping. One bailer volume (approximately 1,200 mls) was removed prior to sampling. Less than 1 foot of water was in the well. Samples were obtained using the glass/Teflon sampler. Water sample was very silty and sandy. Both the bailer and sampler were rinsed with acetone and DI water.	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 30

Date	Water Level (feet)	Sampling Procedure	Samples Taken
6/16/82	94.9	Bailer was used for sampling, after about 2 gallons of well water were removed. Bailer rinsed with acetone and DI water.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (half full for GC/MS) 1 VOA bottle
8/17/82	97.1	Not enough water was intially in well for pumping. Ten bailer volumes (approximately 3 gallons) were removed prior to sampling (less than one casing volume). Samples were obtained using the glass/Teflon sampler. Sampled water initially clear, but became turbid while bailing. Both the bailer and sampler were rinsed with acetone and DI water.	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 31

Date	Water Level (feet)	Sampling Procedure	Samples Taken
6/15/82	89.2	Pump ran for 10 minutes. Samples taken from Teflon tubing.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 1 VOA bottle
8/17/82	90.3	Pump ran for 3 minutes until well went dry at 2.2 gpm. About 7 gallons were removed from well during pumping, slightly less than one casing volume. Samples were obtained using double sampler technique. Water samples appeared clear. The samplers were rinsed with acetone and DI water.	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 16D

Date	Water Level (feet)	Sampling Procedure	Samples Taken
6/16/82	99.8	Pump ran for 30 minutes. Samples were taken from the Teflon tubing discharge.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 1 VOA bottle
8/17/82	102.1	Continuous pumping for 30 minutes at 2.2 gpm. In excess of 3 casing volumes were pumped from well before sampling. Samples were taken from Teflon tubing. Pumped water was clear.	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 17D

Date	Water Level (feet)	Sampling Procedure	Samples Taken
6/15/82	94.3	Continuous pumping for 40 minutes at 2.5 gpm. Samples were taken from Teflon tubing.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 1 VOA bottle
8/17/82	96.5	Continuous pumping for 35 minutes at >2.2 gpm. In excess of 3 casing volumes were pumped from well before sampling. Samples were taken from Teflon tubing. Pumped water was clear.	1 gallon bottle (pest/herb/PCB's) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 18D

Date	Water Level (feet)	Sampling Procedure	Samples Taken
6/15/82	91.3	Pump ran for 10 minutes, stopped for 2 minutes; ran for 21 minutes and stopped for 12 minutes; ran again for 20 minutes. Samples were taken from Teflon tubing.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 1 VOA bottle
8/16/82	94.0	Continuous pumping for 55 minutes at 2.2 gpm. In excess of 3 casing volumes were pumped from well before sampling. Samples were taken from Teflon tubing. Pumped water was clear.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 19D

Date	Water Level (feet)	Sampling Procedure	Samples Taken
4/28/82	79.8	Well was pumped for 30 minutes Samples were taken from Teflon tubing.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 1 VOA bottle
8/16/82	82.4	Continuous pumping for 70 minutes at 2.2 gpm. In excess of 3 casing volumes were pumped from well before sampling. Samples were taken from Teflon tubing. Pumped water was clear.	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 20D

Date	Water Level (feet)	Sampling Procedure	Samples Taken
4/28/82	83.1	Pump ran for 30 minutes. Samples were taken from Teflon tubing.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 1 VOA bottle
8/11/82	86.0	Continuous pumping for 93 minutes at 2.2 gpm. In excess of 3 casing volumes were pumped from well before sampling. Samples were taken from Teflon tubing. Pumped water was clear and had no apparent odor (i.e., aliphatics).	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 1 quart polyethylene bottle (cyanide) 1 quart bottle (aliphatics)
9/4/82	86.06	Sampled well directly with glass/Teflon sampler without prior bailing. Sample collected at 11:30 a.m.	1 liter bottle (aliphatics)
9/4/82	86.06	Continuous pumping for 165 minutes at 2.5 gpm. Samples were taken from Teflon tubing. Pumped water was clear. Sample collected at 2:45 p.m.	1 liter bottle (aliphatics)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 21D

Date	Water Level (feet)	Sampling Procedure	Samples Taken
6/15/82	78.6	The well was pumped for 40 minutes. Samples were taken from the Teflon tubing.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 1 VOA bottle
8/13/82	80.0	Continuous pumping for 50 minutes at 2.2 gpm. In excess of 3 casing volumes were pumped from well before sampling. Samples were taken from Teflon tubing. Pumped water was clear.	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 22D

Date	Water Level (feet)	Sampling Procedure	Samples Taken
4/28/82	84.1	Pump ran for 30 minutes. Samples taken from Teflon tubing.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 1 VOA bottle
8/13/82	87.1	Continuous pumping for 75 minutes at 2.2 gpm. In excess of 3 casing volumes were pumped from well before sampling. Samples were taken from Teflon tubing. Pumped water was clear.	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 23D

Date	Water Level (feet)	Sampling Procedure	Samples Taken
4/28/82	85.7	Well was pumped for 30 minutes and samples were taken from the Teflon tubing.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 1 VOA bottle
8/13/82	92.1	Continuous pumping for 70 minutes at 2.2 gpm. In excess of 3 casing volumes were pumped from well before sampling. Samples were taken from Teflon tubing. Pumped water was clear.	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 24D

Date	Water Level (feet)	Sampling Procedure	Samples Taken
4/28/82	85.5	Pump ran for 30 minutes before samples were taken from Teflon tubing.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 1 VOA bottle
8/12/82	92.7	Continuous pumping for 60 minutes at 2.2 gpm. Three casing volumes were pumped from well before sampling. Samples were taken from Teflon tubing. Pumped water was clear.	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 25D

Date	Water Level (feet)	Sampling Procedure	Samples Taken
6/15/82	94.9	Pump ran for 50 minutes. Samples were taken from the Teflon tubing.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 1 VOA bottle
8/12/82	96.8	Continuous pumping for 40 minutes at 2.2 gpm. In excess of three casing volumes were pumped from well before sampling. Samples were taken from Teflon tubing. Pumped water was clear.	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 26D

Date	Water Level (feet)	Sampling Procedure	Samples Taken
4/28/82	95.8	Well was pumped for 30 minutes and sampled from the Teflon tubing.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 1 VOA bottle
8/11/82	103.8	Continuous pumping for 53 minutes at 2.2 gpm until generator ran out of gas. Pumped again for 15 additional minutes at 2.2 gpm. In excess of 3 casing volumes pumped from well before sampling. Samples were taken from Teflon tubing. Pumped water was clear.	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide) 1 quart glass bottle (cresylic acid)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 27D

Date	Water Level (feet)	Sampling Procedure	Samples Taken
4/28/82	94.7	Pump ran for 30 minutes. Sample was collected with bailer. Bailer rinsed with acetone and DI water.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 1 VOA bottle
8/12/82	103.1	Continuous pumping for 45 minutes at 2.2 gpm. In excess of 3 casing volumes were pumped from well before sampling. Samples were taken from Teflon tubing. Pumped water was clear.	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 28D

Date	Water Level (feet)	Sampling Procedure	Samples Taken
6/16/82	98.7	Pump ran for 5 minutes. No more water was pumped out. The bailer was used for sampling. Bailer rinsed with acetone and DI water.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (half full for GC/MS) 1 VOA bottle
8/17/82	98.5	Continuous pumping for 30 minutes. Pump flow rate varied from 1 to 2.2 gpm. About three casing volumes were removed from well before sampling. Samples were taken from Teflon tubing. Pumped water varied from clear to slightly turbid.	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 29D

Date	Water Level (feet)	Sampling Procedure	Samples Taken
4/28/82	88.6	Pump ran for 30 minutes. Samples were taken from Teflon tubing.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 1 VOA bottle
8/16/82	93.5	Continuous pumping for 60 minutes at 2.2 gpm. In excess of three casing volumes were pumped from well before sampling. Samples were taken from Teflon tubing. Pumped water was clear.	1 gallon bottle (pest/herb) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

SAMPLING EVENTS

STAGE II MONITORING WELLS

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 338

Date	Water Level (feet)	Sampling Procedure	Samples Taken
9/29/82	83.52	Pump ran for 2 minutes at 2.5 gpm before well went dry. Less than one casing volume removed prior to sampling with double sampler. Pumped water was silty.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polythylene bottle (cyanide) 1 quart bottle (aliphatics)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 34S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
9/14/82	---	Well was dry with thick mud at the bottom.	None
9/28/82	---	Well contained insufficient water for sampling.	None

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 35S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
9/14/82	---	Well was dry with muddy silt at the bottom.	None

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 36S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
9/29/82	80.33	Well contained insufficient water for pumping or bailing. Samples obtained with double sampler. Sampled water was silty. Very muddy at bottom of well.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 37S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
9/28/82	83.58	Well contained insufficient water for pumping. Samples collected using double sampler technique. Sampled water was relatively clear.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 39S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
9/14/82	87.52	Very little water in well (approximately 1 foot). Well bailed 5 times prior to sampling. Samples obtained with sampler. Sampled water was brown and silty. Sample for GC/MS was obtained 9/15/82.	1 liter in gallon bottle (GC/MS) 2 VOA bottles 1 liter polyethylene bottle (half full for cyanide)
9/27/82	---	Well was dry.	None

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 40S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
9/29/82	97.06	Well contained insufficient water for pumping. Bailed 5 times prior to sampling. Sampled with double sampler (glass/Teflon and Teflon). Effluent appeared somewhat turbid but fairly clean.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide) 1 quart glass bottle (cresylic acid)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 41S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
9/14/82	95.52	Pumped for 33 minutes total, with flow rate of 2.0 gpm for 3.5 minutes, decreasing to 1.1 gpm thereafter. In excess of 3 casing volumes were removed prior to sampling. Pumped water was silty.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 2 VOA bottles 1 liter polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 42S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
9/15/82	---	Well was dry with 6 inches of mud at the bottom. Required further development.	None
9/27/82	89.73	Samples obtained using double sampler technique without prior bailing. Water appeared brown and cloudy.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 43S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
9/14/82	87.81	Pump ran for 2 minutes at 2.3 gpm, then well pumped dry. Pump effluent was clear. Samples obtained with double sampler after well went dry. Sample water was a muddy color. One sampler volume was emptied prior to sampling.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 2 VOA bottles 1 liter polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 44S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
9/13/82	78.375	Pumped for 101 minutes at 1.5 gpm initially, decreasing to <0.5 gpm. Twenty-five gallons pumped from well before sampling. Samples collected using pump. Pumped water was murky and silty.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 2 VOA bottles 1 liter polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 45S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
9/14/82	87.56	Less than 2 gallons were removed with bailer prior to sampling. Only 1.5 to 2 feet of water stood in well. Samples were collected with Teflon sampler. The sampled water was muddy.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 2 VOA bottles 1 liter polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 46S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
9/29/82	96.7	Well contained insufficient water for pumping. Bailed 5 times prior to sampling with glass sampler. Sampled water appeared turbid and very silty.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

2-50

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 47S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
9/29/82	83.98	Well contained insufficient water for either pumping or bailing. Sampled directly with glass/Teflon sampler. Sampled water was very muddy.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 48S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
9/15/82	---	Well was dry, and did not appear to be completed.	None

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 49S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
9/29/82	100.04	Well pumped dry in 17 minutes at initial flow rate of 1.4 gpm, increasing to 2-3 gpm. Well was allowed to recharge for 20 minutes, then was pumped dry again in 8 minutes. Samples obtained by pumping directly into sample bottles. Pumped water was initially clear but became murky.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 50S

Date	Water Level (feet)	Sampling Procedure	Samples Taken
9/14/82	---	Well was dry.	None

ES WELLS SAMPLING RECORD
McClellan AFB, California

WELL NO. 38D

Date	Water Level (feet)	Sampling Procedure	Samples Taken
9/27/82	80.21	Pumped 10 minutes at 2.4 gpm and well subsequently went dry. Allowed well to recharge for about 20 minutes and pumped again. Pump ran for 45 seconds before well pumped dry again. Pumped water was clear. Samples collected with double sampler. Sampled water was silty.	1 gallon bottle (pest/herb/metals) 1 gallon bottle (GC/MS) 2 VOA bottles 1 quart polyethylene bottle (cyanide)

2-55

APPENDIX I

WATER LEVEL DATA
MONITORING WELLS

WELL or DATE MW6

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 55.81 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
5/21/82		M-Scope	84.3	55.81	84.3	-28.5	YN	
6/8/82		"	85.3	55.81	85.3	-29.5	YN	
9/20/82		"	87.9	55.81	87.9	-32.1	YN	

WELL or DATE MW7

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 57.85 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
5/24/82		M-Scope	88.6	57.85	88.6	-30.8	YN	
6/8		"	89.1	57.85	89.1	-31.3	YN	
9/20		"	92.2	57.85	92.2	-34.4	YN	

WELL or DATE MW 8

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 77.45 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
1/11/82		M-Scope	99.5	77.45		-22.1	YN	
4/29/82		"	99.8	77.45		-22.4	MLM	
5/21/82		"					YN	No reading
6/9/82		"	102.5	77.45		-25.1	YN	
9/20/82		"	102.3	77.45		-24.9	YN	

WELL or DATE MW 9

WATER LEVEL DATA

WELL LOCATION McClellan MEASURING POINT Ground level

ELEVATION: MEASURING POINT _____ GROUND LEVEL 78.05 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
4/29/82		M-Scope	93.3	78.05	93.3	-15.3	MLH	
5/21		"	101.3	78.05	101.3	-23.25	YN	no well cap
6/9		"	103.1	78.05	103.1	-25.1	YN	"
9/20		"	105.0	78.05	105.0	-27.0	YN	"

WELL or DATE MW 10

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 56.17 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
5/21/82		M-Scope	78.7	56.17	78.7	-22.5	YN	
9/17		M-Scope	80.8	56.17	80.8	-24.6	YN	

WELL or DATE MW 11

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 53.38 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
5/21/82		M-Scope	76.2	53.38	76.2	-22.8	YN	
8/18		"	78.0	53.38	78.0	-24.6	JR	
9/17		"	78.5	53.38	78.5	-25.1	YN	

WELL or DATE HW 12

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 59.79 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
4/28/82		H-Scope	82.0	59.79	82.0	-22.2	MLH	
5/21		"	82.1	59.79	82.1	-22.3	YN	
8/18		"	84.1	59.79	84.1	-24.3	JR	
9/17		"	84.6	59.79	84.6	-24.8	YN	

WELL or DATE MW13

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 58.71 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
1/11/82		M-Scope	81.5	58.71	81.5	-22.8	YN	
5/21		"	81.0	58.71	81.0	-22.3	YN	
8/18		"	82.6	58.71	82.6	-23.9	JR	
9/17		"	83.0	58.71	83.0	-24.3	YN	

WELL or DATE MW 14

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 58.81 msl

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
5/21/82		M-Scope	81.0	58.81	81.0	-22.2	YN	
8/18		"	82.6	58.81	82.6	-23.8	JR	
9/17		"	83.3	58.81	83.3	-24.5	YN	

LOCATION

PROJECT

WELL or DATE MW 15

WATER LEVEL DATA

WELL LOCATION McClellan MEASURING POINT Ground level

ELEVATION: MEASURING POINT _____ GROUND LEVEL 56.61 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
1/11/82		M-Scope	80.0	56.61	80.0	-23.8	YN	
8/18		"	81.0	56.61	81.0	-24.8	JR	
9/17		"	81.3	56.61	81.3	-25.1	YN	

WELL or DATE MW 16S

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground Level

ELEVATION: MEASURING POINT

GROUND LEVEL 80.7' msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
3/11/82	8:00	M-scope	98.6	80.7	98.6	-17.9	YN	after aquenna
6/2								developed
6/10		M-scope	98.0	80.7	98.0	-17.3	YN	
6/16		M-scope	97.8	80.7	97.8	-17.1	YN	
8/17		"	100.0	80.7	100.0	-19.3	JR	
9/17		"	100.9	80.7	100.9	-20.2	YN	

WELL or DATE MW17S

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 73.3' msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
6/1/82								developed.
6/2		M-Scope	93.5	73.3'	93.5	-20.2	RZ	
6/9		M-Scope	93.8	73.3'	93.8	-20.5	YN	
6/16		M-Scope	94.1	73.3	94.1	-20.8	MH	
8/17		"	96.2	73.3	96.2	-22.9	JR	
9/23		"	96.4	73.3	96.4	-23.1	JDZ	

WELL or DATE MW 18 S

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground Level

ELEVATION: MEASURING POINT

GROUND LEVEL 69.2 m.s.l.

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
6/1/82								developed
6/2		M-Scope	90.8	69.2	90.8	-21.6	RZ	
6/9		M-Scope	91.3	69.2	91.3	-22.1	VN	
6/15		M-Scope	90.8	69.2	90.8	-21.6	HLH	
8/16		"	92.9	69.2	92.9	-23.7	JR	
9/23		"	93.0	69.2	93.0	-23.8	JDZ	

WELL or DATE MW19S

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 57.8 msL

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
5/19/82								Replaced
5/19		H-Scope	82.3	57.8	82.3	-24.5	YN	
5/20		"	80.0	57.8	80.0	-22.2	YN	
5/21		"	79.9	57.8	79.9	-22.1	YN	
6/9		"	80.2	57.8	80.2	-22.4	YN	
8/16		"	81.3	57.8	81.3	-23.5	JR	
9/17		"	81.3	57.8	81.3	-23.5	YN	

WELL or DATE MW 20S

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 60.1 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
5/19/82								developed
5/20	10:00	H-Scope	83.4	60.1	83.4	-23.3	YN	
5/20	12:30	"	83.6	60.1	83.6	-23.5	YN	
5/21	1:20	"	82.8	60.1	82.8	-22.7	YN	
5/25		"	83.5	60.1	83.5	-23.4	YN	½" hydrocarbon
6/8		"	84.0	60.1	84.0	-23.9	YN	"
8/11		"	84.4	60.1	84.4	-24.3	JR	"
9/17		"	84.9	60.1	84.9	-24.8	YN	"
9/22		"	84.8	60.1	84.8	-24.7	JDZ	"

WELL or DATE MW 21S

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground Level

ELEVATION: MEASURING POINT

GROUND LEVEL 57.5 MSL

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
6/2/82								Developed
6/8		M-Scope	81.9	57.5	81.9	-24.4	YN	
6/15		"	78.2	57.5	78.2	-20.7	YN	
8/13		"	79.3	57.5	79.3	-21.8	JR	
9/17		"	79.7	57.5	79.7	-22.2	YN	

WELL or DATE MW 22S

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 60.0 MSL

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
5/20/88								Developed
5/21		M-Scope	84.7	60.0	84.7	-24.7	YN	
6/2		"	84.9	60.0	84.9	-24.9	RZ	
6/10		"	85.9	60.0	85.9	-25.9	YN	
8/13		"	86.6	60.0	86.6	-26.6	JR	
9/17		"	87.4	60.0	87.4	-27.4	YN	
9/22		"	87.1	60.0	87.1	-27.1	JDZ	

WELL or DATE MW-23 S

WATER LEVEL DATA

WELL LOCATION McClellan MEASURING POINT Ground level

ELEVATION: MEASURING POINT _____ GROUND LEVEL 58.8 msl

LOCATION _____

PROJECT _____

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
5/20/82								development
5/21		M-scope	87.8	58.5	87.8	-29.3	YN	
6/8		"	87.8	58.5	87.8	-29.3	YN	
8/12		"	90.1	58.5	90.1	-31.3	JR	
9/22		"	89.9	58.5	89.9	-31.1	JDZ	

WELL or DATE MW 24S

WATER LEVEL DATA

WELL LOCATION McClellan MEASURING POINT Ground level

ELEVATION: MEASURING POINT _____ GROUND LEVEL 58.2 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
5/19/82								developed
5/21		H-Scope	87.2	58.2	87.2	-29.0	YN	
6/8		"	87.3	58.2	87.3	-29.1	YN	
8/12		"	89.8	58.2	89.8	-31.6	JR	

WELL or DATE MW 25S

WATER LEVEL DATA

WELL LOCATION McClellan MEASURING POINT Ground level

ELEVATION: MEASURING POINT _____ GROUND LEVEL 67.6 msl

LOCATION _____

PROJECT _____

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
6/7/82								developed
6/9		M-Scope	94.3	67.6	94.3	-26.7	YN	
6/15		"	94.7	67.6	94.7	-27.1	YN	
8/12		"	96.4	67.6	96.4	-28.8	JR	
9/4		"	96.6	67.6	96.6	-29.0	YN	
9/23		"	96.5	67.6	96.5	-28.9	IDZ	

WELL or DATE MW 26S

WATER LEVEL DATA

WELL LOCATION McClellan MEASURING POINT Ground level

ELEVATION: MEASURING POINT _____ GROUND LEVEL 70.5 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
5/21/82								drilled
6/8		M-Scope	96.5	70.5	96.5	-26.0	YN	
6/16		"	96.5	70.5	96.5	-26.0	YN	
8/11		"	97.5	70.5	97.5	-27.0	JR	
9/18		"	98.0	70.5	98.0	-27.5	YN	

WELL or DATE MW 27S

WATER LEVEL DATA

WELL LOCATION McClellan MEASURING POINT Ground level

ELEVATION: MEASURING POINT _____ GROUND LEVEL 71.8 msl

LOCATION _____

PROJECT _____

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
5/20/82								developed
5/21		M-Scope	95.8	71.8	95.8	-24.0	YN	
6/8		"	96.2	71.8	96.2	-24.4	YN	
6/16		"	95.1	71.8	95.1	-23.3	MM	
8/12		"	96.0	71.8	96.0	-24.2	JR	
9/4		"	96.2	71.8	96.2	-24.4	YN	
9/18		"	96.4	71.8	96.4	-24.6	YN	

WELL or DATE MW 285

WATER LEVEL DATA

WELL LOCATION McClellan MEASURING POINT Ground level

ELEVATION: MEASURING POINT _____ GROUND LEVEL 72.6 MSL

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
6/7/82								developed
6/10		M-scope	69.8	72.6	69.8	+2.8	YN	
6/16		"	70.2	72.6	70.2	+2.4	YN	silty
6/22								redeveloped
8/17		"	88.9	72.6	88.9	-16.3	JR	
9/23		"	89.0	72.6	89.0	-16.4	JDZ	

WELL or DATE MW 29S

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground Level

ELEVATION: MEASURING POINT

GROUND LEVEL 68.5 MSL

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
5/20/82								developed
5/21		M-scope	89.5	68.5	89.5	-21.0	YN	
6/8		"	89.8	68.5	89.8	-21.3	YN	
8/16		"	91.9	68.5	91.9	-23.4	JR	
9/4		"	92.1	68.5	92.1	-23.6	YN	
9/23		"	92.2	68.5	92.2	-23.7	JDZ	

WELL or DATE MW30S

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 73.0 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
6/7/82								developed
6/9		M-Scope	95.8	73.0	95.8	-22.8	YN	
8/17		"	97.1	73.0	97.1	-24.1	JR	
9/23		"	97.3	73.0	97.3	-24.3	WZ	

WELL or DATE MW315

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 65.8 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
4/2/82								destroyed
4/2		M-scope	88.8	65.8	88.8	-23.0	VN	
6/8		"	89.0	65.8	89.0	-23.2	VN	
6/15		"	89.2	65.8	89.2	-23.4	VN	
8/17		"	90.3	65.8	90.3	-24.5	JR	
9/23		"	90.8	65.8	90.8	-25.0	JDZ	

2-82

WELL or DATE MW 33 S

WATER LEVEL DATA

WELL LOCATION McClellan MEASURING POINT Ground level

ELEVATION: MEASURING POINT _____ GROUND LEVEL 58.28 msl

LOCATION _____

PROJECT _____

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
9/29/82		H-Scope	83.5	58.28	83.5	-25.2	JR	

WELL or DATE MW 34S

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 58.17 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
9/27/82		M-Scope	80.1	58.17	80.1	-21.9	JDZ	
9/28		"	80.2	58.17	80.2	-22.0	JR	

WELL or DATE MW35S

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 51.50 msL

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
8/27/82		H-Scope	74.4	51.50	74.4	-22.9	TH	
9/14		"	—	—	—		JR	Dry

2-85

WELL or DATE MW36S

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 56.14 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
9/29/82		M-Scope	83.5	56.14	83.5	-27.4	JR	

WELL or DATE MW 37S

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 60.07

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
9/15/82		M-Scope	83.1	60.07	83.1	-23.0	JR	
9/27		"	83.5	60.07	83.5	-23.4	JDZ	
9/28		"	83.6	60.07	83.6	-23.5	JR	

WELL or DATE MW39S

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 67.96 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
9/14/82		M-Scope	87.5	67.96	87.5	-19.5	JR	muddy
9/23		"	—	—		—	JDZ	dry
9/27		"	—	—		—	JR	dry

WELL or DATE MW40S

WATER LEVEL DATA

WELL LOCATION McClellan MEASURING POINT Ground level

ELEVATION: MEASURING POINT _____ GROUND LEVEL 68.80 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
9/29/82		H-Scope	97.1	68.80	97.1	-28.3	JE	

WELL or DATE MW41S

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 63.74 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
9/14/82		M-Scope	95.5	63.74	95.5	-31.8	JR	
9/22		"	95.2	63.74	95.2	-31.5	JR	

WELL or DATE MW 42S

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 56.58 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
9/15/82		M-Scope	90.1	56.58	90.1	-33.5	JR	muddy
9/27		"	89.7	56.58	89.7	-33.1	JR	"

2-91

WELL or DATE MW 43 S

WATER LEVEL DATA

WELL LOCATION McClellan MEASURING POINT Ground level

ELEVATION: MEASURING POINT _____ GROUND LEVEL 57.01 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
9/14/82		H-Scope	87.8	57.01	87.8	-30.8	JR	
9/23		"	87.6	57.01	87.6	-30.6	JDZ	

2-92

WELL or DATE MW44S

WATER LEVEL DATA

WELL LOCATION McClellan MEASURING POINT Ground level

ELEVATION: MEASURING POINT _____ GROUND LEVEL 53.79 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
9/13/82		M-Scape	78.4	53.79	78.4	-24.6	JR	
9/20		"	78.3	53.79	78.3	-24.5	YN	

WELL or DATE MW 45S

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 60.64

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
9/14/82		M-Scope	87.6	60.64	87.6	-27.0	JR	
9/17		"	87.4	60.64	87.4	-26.8	YN	

WELL or DATE MW46S

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 65.67 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
9/20/82		M-Scope	96.4	65.67	96.4	-30.7	YN	
9/29		"	96.7	65.67	96.7	-31.0	JR	

2-95

WELL or DATE MW47S

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

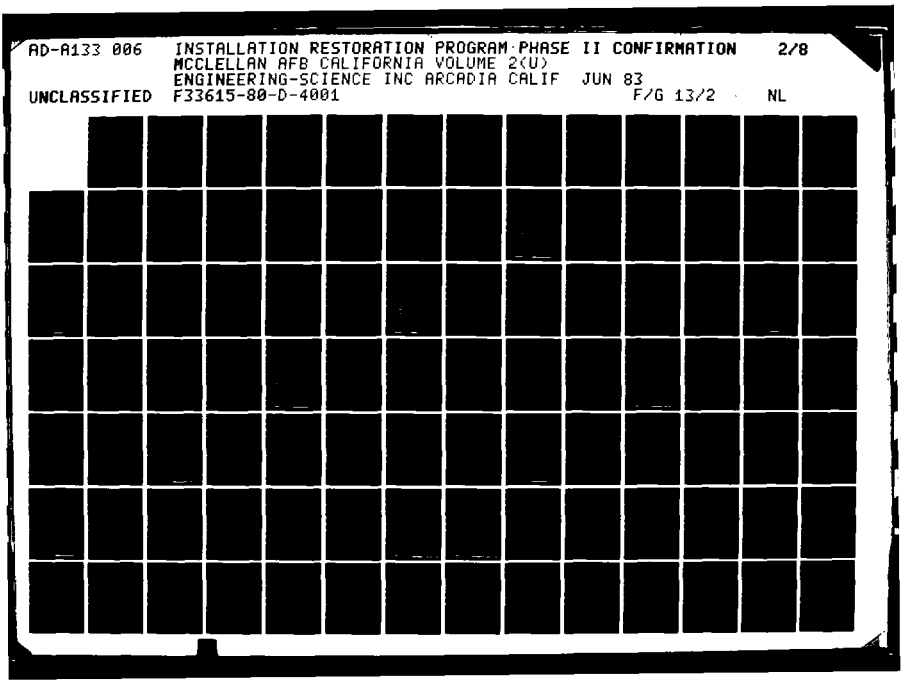
GROUND LEVEL 55.29 msl

LOCATION

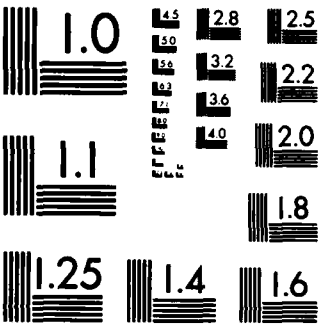
PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
9/29		M-Scope	84.0	55.29	84.0	-28.7	JR	

2-91



AD-A133 006 INSTALLATION RESTORATION PROGRAM PHASE II CONFIRMATION 2/8
MCCLELLAN AFB CALIFORNIA VOLUME 2(U)
ENGINEERING-SCIENCE INC ARCADIA CALIF JUN 83
UNCLASSIFIED F33615-80-D-4001 F/G 13/2 NL



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

WELL or DATE MW48S

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 54.23 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
9/15		M-Scope	—	54.23	—	—	JR	Dry

WELL or DATE MW49S

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 74.90

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
9/29/82		M-Scope	100.1	74.90	100.1	-25.2	JR	

WELL or DATE MW 50S

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 82.82

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
9/14/82		M-Scope	—	82.82	—	—	JR	Dry

WELL or DATE MW 16D

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 80.7' msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
6/2/82								developed.
6/10		M-Scope	99.7	80.7	99.7	-19	YN	
6/16		"	99.8	80.7	99.8	-19.1	YN	
8/17		"	102.1	80.7	102.1	-21.4	JR	
9/17		"	102.8	80.7	102.8	-22.1	YN	

WELL or DATE MW17D

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 73.3' msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
6/1/82								Developed
6/2		M-Scope	93.7	73.3	93.7	-20.4	RZ	
6/9		M-Scope	94.0	73.3	94.0	-20.7	YN	
6/16		M-Scope	94.2	73.3	94.2	-20.9	WW	
8/17		"	96.5	73.3	96.5	-23.2	JR	
9/23		"	96.7	73.3	96.7	-23.4	JDZ	

WELL or DATE MW18D

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 69.2 MSL

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
6/1/82								Developed
6/2		M-Scope	90.3	69.2	90.3	-21.1	RZ	
6/9		M-Scope	91.5	69.2	91.5	-22.3	YN	
6/15		M-Scope	91.3	69.2	91.3	-22.1	MH	
8/16		"	94.0	69.2	94.0	-24.8	JR	
9/23		"	93.8	69.2	93.8	-24.6	JDZ	

WELL or DATE MW19D

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 57.8 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
5/19/82								developed
5/20		M-scope	79.6	57.8	79.6	-21.8	YN	
5/21		M-scope	80.6	57.8	80.6	-22.8	YN	
6/9		"	80.8	57.8	80.8	-23.0	YN	
8/16		"	82.4	57.8	82.4	-24.6	JR	
9/17		"	82.5	57.8	82.5	-24.7	YN	

WELL or DATE MW20D

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 60.1 MSL

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
5/19/82								developed
5/20		H-Scope	84.2	60.1	84.2	-24.1	YN	
5/21		"	84.1	60.1	84.1	-24.0	YN	
5/25		"	84.1	60.1	84.1	-24.0	YN	hydrocarbon smell
6/8		"	84.3	60.1	84.3	-24.2	YN	hydrocarbon smell
8/11		"	86.0	60.1	86.0	-25.9	JR	
9/17		"	86.2	60.1	86.2	-26.1	YN	"

WELL or DATE MW 2-5

WATER LEVEL DATA

WELL LOCATION McClellan MEASURING POINT Ground level

ELEVATION: MEASURING POINT _____ GROUND LEVEL 57.5 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
5/12								[illegible]
6/8		M-Scope	78.6	57.5	78.6	-21.1	YN	
6/15		"	78.6	57.5	78.6	-21.1	YN	
8/13		"	80.0	57.5	80.0	-22.5	JR	
9/17		"	80.3	57.5	80.3	-22.8	YN	

WELL or DATE MW 22 I

WATER LEVEL DATA

WELL LOCATION McClellan MEASURING POINT Ground Level

ELEVATION: MEASURING POINT _____ GROUND LEVEL 60.0 MSL

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
5/20/82								12/6/2001
5/21		H-Scope	85.1	60.0	85.1	-25.1	YN	
6/2		"	85.5	60.0	85.5	-25.5	DZ	
6/2		"	86.1	60.0	86.1	-26.1	YN	
8/13		"	87.1	60.0	87.1	-27.1	JR	
9/17		"	88.4	60.0	88.4	-28.4	YN	
9/22		"	87.9	60.0	87.9	-27.9	JDZ	

WELL or DATE MW 23D

WATER LEVEL DATA

WELL LOCATION McClellan MEASURING POINT Ground Level

ELEVATION: MEASURING POINT _____ GROUND LEVEL 52.3

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
5/20/82								developed
5/21		M-Scope	90.6	58.8	90.6	-32.1	VN	
6/8		"	90.2	58.8	90.2	-31.7	VN	
8/13		"	92.1	58.8	92.1	-33.3	JR	
9/22		"	91.1	58.8	91.1	-32.3	JDZ	

WELL or DATE MW 2-1D

WATER LEVEL DATA

WELL LOCATION McClellan MEASURING POINT Ground level

ELEVATION: MEASURING POINT _____ GROUND LEVEL 52.2 MSL

LOCATION _____

PROJECT _____

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
5/19/82								developed
5/21		M-Scope	88.5	58.2	88.5	-30.4	VN	
6/8		"	90.8	58.2	90.8	-32.6	VN	
8/12		"	92.7	58.2	92.7	-34.5	JR	

WELL or DATE MW 25D

WATER LEVEL DATA

WELL LOCATION McClellan MEASURING POINT Ground Level

ELEVATION: MEASURING POINT _____ GROUND LEVEL 67.6 msl

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
6-7-82								drilled
6/8		M-Scope	94.7	67.6	94.3	-26.7	VN	
6/15		"	94.9	67.6	94.9	-27.3	VN	
8/12		"	96.8	67.6	96.8	-29.2	JR	
9/23		"	96.8	67.6	96.8	-29.2	JDZ	

WELL or DATE MW 26 D

WATER LEVEL DATA

WELL LOCATION McClellan MEASURING POINT Ground level

ELEVATION: MEASURING POINT _____ GROUND LEVEL 70.5 MSL

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
5/21/82								drilled
5/21		M-Scope	99.3	70.5	99.3	-28.8	YN	
6/2		"	99.7	70.5	99.7	-29.2	YN	
6/16		"	101.0	70.5	101.0	-30.5	YN	
8/11		"	103.7	70.5	103.7	-33.2	JR	
9/18		"	101.8	70.5	101.8	-31.3	YN	

WELL or DATE MW-27D

WATER LEVEL DATA

WELL LOCATION McClellan MEASURING POINT Ground Level

ELEVATION: MEASURING POINT _____ GROUND LEVEL 71.8 msl

LOCATION _____

PROJECT _____

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
5/20/82								Installed
5/21		M-Scope	98.0	71.8	98.0	-26.2	YN	
6/8		"	98.8	71.8	98.8	-27.0	YN	
6/16		"	99.4	71.8	99.4	-27.6	YN	
8/12		"	101.3	71.8	101.3	-29.5	JR	
9/4		"	101.5	71.8	101.5	-29.7	YN	
9/18		"	100.4	71.8	100.4	-28.6	YN	

WELL or DATE MW28D

WATER LEVEL DATA

WELL LOCATION McClellan MEASURING POINT Ground Level

ELEVATION: MEASURING POINT _____ GROUND LEVEL 72.6 MSL

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
6/7/82								developed
6/10		M-Scope	99.5	72.6	99.5	-26.9	VN	
6/16		"	98.7	72.6	98.7	-26.1	VN	
6/22								redeveloped
8/17		"	98.5	72.6	98.5	-25.9	JR	
9/23		"	98.8	72.6	98.8	-26.2	JDB	

WELL or DATE MW29D

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground surface

ELEVATION: MEASURING POINT

GROUND LEVEL 68.5 MSL

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL DEPTH	WATER LEVEL ELEVATION	BY	COMMENTS
5/20/82								developed
5/21		M-Scope	90.2	68.5	90.2	-21.7	VN	
6/8		"	90.8	68.5	90.8	-22.3	VN	
8/16		"	93.5	68.5	93.5	-25.0	JR	
9/4		"	93.8	68.5	93.8	-25.3	VN	
9/23		"	93.3	68.5	93.3	-24.8	JDZ	

WELL or DATE MW38D

WATER LEVEL DATA

WELL LOCATION McClellan

MEASURING POINT Ground level

ELEVATION: MEASURING POINT

GROUND LEVEL 55.07 MSL

LOCATION

PROJECT

WELL or DATE	TIME	MEASURING DEVICE	READING	CONVERSIONS or CORRECTIONS	WATER LEVEL		BY	COMMENTS
					DEPTH	ELEVATION		
9/27/82		M-Scope	80.2	55.07	80.2	-25.1	JR	

APPENDIX J

ANALYTICAL DATA
BASE PRODUCTION WELLS

California Analytical Laboratories, Inc.

401 NORTH 18th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14087-1

CLIENT I.D. BW1

29 January 1982 Sample

	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	24
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	23
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	1500
88V	vinyl chloride	ND

* = Less than 10 ug/L
ND = Not detected

29 January 1982

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

LIENT Engineering Science

CAL LAB NO. 14057-1

CLIENT I.D. BW1

ACID COMPOUNDS		µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

BASE/NEUTRAL COMPOUNDS		µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	hexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

AROCLOR (PCB) REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID McClellan AFB BW #1 ES ID 820124

Aliquot analyzed _____

Date Received 5 February 1982 Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ Chemist _____ Approved _____

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

No identifiable Aroclor peaks ✓

HERBICIDE REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID McClellan AFB BW #1 ES ID 820124

Aliquot analyzed _____

Date Received 5 February 1982 Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ Chemist _____ Approved _____

	Detection Limits (ppb)	Found (ppb)
2,4,D	0.001	0.04
2,4,5,T	0.001	<0.001
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

No identifiable herbicide peaks ____

64/23 9/30/82

PESTICIDE REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID Mc Clellan AFB BW #1 — ES ID 820124

Aliquot analyzed _____

Date Received 5 February 1982 — Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ — Chemist _____ — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	<0.002
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	<0.002
Chlordane	0.04	
DDD (TDE)	0.012	<0.01
DDE	0.006	
DDT	0.016	<0.02
Dieldrin	0.006	
Endosulfan I	0.005	<0.03
Endosulfan II	0.01	
Endosulfan sulfate	0.03	<0.03
Endrin	0.009	<0.009
Heptachlor	0.002	<0.002
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	

No identifiable pesticide peaks ____

64/23

9/30/82

2-119

1/11

METALS REPORT FORM

Sample ID McClellan AFB BW #1 — ES ID 820124

Aliquot analyzed _____

Date Received 5 February 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected mg/L	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	total 0.055	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.001	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

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8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.028	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

11/12/82 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-9602

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14087-2

CLIENT I.D. BW 2

	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	*
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	75
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	10
88V	vinyl chloride	ND

* = Less than 10 ug/L
ND = Not detected

1/12/82 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

LIENT Engineering Science

CAL LAB NO. 1087-2

CLIENT I.D. BW 2

ACID COMPOUNDS	µg/L
21A 2,4,6-trichlorophenol	Nd
22A p-chloro-m-cresol	Nd
24A 2-chlorophenol	Nd
31A 2,4-dichlorophenol	Nd
34A 2,4-dimethylphenol	Nd
57A 2-nitrophenol	Nd
58A 4-nitrophenol	Nd
59A 2,4-dinitrophenol	Nd
60A 4,6-dinitro-o-cresol	Nd
64A pentachlorophenol	Nd
65A phenol	Nd

BASE/NEUTRAL COMPOUNDS	µg/L
1B acenaphthene	Nd
5B benzidine	Nd
8B 1,2,4-trichlorobenzene	Nd
9B hexachlorobenzene	Nd
12B hexachloroethane	Nd
18B bis(2-chloroethyl)ether	Nd
20B 2-chloronaphthalene	Nd
25B 1,2-dichlorobenzene	Nd
26B 1,3-dichlorobenzene	Nd
27B 1,4-dichlorobenzene	Nd
28B 3,3'-dichlorobenzidine	Nd
35B 2,4-dinitrotoluene	Nd
36B 2,6-dinitrotoluene	Nd
37B 1,2-diphenylhydrazine (as azobenzene)	Nd
39B fluoranthene	Nd
40B 4-chlorophenyl phenyl ether	Nd
41B 4-bromophenyl phenyl ether	Nd
42B bis(2-chloroisopropyl)ether	Nd
43B bis(2-chloroethoxy)methane	Nd
52B bexachlorobutadiene	Nd
53B hexachlorocyclopentadiene	Nd
54B isophorone	Nd
55B naphthalene	Nd
56B nitrobenzene	Nd
61B N-nitrosodimethylamine	Nd
62B N-nitrosodiphenylamine	Nd
63B N-nitrosodi-n-propylamine	Nd
66B bis(2-ethylhexyl)phthalate	Nd
67B butyl benzyl phthalate	Nd
68B di-n-butyl phthalate	Nd
69B di-n-octyl phthalate	Nd
70B diethyl phthalate	Nd
71B dimethyl phthalate	Nd
72B benzo(a)anthracene	Nd
73B benzo(a)pyrene	Nd
74B 3,4-benzofluoranthene	Nd
75B benzo(k)fluoranthene	Nd
76B chrysene	Nd
77B acenaphthylene	Nd
78B anthracene	Nd
79B benzo(ghi)perylene	Nd
80B fluorene	Nd
81B phenanthrene	Nd
82B dibenzo(a,h)anthracene	Nd
83B indeno(1,2,3-cd)pyrene	Nd
84B pyrene	Nd

1/11

AROCLOR (PCB) REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID McClellan AFB BW #2 — ES ID 820125

Aliquot analyzed _____

Date Received 5 February 1982 — Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ — Chemist _____ — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

No identifiable Aroclor peaks ✓

HERBICIDE REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID McClellan AFB BW #2 — ES ID 820125

Aliquot analyzed _____

Date Received 5 February 1982 — Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ — Chemist _____ — Approved _____

	Detection Limits (ppb)	Found (ppb)
2,4,D	0.001	0.04
2,4,5,T	0.001	0.18
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

No identifiable herbicide peaks ____

64/23

9/30/82

8-124

PESTICIDE REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID McClellan AFB RW #2 — ES ID 820125

Aliquot analyzed _____

Date Received 5 February 1982 — Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ — Chemist _____ — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	0.12
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	0.06
Chlordane	0.04	
DDD (TDE)	0.012	<0.01
DDE	0.006	
DDT	0.016	<0.02
Dieldrin	0.006	
Endosulfan I	0.005	0.03
Endosulfan II	0.01	
Endosulfan sulfate	0.03	0.17
Endrin	0.009	<0.009
Heptachlor	0.002	0.05
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	

No identifiable pesticide peaks ____

1/11

METALS REPORT FORM

Sample ID McClellan AFB BW #2 — ES ID 220125

Aliquot analyzed _____

Date Received 5 February 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	total <0.05	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.001	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

64/18

8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.02	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

1/12/82 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14087-3

CLIENT I.D. BW 8

	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

* = Less than 10 ug/L
ND = Not detected

11/12/82 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14087-3

CLIENT I.D. BLC5

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	Nd
22A	p-chloro-m-cresol	Nd
24A	2-chlorophenol	Nd
31A	2,4-dichlorophenol	Nd
34A	2,4-dimethylphenol	Nd
57A	2-nitrophenol	Nd
58A	4-nitrophenol	Nd
59A	2,4-dinitrophenol	Nd
60A	4,6-dinitro-o-cresol	Nd
64A	pentachlorophenol	Nd
65A	phenol	Nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	Nd
5B	benzidine	Nd
8B	1,2,4-trichlorobenzene	Nd
9B	hexachlorobenzene	Nd
12B	hexachloroethane	Nd
18B	bis(2-chloroethyl)ether	Nd
20B	2-chloronaphthalene	Nd
25B	1,2-dichlorobenzene	Nd
26B	1,3-dichlorobenzene	Nd
27B	1,4-dichlorobenzene	Nd
28B	3,3'-dichlorobenzidine	Nd
35B	2,4-dinitrotoluene	Nd
36B	2,6-dinitrotoluene	Nd
37B	1,2-diphenylhydrazine (as azobenzene)	Nd
39B	fluoranthene	Nd
40B	4-chlorophenyl phenyl ether	Nd
41B	4-bromophenyl phenyl ether	Nd
42B	bis(2-chloroisopropyl)ether	Nd
43B	bis(2-chloroethoxy)methane	Nd
52B	bexachlorobutadiene	Nd
53B	hexachlorocyclopentadiene	Nd
54B	isophorone	Nd
55B	naphthalene	Nd
56B	nitrobenzene	Nd
61B	N-nitrosodimethylamine	Nd
62B	N-nitrosodiphenylamine	Nd
63B	N-nitrosodi-n-propylamine	Nd
66B	bis(2-ethylhexyl)phthalate	Nd
67B	butyl benzyl phthalate	Nd
68B	di-n-butyl phthalate	Nd
69B	di-n-octyl phthalate	Nd
70B	diethyl phthalate	Nd
71B	dimethyl phthalate	Nd
72B	benzo(a)anthracene	Nd
73B	benzo(a)pyrene	Nd
74B	3,4-benzofluoranthene	Nd
75B	benzo(k)fluoranthene	Nd
76B	chrysene	Nd
77B	acenaphthylene	Nd
78B	anthracene	Nd
79B	benzo(ghi)perylene	Nd
80B	fluorene	Nd
81B	phenanthrene	Nd
82B	dibenzo(a,h)anthracene	Nd
83B	indeno(1,2,3-cd)pyrene	Nd
84B	pyrene	Nd

1/11

AROCLOR (PCB) REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID McClellan AFB BW8 — ES ID 820126

Aliquot analyzed _____

Date Received 5 Feb 82 — Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ — Chemist _____ — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

No identifiable Aroclor peaks ✓

HERBICIDE REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID McClellan AFB BW8 — ES ID 820126

Aliquot analyzed _____

Date Received 5 Feb 82 — Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ — Chemist _____ — Approved _____

	Detection Limits (ppb)	Found (ppb)
2,4,D	0.001	0.06
2,4,5,T	0.001	0.01
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

No identifiable herbicide peaks ____

64/23

9/30/82

PESTICIDE REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID McClellan AFB BW #9 — ES ID 820126

Aliquot analyzed _____

Date Received 5 February 1982 — Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ Chemist _____ Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	0.26
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	<0.002
Chlordane	0.04	
DDD (TDE)	0.012	<0.01
DDE	0.006	
DDT	0.016	<0.02
Dieldrin	0.006	
Endosulfan I	0.005	<0.005
Endosulfan II	0.01	
Endosulfan sulfate	0.03	<0.03
Endrin	0.009	<0.009
Heptachlor	0.002	<0.002
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	

No identifiable pesticide peaks ____

1/11

METALS REPORT FORM

Sample ID McClellan AFB BW # 8 — ES ID 820126

Aliquot analyzed _____

Date Received 5 February 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 (total)	<0.05	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.001	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

64/18

8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<0.02	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

1/12/82 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0602

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14087-4

CLIENT I.D. BW 11

	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

* = Less than 10 ug/L
ND = Not detected

1/12/82 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

LIENT Engineering Science

CAL LAB NO. 14087-4

CLIENT I.D. BW 11

ACID COMPOUNDS	µg/L
21A 2,4,6-trichlorophenol	nd
22A p-chloro-m-cresol	nd
24A 2-chlorophenol	nd
31A 2,4-dichlorophenol	nd
34A 2,4-dimethylphenol	nd
57A 2-nitrophenol	nd
58A 4-nitrophenol	nd
59A 2,4-dinitrophenol	nd
60A 4,6-dinitro-o-cresol	nd
64A pentachlorophenol	nd
65A phenol	nd

BASE/NEUTRAL COMPOUNDS	µg/L
1B acenaphthene	nd
5B benzidine	nd
8B 1,2,4-trichlorobenzene	nd
9B hexachlorobenzene	nd
12B hexachloroethane	nd
18B bis(2-chloroethyl)ether	nd
20B 2-chloronaphthalene	nd
25B 1,2-dichlorobenzene	nd
26B 1,3-dichlorobenzene	nd
27B 1,4-dichlorobenzene	nd
28B 3,3'-dichlorobenzidine	nd
35B 2,4-dinitrotoluene	nd
36B 2,6-dinitrotoluene	nd
37B 1,2-diphenylhydrazine (as azobenzene)	nd
39B fluoranthene	nd
40B 4-chlorophenyl phenyl ether	nd
41B 4-bromophenyl phenyl ether	nd
42B bis(2-chloroisopropyl)ether	nd
43B bis(2-chloroethoxy)methane	nd
52B bexachlorobutadiene	nd
53B hexachlorocyclopentadiene	nd
54B isophorone	nd
55B naphthalene	nd
56B nitrobenzene	nd
61B N-nitrosodimethylamine	nd
62B N-nitrosodiphenylamine	nd
63B N-nitrosodi-n-propylamine	nd
66B bis(2-ethylhexyl)phthalate	nd
67B butyl benzyl phthalate	nd
68B di-n-butyl phthalate	nd
69B di-n-octyl phthalate	nd
70B diethyl phthalate	nd
71B dimethyl phthalate	nd
72B benzo(a)anthracene	nd
73B benzo(a)pyrene	nd
74B 3,4-benzofluoranthene	nd
75B benzo(k)fluoranthene	nd
76B chrysene	nd
77B acenaphthylene	nd
78B anthracene	nd
79B benzo(ghi)perylene	nd
80B fluorene	nd
81B phenanthrene	nd
82B dibenzo(a,h)anthracene	nd
83B indeno(1,2,3-cd)pyrene	nd
84B pyrene	nd

1/11

AROCLOR (PCB) REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID Mc Clellan AFB BW #11 — ES ID 820127

Aliquot analyzed _____

Date Received 5 February 1982 — Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ — Chemist _____ — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

No identifiable Aroclor peaks ✓

HERBICIDE REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID Mc Clellan AFB BW #11 — ES ID 820127

Aliquot analyzed _____

Date Received 5 February 1982 — Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ — Chemist _____ — Approved _____

	Detection Limits (ppb)	Found (ppb)
2,4,D	0.001	0.02
2,4,5,T	0.001	0.004
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

No identifiable herbicide peaks ____

1/11

PESTICIDE REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID McClellan AFB ES ID 820127

BW #11 Aliquot analyzed _____

Date Received 5 February 1982 Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ Chemist _____ Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	<0.002
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	0.08
Chlordane	0.04	
DDD (TDE)	0.012	0.07
DDE	0.006	
DDT	0.016	<0.02
Dieldrin	0.006	
Endosulfan I	0.005	0.09
Endosulfan II	0.01	
Endosulfan sulfate	0.03	<0.03
Endrin	0.009	<0.009
Heptachlor	0.002	<0.002
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	

No identifiable pesticide peaks ____

1/11

METALS REPORT FORM

Sample ID McClellan AFB BW # 11 — ES ID 820127

Aliquot analyzed _____

Date Received 5 February 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected mg/L	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 (total)	<0.05	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.001	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

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8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.097	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

11/2/82 samples

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-9602

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14087-5

CLIENT I.D. BW 12

	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

* = Less than 10 ug/L
ND = Not detected

1/12/82 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

LIENT Engineering Science

CAL LAB NO. 14087-5

CLIENT I.D. BW 12

ACID COMPOUNDS	µg/L
21A 2,4,6-trichlorophenol	nd
22A p-chloro-m-cresol	nd
24A 2-chlorophenol	nd
31A 2,4-dichlorophenol	nd
34A 2,4-dimethylphenol	nd
57A 2-nitrophenol	nd
58A 4-nitrophenol	nd
59A 2,4-dinitrophenol	nd
60A 4,6-dinitro-o-cresol	nd
64A pentachlorophenol	nd
65A phenol	nd

BASE/NEUTRAL COMPOUNDS	µg/L
1B acenaphthene	nd
5B benzidine	nd
8B 1,2,4-trichlorobenzene	nd
9B hexachlorobenzene	nd
12B hexachloroethane	nd
18B bis(2-chloroethyl)ether	nd
20B 2-chloronaphthalene	nd
25B 1,2-dichlorobenzene	nd
26B 1,3-dichlorobenzene	nd
27B 1,4-dichlorobenzene	nd
28B 3,3'-dichlorobenzidine	nd
35B 2,4-dinitrotoluene	nd
36B 2,6-dinitrotoluene	nd
37B 1,2-diphenylhydrazine (as azobenzene)	nd
39B fluoranthene	nd
40B 4-chlorophenyl phenyl ether	nd

BASE/NEUTRAL COMPOUNDS	µg/L
41B 4-bromophenyl phenyl ether	nd
42B bis(2-chloroisopropyl)ether	nd
43B bis(2-chloroethoxy)methane	nd
52B hexachlorobutadiene	nd
53B hexachlorocyclopentadiene	nd
54B isophorone	nd
55B naphthalene	nd
56B nitrobenzene	nd
61B N-nitrosodimethylamine	nd
62B N-nitrosodiphenylamine	nd
63B N-nitrosodi-n-propylamine	nd
66B bis(2-ethylhexyl)phthalate	nd
67B butyl benzyl phthalate	nd
68B di-n-butyl phthalate	nd
69B di-n-octyl phthalate	nd
70B diethyl phthalate	nd
71B dimethyl phthalate	nd
72B benzo(a)anthracene	nd
73B benzo(a)pyrene	nd
74B 3,4-benzofluoranthene	nd
75B benzo(k)fluoranthene	nd
76B chrysene	nd
77B acenaphthylene	nd
78B anthracene	nd
79B benzo(ghi)perylene	nd
80B fluorene	nd
81B phenanthrene	nd
82B dibenzo(a,h)anthracene	nd
83B indeno(1,2,3-cd)pyrene	nd
84B pyrene	nd

2-141

1/11

AROCLOR (PCB) REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID McClellan AFB BW #12 — ES ID 820128

Aliquot analyzed _____

Date Received 5 February 1982 — Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ — Chemist _____ — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		<0.08
Aroclor 1260		

No identifiable Aroclor peaks ____

HERBICIDE REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID McClellan AFB BW #12 — ES ID 820128

Aliquot analyzed _____

Date Received 5 February 1982 — Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ — Chemist _____ — Approved _____

	Detection Limits (ppb)	Found (ppb)
2,4,D	0.001	0.03
2,4,5,T	0.001	0.05
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

No identifiable herbicide peaks ____

2 140

PESTICIDE REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID McClellan AFB BW #12 — ES ID 820128

Aliquot analyzed

Date Received 5 February 1982 — Detector Used: Coulson, EC, Flame, PID

Date analyzed — Chemist — Approved

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	0.003
Beta BHC	0.004	<0.004
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	<0.005
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	<0.002
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	

No identifiable pesticide peaks —

1/11

METALS REPORT FORM

Sample ID McClellan AFB BW # 12 — ES ID 820128

Aliquot analyzed _____

Date Received 5 February 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	<0.05	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.001	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

64/18

8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<0.02	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

1/12/82 sample

California Analytical Laboratories, Inc.

401 NORTH 18th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0602

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14087-6

CLIENT I.D. RW 13

	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

* = Less than 10 ug/L
ND = Not detected

1/12/82 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14C87-6

CLIENT I.D. BLC-12

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	*

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	hexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

AROCLOR (PCB) REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID Mc Clellan AFB BW #13 — ES ID 820129

Aliquot analyzed _____

Date Received 5 February 1982 — Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ — Chemist _____ — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		<0.08
Aroclor 1260		

No identifiable Aroclor peaks ____

HERBICIDE REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID Mc Clellan AFB BW #13 — ES ID 820129

Aliquot analyzed _____

Date Received 5 February 1982 — Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ — Chemist _____ — Approved _____

	Detection Limits (ppb)	Found (ppb)
2,4,D	0.001	0.006
2,4,5,T	0.001	0.006
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

No identifiable herbicide peaks ____

64/23 — 9/30/82

PESTICIDE REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID McClellan AFB BW #13 — ES ID 820129

Aliquot analyzed _____

Date Received 5 February 1982 — Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ — Chemist _____ — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	0.004
Beta BHC	0.004	<0.004
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	<0.005
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	<0.002
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	

No identifiable pesticide peaks ____

1/11

METALS REPORT FORM

Sample ID McClellan AFB BW #13 — ES ID 820189

Aliquot analyzed _____

Date Received 5 February 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	total <0.05	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.001	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

64/18

8/27/82

2-150

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<0.02	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

4/12/82 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-9602

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14087-7

CLIENT I.D. 3W 17

	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

* = Less than 10 ug/L
ND = Not detected

2-152

1/12/82 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14257-7

CLIENT I.D. BW 17

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	bexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

AROCLOR (PCB) REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID McClellan AFB BW #17 — ES ID 820130

Aliquot analyzed _____

Date Received 5 February 1982 — Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ — Chemist _____ — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		<0.08
Aroclor 1260		

No identifiable Aroclor peaks ____

HERBICIDE REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID McClellan AFB BW #17 — ES ID 820130

Aliquot analyzed _____

Date Received 5 February 1982 — Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ — Chemist _____ — Approved _____

	Detection Limits (ppb)	Found (ppb)
2,4,D	0.001	<0.001
2,4,5,T	0.001	<0.001
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

No identifiable herbicide peaks ____

64/23 — 9/30/82

PESTICIDE REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID McClellan AFB BW #17 — ES ID 820130

Aliquot analyzed _____

Date Received 5 February 1982 — Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ — Chemist _____ — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	<0.002
Beta BHC	0.004	<0.004
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	0.27
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	0.04
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	

No identifiable pesticide peaks ____

1/11

METALS REPORT FORM

Sample ID McClellon AFB BW # 17 — ES ID 820130

Aliquot analyzed _____

Date Received 5 February 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected mg/L	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	total <0.05	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.001	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

64/18

8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<0.02	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

1/12/82 sample

California Analytical Laboratories, Inc.

401 NORTH 18th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-9602

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14087-8

CLIENT I.D. BW 18

	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

* = Less than 10 ug/L
ND = Not detected

11/2/82 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

LIENT Engineering Science

CAL LAB NO. 14087-8

CLIENT I.D. BW-18

ACID COMPOUNDS		µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

BASE/NEUTRAL COMPOUNDS		µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	hexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

AROCLOR (PCB) REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID Mc Clellan AFB BW #18 ES ID 820131

Aliquot analyzed _____

Date Received 5 February 1982 Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ Chemist _____ Approved _____

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		< 0.08
Aroclor 1260		

No identifiable Aroclor peaks ____

HERBICIDE REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID Mc Clellan AFB BW #18 ES ID 820131

Aliquot analyzed _____

Date Received 5 February 1982 Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ Chemist _____ Approved _____

	Detection Limits (ppb)	Found (ppb)
2,4,D	0.001	<0.001
2,4,5,T	0.001	0.003
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

No identifiable herbicide peaks ____

64/23 9/30/82

PESTICIDE REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID McClellan AFB BW #18 — ES ID 820131

Aliquot analyzed _____

Date Received 5 February 1982 — Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ — Chemist _____ — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	<0.002
Beta BHC	0.004	0.10
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	<0.005
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	<0.002
Methoxychlor	0.02	
Toxaphene	0.40	

No identifiable pesticide peaks ____

64/23

9/30/82

1/11

METALS REPORT FORM

Sample ID McClellan AFB BW #18 — ES ID 820131

Aliquot analyzed _____

Date Received 5 February 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 (total	<0.05	
Chromium (+6)	c	—	10)		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.001	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

64/18

8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<0.02	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

1/14/82 samples

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-9602

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14087-9

CLIENT I.D. BW 28

	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

* = Less than 10 ug/L
ND = Not detected

2-164

1/12/82 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

LIENT Engineering Science

CAL LAB NO. 14657-9

CLIENT I.D. BW 28

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	hexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

AROCLOR (PCB) REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID McClellan AFB BW #28 — ES ID 820132

Aliquot analyzed _____

Date Received 5 February 1982 — Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ — Chemist _____ — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		0.24
Aroclor 1260		

No identificable Aroclor peaks ____

HERBICIDE REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID McClellan AFB BW #28 — ES ID 820132

Aliquot analyzed _____

Date Received 5 February 1982 — Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ — Chemist _____ — Approved _____

	Detection Limits (ppb)	Found (ppb)
2,4,D	0.001	0.008
2,4,5;T	0.001	0.002
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

No identifiable herbicide peaks ____

64/23

9/30/82

PESTICIDE REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID McClellan AFB BW #28 ES ID 820132

Aliquot analyzed _____

Date Received 5 February 1982 Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ Chemist _____ Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	

No identifiable pesticide peaks ____

1/11

METALS REPORT FORM

Sample ID McClellan AFB
BW #28

ES ID 820132

Aliquot analyzed _____

Date Received 5 February 1982

Method Used _____

Date analyzed _____ Chemist _____ Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	---	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	---		
Chromium (+3)	p,h,c,d,o	20	1 } total	<0.05	
Chromium (+6)	c	---	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	---		
Magnesium		1	---		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	---	0.5	<0.001	
Molybdenum	c	500	---		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	---		
Selenium	p,h,c,d	---	10	<0.01	
Silicon		10	---		

64/18

8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.048	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

1/12/82 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0602

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14087-10

CLIENT I.D. BW 29

	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

* = Less than 10 ug/L
ND = Not detected

11/12/82 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

LIENT Engineering Science

CAL LAB NO. 1487-10

CLIENT I.D. BW 2

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	hexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

1/12/82 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

LIENT Engineering Science

CAL LAB NO. 176.57-10 D

CLIENT I.D. Blk 29 - Duplicate

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	hexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

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AROCLOR (PCB) REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID McClellan AFB BW #29 — ES ID 820133

Aliquot analyzed _____

Date Received 5 February 1982 — Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ — Chemist _____ — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		<0.08
Aroclor 1260		

No identifiable Aroclor peaks ____

HERBICIDE REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID McClellan AFB BW #29 — ES ID 820133

Aliquot analyzed _____

Date Received 5 February 1982 — Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ — Chemist _____ — Approved _____

	Detection Limits (ppb)	Found (ppb)
2,4,D	0.001	0.01
2,4,5,T	0.001	0.002
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

No identifiable herbicide peaks ____

64/23 — 9/30/82

PESTICIDE REPORT
ENGINEERING-SCIENCE - BERKELEY LABORATORY

Sample ID McClellan AFB ES ID 820123

BW #29 Aliquot analyzed _____

Date Received 5 February 1982 Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ Chemist _____ Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	

No identifiable pesticide peaks ____

1/11

METALS REPORT FORM

Sample ID McClellan AFB BW #29 — ES ID 820133

Aliquot analyzed _____

Date Received 5 February 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	<0.05	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.001	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

64/18

8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<0.02	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

APPENDIX K

ANALYTICAL DATA
BASE MONITORING WELLS

22 April 1982 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14428-1
CLIENT I.D. Well MW #4

	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

* = Less than 10 ug/L
ND = Not detected

3/31 sample

California Analytical Laboratories, Inc.

401 NORTH 18th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-9602

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14428-~~1AA~~-1

CLIENT I.D. Well #4

ACID COMPOUNDS	µg/L
21A 2,4,6-trichlorophenol	ND
22A p-chloro-m-cresol	ND
24A 2-chlorophenol	ND
31A 2,4-dichlorophenol	ND
34A 2,4-dimethylphenol	ND
57A 2-nitrophenol	ND
58A 4-nitrophenol	ND
59A 2,4-dinitrophenol	ND
60A 4,6-dinitro-o-cresol	ND
64A pentachlorophenol	ND
65A phenol	ND

BASE/NEUTRAL COMPOUNDS	µg/L
1B acenaphthene	ND
5B benzidine	ND
8B 1,2,4-trichlorobenzene	ND
9B hexachlorobenzene	ND
12B hexachloroethane	ND
18B bis(2-chloroethyl)ether	ND
20B 2-chloronaphthalene	ND
25B 1,2-dichlorobenzene	ND
26B 1,3-dichlorobenzene	ND
27B 1,4-dichlorobenzene	ND
28B 3,3'-dichlorobenzidine	ND
35B 2,4-dinitrotoluene	ND
36B 2,6-dinitrotoluene	ND
37B 1,2-diphenylhydrazine (as azobenzene)	ND
39B fluoranthene	ND
40B 4-chlorophenyl phenyl ether	ND

BASE/NEUTRAL COMPOUNDS	µg/L
41B 4-bromophenyl phenyl ether	ND
42B bis(2-chloroisopropyl)ether	ND
43B bis(2-chloroethoxy)methane	ND
52B bexachlorobutadiene	ND
53B hexachlorocyclopentadiene	ND
54B isophorone	ND
55B naphthalene	ND
56B nitrobenzene	ND
61B N-nitrosodimethylamine	ND
62B N-nitrosodiphenylamine	ND
63B N-nitrosodi-n-propylamine	ND
66B bis(2-ethylhexyl)phthalate	15
67B butyl benzyl phthalate	ND
68B di-n-butyl phthalate	ND
69B di-n-octyl phthalate	ND
70B diethyl phthalate	ND
71B dimethyl phthalate	ND
72B benzo(a)anthracene	ND
73B benzo(a)pyrene	ND
74B 3,4-benzofluoranthene	ND
75B benzo(k)fluoranthene	ND
76B chrysene	ND
77B acenaphthylene	ND
78B anthracene	ND
79B benzo(ghi)perylene	ND
80B fluorene	ND
81B phenanthrene	ND
82B dibenzo(a,h)anthracene	ND
83B indeno(1,2,3-cd)pyrene	ND
84B pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW #4 ES ID 422642

Aliquot analyzed 1L

Date Received 4/29-82 Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ Chemist MB Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	2.76
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	0.377
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	0.06
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

4/29

METALS REPORT FORM

Sample ID McClellan AFB MW #4 — ES ID 220642

Aliquot analyzed ____

Date Received 29 April 1982 — Method Used ____

Date analyzed ____ — Chemist ____ — Approved ____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	0.016	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	0.014	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	total 0.08	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.0007	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	0.07	
Potassium		10	—		
Selenium	p,h,c,d	—	10	0.016	
Silicon		10	—		

64/18

8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.10	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

3/31 sample

California Analytical Laboratories, Inc.

401 NORTH 18th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14428-2
CLIENT I.D. Well MW 6

	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	24
88V	vinyl chloride	ND

* = Less than 10 ug/L
ND = Not detected

3/31 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-9802

PRIORITY POLLUTANT DATA SHEET jpf

CLIENT Engineering Science

CAL LAB NO. 14428-2

CLIENT I.D. Well #6

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	bexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	16
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW Well #6 ES ID 820440

Aliquot analyzed 1 L

Date Received 4/1-82 Detector Used: Coulson, (EC) Flame, PID

Date analyzed _____ Chemist UB Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin		
Alpha BHC		
Beta BHC		
Delta BHC		
Gamma BHC (lindane)		
Chlordane		
DDD (TDE)		
DDE		
DDT		
Dieldrin		
Endosulfan I		
Endosulfan II		
Endosulfan sulfate		
Endrin		
Heptachlor	0.002	0.7C
Heptachlor epoxide		
Methoxychlor		
Toxaphene		
2,4,D	0.001	0.02
2,4,5,T	0.001	0.006
2,4,5 TP (Silvex)		
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

3/30

METALS REPORT FORM

Sample ID McClellan AFB MW #6 — ES ID 8203443

Aliquot analyzed _____

Date Received 1 April 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 total	<0.05	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	0.109	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.0005	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	0.06	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

64/18

8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.028	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

3/19 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Enyineering Science CAL LAB NO. 14365-1

CLIENT I.D. Well MW7; McClellan AFB

	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	20
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	30
88V	vinyl chloride	ND
	1,1,2-trichloro-2,2,1-trifluoroethane	ND

* = Less than 10 ug/L
ND = Not detected

21 April 1982

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14365-1

CLIENT I.D. Well #7, McClellan

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	bexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	1.2
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

3/31 Sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-9602

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14428-3
CLIENT I.D. Well #MW7

	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	26
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	29
88V	vinyl chloride	ND

* = Less than 10 ug/L
ND = Not detected

3/31 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-9602

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 144-28-3

CLIENT I.D. Well #7

ACID COMPOUNDS	µg/L
21A 2,4,6-trichlorophenol	ND
22A p-chloro-m-cresol	ND
24A 2-chlorophenol	ND
31A 2,4-dichlorophenol	ND
34A 2,4-dimethylphenol	ND
57A 2-nitrophenol	ND
58A 4-nitrophenol	ND
59A 2,4-dinitrophenol	ND
60A 4,6-dinitro-o-cresol	ND
64A pentachlorophenol	ND
65A phenol	ND

BASE/NEUTRAL COMPOUNDS	µg/L
1B acenaphthene	ND
5B benzidine	ND
8B 1,2,4-trichlorobenzene	ND
9B hexachlorobenzene	ND
12B hexachloroethane	ND
18B bis(2-chloroethyl)ether	ND
20B 2-chloronaphthalene	ND
25B 1,2-dichlorobenzene	ND
26B 1,3-dichlorobenzene	ND
27B 1,4-dichlorobenzene	ND
28B 3,3'-dichlorobenzidine	ND
35B 2,4-dinitrotoluene	ND
36B 2,6-dinitrotoluene	ND
37B 1,2-diphenylhydrazine (as azobenzene)	ND
39B fluoranthene	ND
40B 4-chlorophenyl phenyl ether	ND

BASE/NEUTRAL COMPOUNDS	µg/L
41B 4-bromophenyl phenyl ether	ND
42B bis(2-chloroisopropyl)ether	ND
43B bis(2-chloroethoxy)methane	ND
52B bexachlorobutadiene	ND
53B hexachlorocyclopentadiene	ND
54B isophorone	ND
55B naphthalene	ND
56B nitrobenzene	ND
61B N-nitrosodimethylamine	ND
62B N-nitrosodiphenylamine	ND
63B .N-nitrosodi-n-propylamine	ND
66B bis(2-ethylhexyl)phthalate	13
67B butyl benzyl phthalate	ND
68B di-n-butyl phthalate	ND
69B di-n-octyl phthalate	ND
70B diethyl phthalate	ND
71B dimethyl phthalate	ND
72B benzo(a)anthracene	ND
73B benzo(a)pyrene	ND
74B 3,4-benzofluoranthene	ND
75B benzo(k)fluoranthene	ND
76B chrysene	ND
77B acenaphthylene	ND
78B anthracene	ND
79B benzo(ghi)perylene	ND
80B fluorene	ND
81B phenanthrene	ND
82B dibenzo(a,h)anthracene	ND
83B indeno(1,2,3-cd)pyrene	ND
84B pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW Well #7 pre ES ID 82C441

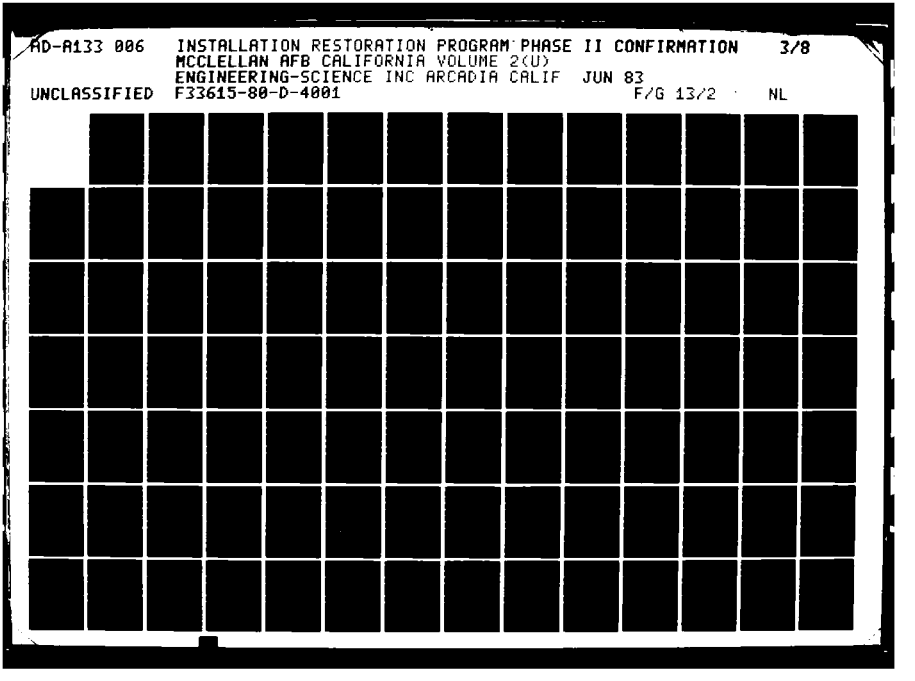
Aliquot analyzed 1L.

Date Received 4/1-82 Detector Used: Coulson (EC) Flame, PID

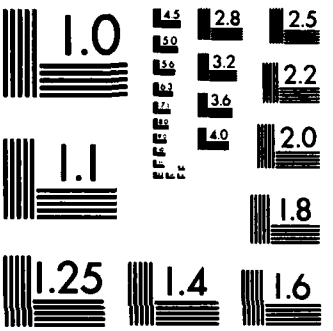
Date analyzed _____ Chemist MB Approved _____

	Detection Limits	Found (ppb)
Aldrin	0.003	0.26
Alpha BHC		
Beta BHC		
Delta BHC		
Gamma BHC (lindane)		
Chlordane		
DDD (TDE)		
DDE		
DDT		
Dieldrin		
Endosulfan I		
Endosulfan II		
Endosulfan sulfate		
Endrin		
Heptachlor		
Heptachlor epoxide		
Methoxychlor		
Toxaphene		
2,4,D		
2,4,5,T		
2,4,5 TP (Silvex)		
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY



AD-A133 006 INSTALLATION RESTORATION PROGRAM PHASE II CONFIRMATION 3/8
MCCLELLAN AFB CALIFORNIA VOLUME 2(U)
ENGINEERING-SCIENCE INC ARCADIA CALIF JUN 83
UNCLASSIFIED F33615-80-D-4001 F/G 13/2 NL



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW Well #7 post

ES ID 820442

Aliquot analyzed 1 L

Date Received 4/1-82

Detector Used: Coulson, (EC) Flame, PID

Date analyzed _____ Chemist MB Approved _____

	Detection Limits	Found (ppb)
Aldrin	0.003	1.03
Alpha BHC		
Beta BHC		
Delta BHC		
Gamma BHC (lindane)		
Chlordane		
DDD (TDE)		
DDE		
DDT		
Dieldrin		
Endosulfan I		
Endosulfan II		
Endosulfan sulfate		
Endrin		
Heptachlor	0.002	0.88
Heptachlor epoxide		
Methoxychlor		
Toxaphene		
2,4,D	0.001	0.02
2,4,5,T		
2,4,5 TP (Silvex)		
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

3/17

METALS REPORT FORM

Sample ID McClellan AFB MW# 7 (pre) — ES ID 820441

Aliquot analyzed _____

Date Received 1 April 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 (total)	0.21	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	0.081	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.0005	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	0.10	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

64/18

8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.21	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

METALS REPORT FORM

3/29

Sample ID McClellan MW #7 (post) — ES ID 820442

Aliquot analyzed ____

Date Received 1 April 1982 — Method Used ____

Date analyzed ____ — Chemist ____ — Approved ____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected ppb	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	total 0.09	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	0.023	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.0005	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

64/18 — 8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.15	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

3/31 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14428-4

CLIENT I.D. Well MW8

	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	*
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	*
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	*
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	61
88V	vinyl chloride	ND

* = Less than 10 ug/L
ND = Not detected

3/31 samples

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14428-4

CLIENT I.D. well #8 NW

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	*

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	bexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	100
67B	butyl benzyl phthalate	*
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW Well #8 ES ID E2C443

Aliquot analyzed 1C

Date Received 4/1-82 Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ Chemist MB Approved _____

	Detection Limits	Found (ppb)
Aldrin		
Alpha BHC		
Beta BHC		
Delta BHC		
Gamma BHC (lindane)	0.002	0.005
Chlordane		
DDD (TDE)		
DDE		
DDT		
Dieldrin		
Endosulfan I		
Endosulfan II		
Endosulfan sulfate		
Endrin		
Heptachlor	0.002	0.04
Heptachlor epoxide		
Methoxychlor		
Toxaphene		
2,4,D		
2,4,5,T	0.001	0.008
2,4,5 TP (Silvex)		
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

3/31

METALS REPORT FORM

Sample ID McClellan AFB MW #3 — ES ID 320443

Aliquot analyzed _____

Date Received 1 April 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected into	Limit
Aluminum		500	50		
Antimony	p,c	500	10	0.006	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	0.013	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	total 2.9	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	0.98	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.0006	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	0.08	
Potassium		10	—		
Selenium	p,h,c,d	—	10	0.027	
Silicon		10	—		

64/18

8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.96	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

3/31 sample

California Analytical Laboratories, Inc.

401 NORTH 18th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14428-5
CLIENT I.D. Well MW9

	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

* When this well was sampled, the water level was found at a depth of 4 feet from the ground surface. The well cap on the well was missed, and rainwater had entered the well

* = Less than 10 ug/L
ND = Not detected

4/29 sample

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14556-1

CLIENT I.D. MW-9

	VOLATILES	ug/L or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	25
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	20
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	225
88V	vinyl chloride	ND

ND = Not detected

3/31 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-9602

PRIORITY POLLUTANT DATA SHEET paf

CLIENT Engineering Science

CAL LAB NO. 14428-5

CLIENT I.D. Well #9 MW

ACID COMPOUNDS		µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

BASE/NEUTRAL COMPOUNDS		µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	21
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

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PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14556-1

CLIENT I.D. MW-9

ACID COMPOUNDS	ug/L
21A 2,4,6-trichlorophenol	ND
22A p-chloro-m-cresol	ND
24A 2-chlorophenol	ND
31A 2,4-dichlorophenol	ND
34A 2,4-dimethylphenol	ND
57A 2-nitrophenol	ND
58A 4-nitrophenol	ND
59A 2,4-dinitrophenol	ND
60A 4,6-dinitro-o-cresol	ND
64A pentachlorophenol	ND
65A phenol	ND

BASE/NEUTRAL COMPOUNDS	ug/L
1B acenaphthene	ND
5B benzidine	ND
8B 1,2,4-trichlorobenzene	ND
9B hexachlorobenzene	ND
12B hexachloroethane	ND
18B bis(2-chloroethyl)ether	ND
20B 2-chloronaphthalene	ND
25B 1,2-dichlorobenzene	ND
26B 1,3-dichlorobenzene	ND
27B 1,4-dichlorobenzene	ND
28B 3,3'-dichlorobenzidine	ND
35B 2,4-dinitrotoluene	ND
36B 2,6-dinitrotoluene	ND
37B 1,2-diphenylhydrazine (as azobenzene)	ND
39B fluoranthene	ND
40B 4-chlorophenyl phenyl ether	ND

BASE/NEUTRAL COMPOUNDS	ug/L
41B 4-bromophenyl phenyl ether	ND
42B bis(2-chloroisopropyl)ether	ND
43B bis(2-chloroethoxy)methane	ND
52B bexachlorobutadiene	ND
53B hexachlorocyclopentadiene	ND
54B isophorone	ND
55B naphthalene	ND
56B nitrobenzene	ND
61B N-nitrosodimethylamine	ND
62B N-nitrosodiphenylamine	ND
63B N-nitrosodi-n-propylamine	ND
66B bis(2-ethylhexyl)phthalate	ND
67B butyl benzyl phthalate	ND
68B di-n-butyl phthalate	ND
69B di-n-octyl phthalate	ND
70B diethyl phthalate	ND
71B dimethyl phthalate	ND
72B benzo(a)anthracene	ND
73B benzo(a)pyrene	ND
74B 3,4-benzofluoranthene	ND
75B benzo(k)fluoranthene	ND
76B chrysene	ND
77B acenaphthylene	ND
78B anthracene	ND
79B benzo(ghi)perylene	ND
80B fluorene	ND
81B phenanthrene	ND
82B dibenzo(a,h)anthracene	ND
83B indeno(1,2,3-cd)pyrene	ND
84B pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW Well #9 ES ID E2C444

Aliquot analyzed 1 L

Date Received 4/1-82 Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ Chemist MB Approved _____

	Detection Limits	Found (ppb)
Aldrin	0.003	0.15
Alpha BHC	0.002	0.08
Beta BHC		
Delta BHC		
Gamma BHC (lindane)	0.002	0.12
Chlordane		
DDD (TDE)		
DDE		
DDT		
Dieldrin		
Endosulfan I		
Endosulfan II		
Endosulfan sulfate		
Endrin		
Heptachlor		
Heptachlor epoxide	0.004	0.08
Methoxychlor		
Toxaphene		
2,4,D		
2,4,5,T	0.001	0.003
2,4,5 TP (Silvex)		
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW9 ES ID E20621

Aliquot analyzed 1ℓ

Date Received 4/29-E2 Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ Chemist LIB Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	0.16
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.009	
Methoxychlor	0.02	
Toxaphene	0.4	
2,4,D	0.001	
2,4,5,T	0.001	0.007
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

3/31

METALS REPORT FORM

Sample ID McClellon AFB MW#9 — ES ID 820444

Aliquot analyzed _____

Date Received 1 April 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	<0.05	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	0.29	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.0006	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

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8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.15	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

METALS REPORT FORM

Sample ID McClellan AFB mw #9 4/28 — ES ID 0621

Aliquot analyzed _____

Date Received 29 April 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	<0.05	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	0.12	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.0005	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

64/18

8/27/82

2-24

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.05	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

3/31 sample

California Analytical Laboratories, Inc.

401 NORTH 18th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14428-6
CLIENT I.D. Well #MW10

	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	17
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	19
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	500
30V	1,2-trans-dichloroethylene	15
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	140
88V	vinyl chloride	ND

* = Less than 10 ug/L
ND = Not detected

3/31 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET 1 of

CLIENT Engineering Science

CAL LAB NO. 14428-6

CLIENT I.D. well # 10 MW

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	21
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	13
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID Well MW #10 ES ID 820445

Aliquot analyzed 1l

Date Received 4/1-82 Detector Used: Coulson, (EC) Flame, PID

Date analyzed _____ Chemist LB Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	1.80
Alpha BHC		
Beta BHC		
Delta BHC		
Gamma BHC (lindane)		
Chlordane		
DDD (TDE)		
DDE		
DDT		
Dieldrin		
Endosulfan I		
Endosulfan II		
Endosulfan sulfate		
Endrin		
Heptachlor		
Heptachlor epoxide		
Methoxychlor		
Toxaphene		
2,4,D		
2,4,5,T		
2,4,5 TP (Silvex)		
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

METALS REPORT FORM

Sample ID McClellan AFB 3/30 MW #10 — ES ID 820445

Aliquot analyzed _____

Date Received 1 April 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	0.007	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	0.012	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	total 0.12	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	0.03	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.0010	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	0.10	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

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8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.073	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

3/31 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14428-7
CLIENT I.D. Well MW 11

	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	*
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	4300
13V	1,1-dichloroethane	170
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	40
29V	1,1-dichloroethylene	19,300
30V	1,2-trans-dichloroethylene	180
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	3700
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	10
86V	toluene	80
87V	trichloroethylene	2100
88V	vinyl chloride	~~ND~~ 20 ppb

* = Less than 10 ug/L
ND = Not detected

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

8/19

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15052-1

CLIENT I.D. Well MW #11

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	12,000 ✓
13V	1,1-dichloroethane	250 ✓
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	* ✓
29V	1,1-dichloroethylene	63000 ✓
30V	1,2-trans-dichloroethylene	200 ✓
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	5000 ✓
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

3/31 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
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(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

pdf

CLIENT Engineering Science

CAL LAB NO. 14428-7

CLIENT I.D. Well #11 NW

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	*
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	bexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	*
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	14
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

California Analytical Laboratories, Inc.

5995 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

8/13

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15052-1AB

CLIENT I.D. Well MW1 ✓

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	8 ✓
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	32 ✓
26B	1,3-dichlorobenzene	* ✓
27B	1,4-dichlorobenzene	10 ✓
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	hexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	25 ✓
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

PESTICIDE/HERBICIDE REPORT FORM

Sample ID Well MW #11 ES ID 820446

Aliquot analyzed 1 ℓ

Date Received 4/1-82 Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ Chemist LIB Approved _____

	Detection Limits	Found (ppb)
Aldrin		
Alpha BHC		
Beta BHC		
Delta BHC		
Gamma BHC (lindane)		
Chlordane		
DDD (TDE)		
DDE		
DDT		
Dieldrin		
Endosulfan I		
Endosulfan II		
Endosulfan sulfate		
Endrin		
Heptachlor		
Heptachlor epoxide		
Methoxychlor		
Toxaphene		
2,4,D		
2,4,5,T		
2,4,5 TP (Silvex)		
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

METALS REPORT FORM

Sample ID McClellan AFB MW # 11 3/30 ES ID 820446

Aliquot analyzed _____

Date Received 1 April 1982 Method Used _____

Date analyzed _____ Chemist _____ Approved _____

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	0.07	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	0.093	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.0021	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	0.049	
Silicon		10	—		

64/18 8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.036	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

4/29 sample

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14556-2

CLIENT I.D. MW12

	VOLATILES	ug/l or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	2700
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	4200
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	70
86V	toluene	10
87V	trichloroethylene	930
88V	vinyl chloride	ND

ND = Not detected

California Analytical Laboratories, Inc.

5886 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

8/13

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15052-2V
CLIENT I.D. Well MW2

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	520
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	2500
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	7
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	18
86V	toluene	nd
87V	trichloroethylene	160
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

4/29 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14556-2

CLIENT I.D. MW12

ACID COMPOUNDS	µg/L
21A 2,4,6-trichlorophenol	ND
22A p-chloro-m-cresol	ND
24A 2-chlorophenol	ND
31A 2,4-dichlorophenol	ND
34A 2,4-dimethylphenol	ND
57A 2-nitrophenol	ND
58A 4-nitrophenol	ND
59A 2,4-dinitrophenol	ND
60A 4,6-dinitro-o-cresol	ND
64A pentachlorophenol	ND
65A phenol	ND

BASE/NEUTRAL COMPOUNDS	µg/L
1B acenaphthene	ND
5B benzidine	ND
8B 1,2,4-trichlorobenzene	ND
9B hexachlorobenzene	ND
12B hexachloroethane	ND
18B bis(2-chloroethyl)ether	ND
20B 2-chloronaphthalene	ND
25B 1,2-dichlorobenzene	ND
26B 1,3-dichlorobenzene	ND
27B 1,4-dichlorobenzene	ND
28B 3,3'-dichlorobenzidine	ND
35B 2,4-dinitrotoluene	ND
36B 2,6-dinitrotoluene	ND
37B 1,2-diphenylhydrazine (as azobenzene)	ND
39B fluoranthene	ND
40B 4-chlorophenyl phenyl ether	ND

BASE/NEUTRAL COMPOUNDS	µg/L
41B 4-bromophenyl phenyl ether	ND
42B bis(2-chloroisopropyl)ether	ND
43B bis(2-chloroethoxy)methane	ND
52B bexachlorobutadiene	ND
53B hexachlorocyclopentadiene	ND
54B isophorone	ND
55B naphthalene	ND
56B nitrobenzene	ND
61B N-nitrosodimethylamine	ND
62B N-nitrosodiphenylamine	ND
63B N-nitrosodi-n-propylamine	ND
66B bis(2-ethylhexyl)phthalate	ND
67B butyl benzyl phthalate	ND
68B di-n-butyl phthalate	ND
69B di-n-octyl phthalate	ND
70B diethyl phthalate	ND
71B dimethyl phthalate	ND
72B benzo(a)anthracene	ND
73B benzo(a)pyrene	ND
74B 3,4-benzofluoranthene	ND
75B benzo(k)fluoranthene	ND
76B chrysene	ND
77B acenaphthylene	ND
78B anthracene	ND
79B benzo(ghi)perylene	ND
80B fluorene	ND
81B phenanthrene	ND
82B dibenzo(a,h)anthracene	ND
83B indeno(1,2,3-cd)pyrene	ND
84B pyrene	ND

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

8/13

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15052-2 ✓

CLIENT I.D. Well #12 ✓

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	12 ✓
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	hexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW 12 ES ID 820622

Aliquot analyzed 1l

Date Received 4-29-82 Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ Chemist MB Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	0.004
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

METALS REPORT FORM

Sample ID McClellan AFB MW#12 3/30 — ES ID 0622

Aliquot analyzed _____

Date Received 29 April 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	<0.05	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.0005	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

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8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.07	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

3/31 sample

California Analytical Laboratories, Inc.

401 NORTH 18th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14428 - 8

CLIENT I.D. Well MW13

	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	300
13V	1,1-dichloroethane	40
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	1100
30V	1,2-trans-dichloroethylene	80
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	1000
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	20
86V	toluene	ND
87V	trichloroethylene	1470
88V	vinyl chloride	~~ND~~ 50 ppb

* = Less than 10 ug/L
ND = Not detected

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

8/16

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15052-3
CLIENT I.D. Well MW13

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	68 ✓
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	780 ✓
30V	1,2-trans-dichloroethylene	6 ✓
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	* ✓
86V	toluene	nd
87V	trichloroethylene	230 ✓
88V	vinyl chloride	* ✓
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

3/31 sample

California Analytical Laboratories, Inc.

401 NORTH 18th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14428-8

CLIENT I.D. well #13 MW

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	3*
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	64
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

California Analytical Laboratories, Inc.

5886 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

8/10

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15052-3

CLIENT I.D. Well MW 3

	ACID COMPOUNDS	ug/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	ug/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd

	BASE/NEUTRAL COMPOUNDS	ug/L
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	bexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

PESTICIDE/HERBICIDE REPORT FORM

Sample ID Well MW #13 ES ID E20147

Aliquot analyzed 1 L

Date Received 4/1-82 Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ Chemist LHB Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin		
Alpha BHC		
Beta BHC		
Delta BHC		
Gamma BHC (lindane)		
Chlordane		
DDD (TDE)		
DDE		
DDT		
Dieldrin		
Endosulfan I		
Endosulfan II		
Endosulfan sulfate		
Endrin		
Heptachlor		
Heptachlor epoxide		
Methoxychlor		
Toxaphene		
2,4,D		
2,4,5,T	0.001	0.009
2,4,5 TP (Silvex)		
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

METALS REPORT FORM

Sample ID McClellan AFB MW# 13 3/30 ES ID 820447

Aliquot analyzed _____

Date Received 1 April 1982 Method Used _____

Date analyzed _____ Chemist _____ Approved _____

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 (total)	<0.05	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	0.022	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.0010	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

64/18 8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.02	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

3/31 sample

California Analytical Laboratories, Inc.

401 NORTH 18th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14428-9
CLIENT I.D. Well MW14

	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	*
6V	carbon tetrachloride	ND
7V	chlorobenzene	*
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	8700
13V	1,1-dichloroethane	110
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	120
29V	1,1-dichloroethylene	4600
30V	1,2-trans-dichloroethylene	130
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	3000
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	50
87V	trichloroethylene	5800
88V	vinyl chloride	ND 25 ppb

* = Less than 10 ug/L
ND = Not detected

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

8/18

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15052-4

CLIENT I.D. Well 14 MW

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	2300 J
13V	1,1-dichloroethane	100 J
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	* J
29V	1,1-dichloroethylene	17000 J
30V	1,2-trans-dichloroethylene	200 J
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	11,000 J
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

3/31 sample

California Analytical Laboratories, Inc.

401 NORTH 18th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-9602

PRIORITY POLLUTANT DATA SHEET jpl

CLIENT Engineering Science

CAL LAB NO. 14428-9

CLIENT I.D. well #14 mw

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	19
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	*

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	22
26B	1,3-dichlorobenzene	*
27B	1,4-dichlorobenzene	*
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	11
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

California Analytical Laboratories, Inc.

5985 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

8/13

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15052-4AB

CLIENT I.D. Well 14 mw ✓

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	94 ✓
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	400 ✓

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	6 ✓
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	100 ✓
26B	1,3-dichlorobenzene	28 ✓
27B	1,4-dichlorobenzene	40 ✓
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	hexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	* ✓
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

PESTICIDE/HERBICIDE REPORT FORM

Sample ID Well MW #14 ES ID 820448

Aliquot analyzed 1 ℓ

Date Received 4/1-82 Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ Chemist MB Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	6.97
Alpha BHC		
Beta BHC		
Delta BHC		
Gamma BHC (lindane)		
Chlordane		
DDD (TDE)		
DDE		
DDT		
Dieldrin		
Endosulfan I		
Endosulfan II		
Endosulfan sulfate		
Endrin		
Heptachlor		
Heptachlor epoxide		
Methoxychlor		
Toxaphene		
2,4,D		
2,4,5,T	0.001	0.005
2,4,5 TP (Silvex)		
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

METALS REPORT FORM

Sample ID McClellan AFB MW# 14 3/30 — ES ID 820447

Aliquot analyzed _____

Date Received 1 April 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	total 0.09	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	0.057	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.0011	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

64/18

8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.02	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

4/29 sample

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14556-3

CLIENT I.D. MW 15

	VOLATILES	(ug/l) or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	680
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	2200
13V	1,1-dichloroethane	225
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	20
29V	1,1-dichloroethylene	5980
30V	1,2-trans-dichloroethylene	135
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	5000
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	2800
88V	vinyl chloride	ND

ND = Not detected

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

8/18

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15052-5
CLIENT I.D. MW-15

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	10 ✓
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	2500 ✓
13V	1,1-dichloroethane	200 ✓
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	40 ✓
29V	1,1-dichloroethylene	9600 ✓
30V	1,2-trans-dichloroethylene	110 ✓
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	3000 ✓
88V	vinyl chloride	*
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

4/29 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-9802

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14556-3

CLIENT I.D. MW 15

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	bexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

California Analytical Laboratories, Inc.

5995 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

8/18

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15052-5

CLIENT I.D. Well #15

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	50
26B	1,3-dichlorobenzene	8
27B	1,4-dichlorobenzene	12
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	bexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW 15 ES ID E2C627

Aliquot analyzed 1L

Date Received 4/29-82 Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ Chemist LIB Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.4	
2,4,D	0.001	0.02
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	0.36
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

METALS REPORT FORM

Sample ID McClellon AFB MW#15 3/30 — ES ID 0627

Aliquot analyzed _____

Date Received 29 April 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	0.006	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	0.012*	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	<0.05	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.0005	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	0.07	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

*Average of quality assurance duplicates.

64/18 — 8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<0.05	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

APPENDIX L

ANALYTICAL DATA
STAGE I MONITORING WELLS

STAGE I SHALLOW WELLS

6/16 sample

California Analytical Laboratories, Inc.

5886 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14772-6
CLIENT I.D. SPW 165

	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	nd
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

S/1

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15052-6
CLIENT I.D. Well J 16 5

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	10 ✓
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	10 ✓
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/l
ND = Not detected

6/10 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET 1 of

CLIENT Engineering Science

CAL LAB NO. 14772-6

CLIENT I.D. MW/65

ACID COMPOUNDS	µg/L
21A 2,4,6-trichlorophenol	nd
22A p-chloro-m-cresol	nd
24A 2-chlorophenol	nd
31A 2,4-dichlorophenol	nd
34A 2,4-dimethylphenol	nd
57A 2-nitrophenol	nd
58A 4-nitrophenol	nd
59A 2,4-dinitrophenol	nd
60A 4,6-dinitro-o-cresol	nd
64A pentachlorophenol	nd
65A phenol	nd

BASE/NEUTRAL COMPOUNDS	µg/L
1B acenaphthene	nd
5B benzidine	nd
8B 1,2,4-trichlorobenzene	nd
9B hexachlorobenzene	nd
12B hexachloroethane	nd
18B bis(2-chloroethyl)ether	nd
20B 2-chloronaphthalene	nd
25B 1,2-dichlorobenzene	nd
26B 1,3-dichlorobenzene	nd
27B 1,4-dichlorobenzene	nd
28B 3,3'-dichlorobenzidine	nd
35B 2,4-dinitrotoluene	nd
36B 2,6-dinitrotoluene	nd
37B 1,2-diphenylhydrazine (as azobenzene)	nd
39B fluoranthene	nd
40B 4-chlorophenyl phenyl ether	nd
41B 4-bromophenyl phenyl ether	nd
42B bis(2-chloroisopropyl)ether	nd
43B bis(2-chloroethoxy)methane	nd
52B hexachlorobutadiene	nd
53B hexachlorocyclopentadiene	nd
54B isophorone	nd
55B naphthalene	nd
56B nitrobenzene	nd
61B N-nitrosodimethylamine	nd
62B N-nitrosodiphenylamine	nd
63B N-nitrosodi-n-propylamine	nd
66B bis(2-ethylhexyl)phthalate	nd
67B butyl benzyl phthalate	nd
68B di-n-butyl phthalate	nd
69B di-n-octyl phthalate	nd
70B diethyl phthalate	nd
71B dimethyl phthalate	nd
72B benzo(a)anthracene	nd
73B benzo(a)pyrene	nd
74B 3,4-benzofluoranthene	nd
75B benzo(k)fluoranthene	nd
76B chrysene	nd
77B acenaphthylene	nd
78B anthracene	nd
79B benzo(ghi)perylene	nd
80B fluorene	nd
81B phenanthrene	nd
82B dibenzo(a,h)anthracene	nd
83B indeno(1,2,3-cd)pyrene	nd
84B pyrene	nd

California Analytical Laboratories, Inc.

5806 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

8/17

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15052-6

CLIENT I.D. Well 165 ✓

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	hexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

PESTICIDE/HERBICIDE REPORT FORM

Sample ID mw 16.5 ES ID E20799

6/16-82 Aliquot analyzed 1l

Date Received 6-24-82 Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ Chemist MB Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	0.503
Alpha BHC	0.002	
Beta BHC	0.004	0.142
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	0.058
2,4,5,T	0.001	0.020
2,4,5 TP (Silvex)	0.002	0.094
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB Well #165 — ES ID 820949

Aliquot analyzed 1L

Date Received 18 August 1982 — Detector Used: Coulson, (EC) Flame, PID

Date analyzed 27 Aug 82 — Chemist HF — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	0.024
Beta BHC	0.004	0.009
Delta BHC	0.004	0.025
Gamma BHC (lindane)	0.002	0.020
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	<0.03
Endrin	0.009	
Heptachlor	0.002	0.015
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

no identifiable herbicides

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW #165

ES ID 820949

Aliquot Analyzed 1 l

Date Received 18 August 1982

Detector Used: (EC) Coulson, Flame, PID

Date Analyzed 27 August 1982

Chemist HF

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB MW# 16S — ES ID 820799

Aliquot analyzed ____

Date Received 24 June 1982 — Method Used ____

Date analyzed ____ — Chemist ____ — Approved ____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected µg/ℓ	Limit
Aluminum		500	50		
Antimony	p,c	500	10	0.008	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	<0.05	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.0027	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

64/18

8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<0.02	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

6/16 sample

California Analytical Laboratories, Inc.

5995 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14772-5
CLIENT I.D. MW175

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	nd
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

8/17

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15052-8
CLIENT I.D. 175

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	nd
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

6/16/82 [illegible]

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET pf

CLIENT Engineering Science

CAL LAB NO. 14772-5

CLIENT I.D. MW175

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	hexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

California Analytical Laboratories, Inc.

5985 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

8/17

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15052-8

CLIENT I.D. Well 175 ✓

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	bexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	22 ✓
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

PESTICIDE/HERBICIDE REPORT FORM

Sample ID mw 175 6/16-82

ES ID 8C05C1

Aliquot analyzed 1l.

Date Received 6/24-82

Detector Used: Coulson, EC, Flame, PID

Date analyzed

Chemist MB

Approved

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	0.112
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	0.114
2,4,5,T	0.001	0.031
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB Well # 175 — ES ID 820951

Aliquot analyzed 1 l

Date Received 18 August 1982 — Detector Used: Coulson, (EC,) Flame, PID

Date analyzed 31 Aug 82 — Chemist HF — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

no identifiable pesticide peaks

no identifiable herbicide peaks

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW #17S

ES ID 820951

Aliquot Analyzed 1L

Date Received 18 August 1982

Detector Used: (EC), Coulson, Flame, PID

Date Analyzed 31 August 1982

Chemist HF

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB MW #17S — ES ID 820801

Aliquot analyzed ____

Date Received 24 June 1982 — Method Used ____

Date analyzed ____ — Chemist ____ — Approved ____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	0.011	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	<0.05	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.0012	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

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8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<0.02	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

6/16/82
sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
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PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14772-2
CLIENT I.D. MW 18S

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	nd
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

California Analytical Laboratories, Inc.

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(916) 381-5105

8/16

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15052-10
CLIENT I.D. 185

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	nd
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

6/16 sample

California Analytical Laboratories, Inc.

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PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14772-2

CLIENT I.D. MW185

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
54A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
18	acenaphthene	nd
58	benzidine	nd
88	1,2,4-trichlorobenzene	nd
98	hexachlorobenzene	nd
128	hexachloroethane	nd
188	bis(2-chloroethyl)ether	nd
208	2-chloronaphthalene	nd
258	1,2-dichlorobenzene	nd
268	1,3-dichlorobenzene	nd
278	1,4-dichlorobenzene	nd
288	3,3'-dichlorobenzidine	nd
358	2,4-dinitrotoluene	nd
368	2,6-dinitrotoluene	nd
378	1,2-diphenylhydrazine (as azobenzene)	nd
398	fluoranthene	nd
408	4-chlorophenyl phenyl ether	nd
418	4-bromophenyl phenyl ether	nd
428	bis(2-chloroisopropyl)ether	nd
438	bis(2-chloroethoxy)methane	nd
528	hexachlorobutadiene	nd
538	hexachlorocyclopentadiene	nd
548	isophorone	nd
558	naphthalene	nd
568	nitrobenzene	nd
618	N-nitrosodimethylamine	nd
628	N-nitrosodiphenylamine	nd
638	N-nitrosodi-n-propylamine	nd
668	bis(2-ethylhexyl)phthalate	nd
678	butyl benzyl phthalate	nd
688	di-n-butyl phthalate	nd
698	di-n-octyl phthalate	nd
708	diethyl phthalate	nd
718	dimethyl phthalate	nd
728	benzo(a)anthracene	nd
738	benzo(a)pyrene	nd
748	3,4-benzofluoranthene	nd
758	benzo(k)fluoranthene	nd
768	chrysene	nd
778	acenaphthylene	nd
788	anthracene	nd
798	benzo(ghi)perylene	nd
808	fluorene	nd
818	phenanthrene	nd
828	dibenzo(a,h)anthracene	nd
838	indeno(1,2,3-cd)pyrene	nd
848	pyrene	nd

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8/16

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15052-10

CLIENT I.D. WellH85 ✓

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	16 ✓
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	bexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	8 ✓
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW 185 — ES ID 820798

6/15-82 — Aliquot analyzed 1L

Date Received 6/24-82 — Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ — Chemist MB — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	0.052
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.4	
2,4,D	0.001	0.13E
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB ES ID 820953

Well # 1ES Aliquot analyzed 1L

Date Received 18 August 1982 Detector Used: Coulson, (EC) Flame, PID

Date analyzed 26 Aug 82 Chemist HF Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	0.032
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	0.036
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	0.027
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

no identifiable herbicide peaks

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW # 185 — ES ID 820953

Aliquot Analyzed

Date Received 18 August 1982 — Detector Used: (EC) Coulson, Flame, PID

Date Analyzed 26 August 1982 — Chemist HF — Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB MW #18S — ES ID 820798

Aliquot analyzed

Date Received 24 June 1982 — Method Used

Date analyzed — Chemist — Approved

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 (total)	<0.05	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.0016	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

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8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<0.02	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

8/16

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15052-11
CLIENT I.D. Well 195

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	*
86V	toluene	nd
87V	trichloroethylene	nd
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

4/29 conc'd

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PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14537-6MB

CLIENT I.D. MW 2B 195

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
8	acenaphthene	ND
58	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

California Analytical Laboratories, Inc.

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8/16

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15052-11
CLIENT I.D. Well 195 ✓

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	7 ✓
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	bexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	20 ✓
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW 19S — ES ID E2C64C

Aliquot analyzed 1l

Date Received 4/29-5-2 — Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ — Chemist MB — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	0.047
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	0.20
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	-
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB ES ID E20955

Well# 195 Aliquot analyzed 1ℓ

Date Received 18 August 1982 Detector Used: Coulson, (EC), Flame, PID

Date analyzed 31 Aug 82 Chemist HF Approved

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	~~DDT~~ 0.056
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

no identifiable herbicide peaks

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW #195

ES ID 820955

Aliquot Analyzed 1L

Date Received 18 August 1982

Detector Used: (EC), Coulson, Flame, PID

Date Analyzed 31 August 1982

Chemist HF

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

4/28

METALS REPORT FORM

Sample ID Mc Clellan AFB
MW # 195

ES ID 820640

Aliquot analyzed _____

Date Received 29 April 1982

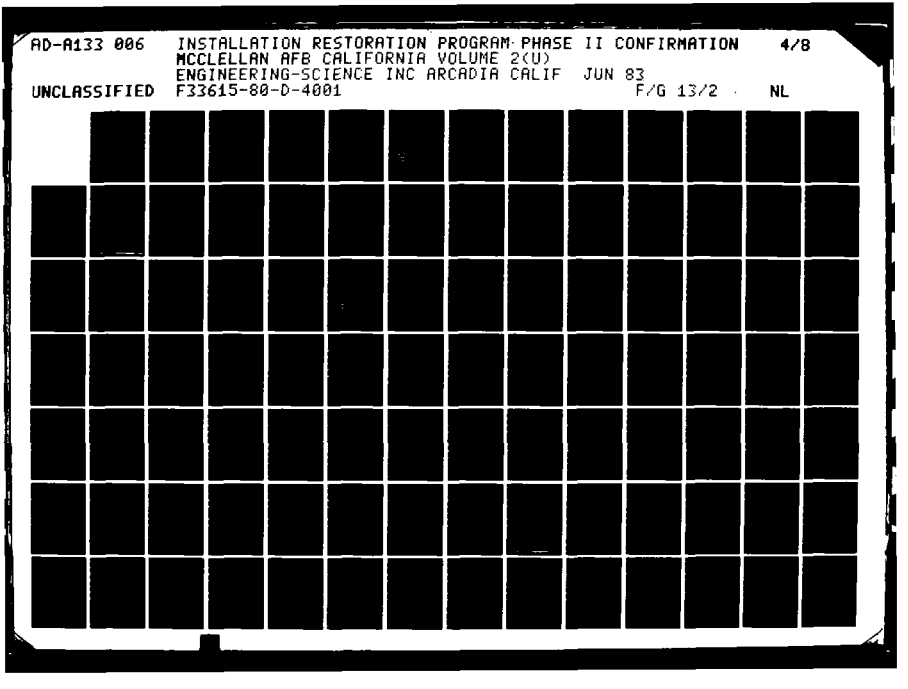
Method Used _____

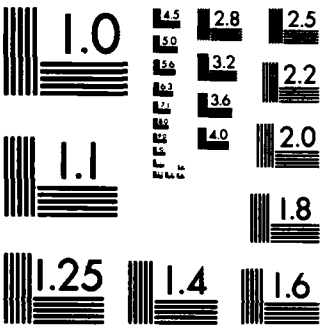
Date analyzed _____ Chemist _____ Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected mg/L	Limit
Aluminum		500	50		
Antimony	p,c	500	10	0.06	
Arsenic	p,h,c,d,o	—	10	0.66	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	0.45	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	4.17	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	1.18	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	0.08	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.0016	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	1.33	
Potassium		10	—		
Selenium	p,h,c,d	—	10	0.355	
Silicon		10	—		

64/18 8/27/82

2-288


AD-A133 006 INSTALLATION RESTORATION PROGRAM PHASE II CONFIRMATION 4/8
MCCLELLAN AFB CALIFORNIA VOLUME 2(U)
ENGINEERING-SCIENCE INC ARCADIA CALIF JUN 83
UNCLASSIFIED F33615-80-D-4001 F/G 13/2 NL



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	1.75	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

4/29 sample

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14556-7

CLIENT I.D. MW 20 S

	VOLATILES	ug/L or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	*
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

6/7/82 sample

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14723-15

CLIENT I.D. M.W. 20 5

	VOLATILES	ug/L or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	45
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	220
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	440
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

S13

CLIENT: ENGINEERING SCIENCE

CAL LAB NO. 15015-1
CLIENT I.D.: 20S

PP#	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1,-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	5 ✓
87V	trichloroethylene	ND
88V	vinyl chloride	ND

* less than 10ug/L
ND= not detected

COMMENTS:

California Analytical Laboratories, Inc.

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6/7/82 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14728-2

CLIENT I.D. 225 205

ACID COMPOUNDS * see cover letter!	µg/L
21A 2,4,6-trichlorophenol	ND
22A p-chloro-m-cresol	ND
24A 2-chlorophenol	ND
31A 2,4-dichlorophenol	ND
34A 2,4-dimethylphenol	ND
57A 2-nitrophenol	ND
58A 4-nitrophenol	ND
59A 2,4-dinitrophenol	ND
60A 4,6-dinitro-o-cresol	ND
64A pentachlorophenol	ND
65A phenol	ND

BASE/NEUTRAL COMPOUNDS * see cover letter!	µg/L
18 acenaphthene	ND
58 benzidine	ND
88 1,2,4-trichlorobenzene	ND
98 hexachlorobenzene	ND
128 hexachloroethane	ND
168 bis(2-chloroethyl)ether	ND
208 2-chloronaphthalene	ND
258 1,2-dichlorobenzene	ND
268 1,3-dichlorobenzene	ND
278 1,4-dichlorobenzene	ND
288 3,3'-dichlorobenzidine	ND
358 2,4-dinitrotoluene	ND
368 2,6-dinitrotoluene	ND
378 1,2-diphenylhydrazine (as azobenzene)	ND
398 fluoranthene	ND
408 4-chlorophenyl phenyl ether	ND

BASE/NEUTRAL COMPOUNDS	µg/L
418 4-bromophenyl phenyl ether	ND
428 bis(2-chloroisopropyl)ether	ND
438 bis(2-chloroethoxy)methane	ND
528 hexachlorobutadiene	ND
538 hexachlorocyclopentadiene	ND
548 isophorone	ND
558 naphthalene	ND
568 nitrobenzene	ND
618 N-nitrosodimethylamine	ND
628 N-nitrosodiphenylamine	ND
638 N-nitrosodi-n-propylamine	ND
668 bis(2-ethylhexyl)phthalate	ND
678 butyl benzyl phthalate	ND
688 di-n-butyl phthalate	ND
698 di-n-octyl phthalate	ND
708 diethyl phthalate	ND
718 dimethyl phthalate	ND
728 benzo(a)anthracene	ND
738 benzo(a)pyrene	ND
748 3,4-benzofluoranthene	ND
758 benzo(k)fluoranthene	ND
768 chrysene	ND
778 acenaphthylene	ND
788 anthracene	ND
798 benzo(ghi)perylene	ND
808 fluorene	ND
818 phenanthrene	ND
828 dibenzo(a,h)anthracene	ND
838 indeno(1,2,3-cd)pyrene	ND
848 pyrene	ND

PAUL A. TAYLOR, Ph.D.
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California Analytical Laboratories, Inc.

3685 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 391-5105

8111

PRIORITY POLLUTANT DATA SUMMARY SHEET

CAL LAB NO. 15015-1
CLIENT: ENGINEERING SCIENCE CLIENT I.D.: WELL 20S

ACID COMPOUNDS

21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

BASE/NEUTRAL COMPOUNDS

1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzene	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

BASE/NEUTRAL COMPOUNDS

41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	90
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	220
79B	benzo(ghi)perylene	ND
80B	fluorene	90
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

* = less than a detection limit of 200 ug/L
ND = not detected

2-2-84

PESTICIDE/HERBICIDE REPORT FORM

Sample ID M.W. Well 205 5/25-82

ES ID 820775

Aliquot analyzed 1l

Date Received 6/4-82

Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____

Chemist LIB

Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	0.008
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB Well #205 — ES ID E2C925

Aliquot analyzed 1 l

Date Received 11 Aug 82 — Detector Used: Coulson, (EC), Flame, PID

Date analyzed 15 Sept 82 — Chemist HF — Approved ____

	Detection Limits	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	0.13
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

no identifiable pesticide peaks

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW # 20 S

ES ID 820825

Aliquot Analyzed 1L

Date Received 11 August 1982

Detector Used: (EC), Coulson, Flame, PID

Date Analyzed 15 September 1982 Chemist HF Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB MW #305 — ES ID 820775

Aliquot analyzed ____

Date Received 8 June 1982 — Method Used ____

Date analyzed ____ — Chemist ____ — Approved ____

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected ug/L	Limit
Aluminum		500	50		
Antimony	p,c	500	10	0.026	
Arsenic	p,h,c,d,o	—	10	0.24	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	0.02	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	<0.05	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.0005	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.18	
Potassium		10	—		
Selenium	p,h,c,d	—	10	0.074	
Silicon			—		

64/18

8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<0.02	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

6/16 sample

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14772-03
CLIENT I.D. MW21S

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	nd
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

2-300

CLIENT: ENGINEERING SCIENCE

CAL LAB NO. 15031-2
CLIENT I.D.: #21 S

PP#	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1,-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

* less than 10ug/L
ND= not detected

COMMENTS:

6/16 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET 1 of

CLIENT Engineering Science

CAL LAB NO. 1477-13

CLIENT I.D. MW 215

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	bexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	230
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

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California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

8/13

PRIORITY POLLUTANT DATA SUMMARY SHEET

CLIENT: ENGINEERING SCIENCE

CAL LAB NO. 15031-2
CLIENT I.D.: # 21 S ✓

	ACID COMPOUNDS	ug/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzene	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

* = less than a detection limit of 10 ug/L
ND = not detected

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW-21S 6/15-EZ

ES ID EZCEC4

Aliquot analyzed 1l

Date Received 6/24-EZ

Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ Chemist MB Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	0.049
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	0.011
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	0.122
2,4,5,T	0.001	0.087
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB — ES ID E20929

Well #21S — Aliquot analyzed 1L

Date Received 13 Aug 82 — Detector Used: Coulson, (EC) Flame, PID

Date analyzed 27 Aug 82 — Chemist HF — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	0.048
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	0.007
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

no identifiable herbicides

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW # 21 S

ES ID 820929

Aliquot Analyzed 1L

Date Received 13 August 1982

Detector Used: (EC) Coulson, Flame, PID

Date Analyzed 27 August 1982 Chemist HF Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB MW #215 — ES ID 820804

Aliquot analyzed _____

Date Received 24 June 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 total	<0.05	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.0014	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

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8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<0.02	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

6/7/82 sample

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14728-16

CLIENT I.D. M.W. 22S

	VOLATILES	(ug/l) or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	8
88V	vinyl chloride	ND

ND = Not detected

CLIENT: ENGINEERING SCIENCE

CAL LAB NO. 15031-3
CLIENT I.D.: #22 S

PP#	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1,-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	6 ✓
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	16 ✓
88V	vinyl chloride	ND

* less than 10ug/L
ND= not detected

COMMENTS:

6 July 1982

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14225-1

CLIENT I.D. 208 325

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

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SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

8/13

PRIORITY POLLUTANT DATA SUMMARY SHEET

CAL LAB NO. 15031-3 ✓
CLIENT: ENGINEERING SCIENCE CLIENT I.D.: #22 S ✓

	ACID COMPOUNDS	ug/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	15 ✓
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzene	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	9 ✓
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

* = less than a detection limit of 10 ug/L
ND = not detected

PESTICIDE/HERBICIDE REPORT FORM

Sample ID m.w. Well #225 6/3-82

ES ID 820776

Aliquot analyzed 1l

Date Received _____

Detector Used: Coulson, EC, Flame, PID

Date analyzed _____

Chemist MB

Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	0.083
Gamma BHC (lindane)	0.002	0.064
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	0.026
2,4,5,T	0.001	0.003
2,4,5 TP (Silvex)	0.002	0.031
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB ES ID 820931

Well # 22S Aliquot analyzed 1l

Date Received 13 August 82 Detector Used: Coulson, (EC) Flame, PID

Date analyzed 27 Aug 82 Chemist HF Approved

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	0.057
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

no identifiable herbicide peaks

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW # 22S

ES ID 820931

Aliquot Analyzed 1L

Date Received 13 August 1982

Detector Used: (EC), Coulson, Flame, PID

Date Analyzed 27 August 1982

Chemist HF

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB MW #225 — ES ID 220776

Aliquot analyzed ____

Date Received 8 June 1982 — Method Used ____

Date analyzed ____ — Chemist ____ — Approved ____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	0.03	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	<0.05	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.0005	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.18	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

64/18

8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<0.02	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

4/29 sample

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14537-11

CLIENT I.D. MW 23S

	VOLATILES	ug/l or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

CLIENT: ENGINEERING SCIENCE

CAL LAB NO. 15031-5
CLIENT I.D.: #23 S

PP#	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1,-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

* less than 10ug/L
ND= not detected

COMMENTS:

4/29 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0822

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14552-11413

CLIENT I.D. MW 23S

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PAUL A. TAYLOR, Ph.D.
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California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

8/13

PRIORITY POLLUTANT DATA SUMMARY SHEET

CLIENT: ENGINEERING SCIENCE

CAL LAB NO. 15031-5 ✓
CLIENT I.D.: # 23 S ✓

	ACID COMPOUNDS	ug/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzene	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

* = less than a detection limit of 10 ug/L
ND = not detected

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW 23S

ES ID 820629

SAMPLE HELD PAST EXPIRATION DATE

Aliquot analyzed 1l

Date Received 4/29-82

Detector Used: Coulson, EC, Flame, PID

Date analyzed [illegible]

Chemist MB

Approved

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID Well #23S — ES ID E20933

McClellan AFB — Aliquot analyzed 1L

Date Received 13August82 — Detector Used: Coulson, (EC) Flame, PID

Date analyzed 31 Aug 82 — Chemist HF — Approved _____

	Detection Limits (PPB)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	0.034
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

no identifiable herbicide peaks

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW #33S

ES ID 820933

Aliquot Analyzed 1L

Date Received 13 August 1982

Detector Used: (EC), Coulson, Flame, PID

Date Analyzed 31 August 1982

Chemist HF

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB MW #735 — ES ID 0629

Aliquot analyzed ____

Date Received 29 April 1982 — Method Used ____

Date analyzed ____ — Chemist ____ — Approved ____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	0.025	
Arsenic	p,h,c,d,o	—	10	0.30	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	1.04	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	0.33	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	0.026	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.0009	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	0.41	
Potassium		10	—		
Selenium	p,h,c,d	—	10	0.057	
Silicon		10	—		

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8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	11.4	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

4/28 sample

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14545-1

CLIENT I.D. MW 24S

	VOLATILES	ug/L or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

California Analytical Laboratories, Inc.

8/12

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15023-2

CLIENT I.D. #245

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	nd
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

30 June 1982

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14575-1

CLIENT I.D. MW 24S

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
18	acenaphthene	ND
58	benzidine	ND
88	1,2,4-trichlorobenzene	ND
98	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

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PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15023-2
CLIENT I.D. 24 S ✓

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	260 ✓
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	bexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MLL 245 — SAMPLE HELD PAST EXPIRATION DATE — ES ID E2C631

Aliquot analyzed 1l.

Date Received 4/29-82 — Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ — Chemist MB — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB Well # 24S

ES ID E20935

Aliquot analyzed 1l

Date Received _____

Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ Chemist HF Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	0.027
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

no identifiable pesticide peaks

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW #245

ES ID 820935

Aliquot Analyzed 1l

Date Received

Detector Used: (EC), Coulson, Flame, PID

Date Analyzed

Chemist HF

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB MW #245 — ES ID 0631

Aliquot analyzed

Date Received 29 April 1982 — Method Used

Date analyzed — Chemist — Approved

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	0.008	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	total <0.05	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.0016	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

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8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.04	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

6/16 Lavelle

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 391-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14772-12
CLIENT I.D. MW25S

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	50
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15023-3
CLIENT I.D. 255

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	nd
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

6/16 cancel

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET jf

CLIENT Engineering Science

CAL LAB NO. 14772-12

CLIENT I.D. MW255

ACID COMPOUNDS	µg/L
21A 2,4,6-trichlorophenol	nd
22A p-chloro-m-cresol	nd
24A 2-chlorophenol	nd
31A 2,4-dichlorophenol	nd
34A 2,4-dimethylphenol	nd
57A 2-nitrophenol	nd
58A 4-nitrophenol	nd
59A 2,4-dinitrophenol	nd
60A 4,6-dinitro-o-cresol	nd
64A pentachlorophenol	nd
65A phenol	nd

BASE/NEUTRAL COMPOUNDS	µg/L
8 acenaphthene	nd
58 benzidine	nd
8B 1,2,4-trichlorobenzene	nd
9B hexachlorobenzene	nd
12B hexachloroethane	nd
18B bis(2-chloroethyl)ether	nd
20B 2-chloronaphthalene	nd
25B 1,2-dichlorobenzene	nd
26B 1,3-dichlorobenzene	nd
27B 1,4-dichlorobenzene	nd
28B 3,3'-dichlorobenzidine	nd
35B 2,4-dinitrotoluene	nd
36B 2,6-dinitrotoluene	nd
37B 1,2-diphenylhydrazine (as azobenzene)	nd
39B fluoranthene	nd
40B 4-chlorophenyl phenyl ether	nd

BASE/NEUTRAL COMPOUNDS	µg/L
41B 4-bromophenyl phenyl ether	nd
42B bis(2-chloroisopropyl)ether	nd
43B bis(2-chloroethoxy)methane	nd
52B hexachlorobutadiene	nd
53B hexachlorocyclopentadiene	nd
54B isophorone	nd
55B naphthalene	nd
56B nitrobenzene	nd
61B N-nitrosodimethylamine	nd
62B N-nitrosodiphenylamine	nd
63B N-nitrosodi-n-propylamine	nd
66B bis(2-ethylhexyl)phthalate	nd
67B butyl benzyl phthalate	nd
68B di-n-butyl phthalate	nd
69B di-n-octyl phthalate	nd
70B diethyl phthalate	nd
71B dimethyl phthalate	nd
72B benzo(a)anthracene	nd
73B benzo(a)pyrene	nd
74B 3,4-benzofluoranthene	nd
75B benzo(k)fluoranthene	nd
76B chrysene	nd
77B acenaphthylene	nd
78B anthracene	nd
79B benzo(ghi)perylene	nd
80B fluorene	nd
81B phenanthrene	nd
82B dibenzo(a,h)anthracene	nd
83B indeno(1,2,3-cd)pyrene	nd
84B pyrene	nd

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

8/12

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15023-3

CLIENT I.D. 25S ✓

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	* ✓
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	bexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	* ✓
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	* ✓
77B	acenaphthylene	ND
78B	anthracene	* ✓
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	* ✓
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	* ✓

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW 25S — ES ID E20792

6/15-82 — Aliquot analyzed 1L

Date Received 6/24-82 — Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ — Chemist LIB — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	0.32
Heptachlor epoxide	0.009	
Methoxychlor	0.02	
Toxaphene	0.4	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID Well #255 ES ID 820937

McClellan AFB Aliquot analyzed 1l

Date Received 13 August 1982 Detector Used: Coulson, (EC) Flame, PID

Date analyzed 30 Aug 82 Chemist HF Approved

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

no identifiable pesticide peaks

no identifiable herbicide peaks

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW #255

ES ID 820937

Aliquot Analyzed 1L

Date Received 13 August 1982

Detector Used: (EC) Coulson, Flame, PID

Date Analyzed 30 August 1982

Chemist HF

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB AW #255 — ES ID 820792

Aliquot analyzed _____

Date Received 24 June 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected mg/L	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	<0.05	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.0005	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

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8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.032	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

CLIENT: ENGINEERING SCIENCE

CAL LAB NO. 15015-3
CLIENT I.D.: 26S

PP#	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1,-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

* less than 10ug/L
ND= not detected

COMMENTS:

California Analytical Laboratories, Inc.

PAUL A. TAYLOR, Ph.D.
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CHARLES J. SODERQUIST, Ph.D
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California Analytical Laboratories, Inc.

5995 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

9/11

PRIORITY POLLUTANT DATA SUMMARY SHEET

CLIENT: ENGINEERING SCIENCE

CAL LAB NO. 15015-3 ✓
CLIENT I.D.: WELL 26S

	ACID COMPOUNDS	ug/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzene	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

* = less than a detection limit of 10 ug/L
ND= not detected

PESTICIDE/HERBICIDE REPORT FORM

Sample ID HLC 265 — SAMPLE HELD PAST EXTRACTION DATE — ES ID E2CG41

Aliquot analyzed 1ℓ

Date Received 4/21-22 — Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ — Chemist MB — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW 26-S — ES ID E2C794

6/16-82 — Aliquot analyzed 1L

Date Received 6/24-82 — Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ — Chemist LIB — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	0.165
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	0.013
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	0.095
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	0.003
2,4,5,T	0.001	0.002
2,4,5 TP (Silvex)	0.002	0.004
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB ES ID 820939

Well # 26S Aliquot analyzed 1l

Date Received 13 August 1982 Detector Used: Coulson, (EC), Flame, PID

Date analyzed 30 Aug 82 Chemist HF Approved

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	0.035
Beta BHC	0.004	0.077
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	0.053
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	0.002
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW # 26 S

ES ID 820939

Aliquot Analyzed 1L

Date Received 13 August 1982

Detector Used: (EC), Coulson, Flame, PID

Date Analyzed 30 August 1982

Chemist HF

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

4/27

METALS REPORT FORM

Sample ID McClellan MW #26S — ES ID 820641

Aliquot analyzed _____

Date Received 29 April 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	0.15	
Arsenic	p,h,c,d,o	—	10	1.00	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	0.132	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 (total)	0.51	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	1.09	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	0.068	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	).0005	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	2.89	
Potassium		10	—		
Selenium	p,h,c,d	—	10	0.244	
Silicon		10	—		

64/18

8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	5.9	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

METALS REPORT FORM

Sample ID McClellan AFB MW # 265 — ES ID 820794

Aliquot analyzed _____

Date Received 24 June 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected mg/L	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	<0.05	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.0005	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

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8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<0.02	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

4/28 pan.LW

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14545-4
CLIENT I.D. MW 27S

	VOLATILES	ug/L or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

8/12

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15023-5
CLIENT I.D. #275

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	*✓
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	*✓
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	*✓
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	15✓
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

4/28 comp

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14595-4

CLIENT I.D. Mw 27S

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

California Analytical Laboratories, Inc.

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(916) 381-5105

8/12

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15023-5
CLIENT I.D. Well 27S ✓

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	120 ✓
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	bexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW 275 ES ID 820796

6/16-82 Aliquot analyzed 1L

Date Received 6/24-82 Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ Chemist MB Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	4.95
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.05	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.4	
2,4,D	0.001	)
2,4,5,T	0.001	> sample lost
2,4,5 TP (Silvex)	0.002	/
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan ES ID 820941

Well # 275 Aliquot analyzed 1 l

Date Received 13 August 1982 Detector Used: Coulson, (EC), Flame, PID

Date analyzed 31 Aug 82 Chemist HF Approved

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	~~0.1~~
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	0.002
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

no identifiable pesticide peaks

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW #27S

ES ID 820941

Aliquot Analyzed 1L

Date Received 13 August 1982

Detector Used: (EC) Coulson, Flame, PID

Date Analyzed 31 August 1982

Chemist HF

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB MW #27S — ES ID 820796

Aliquot analyzed ____

Date Received 24 June 1982 — Method Used ____

Date analyzed ____ — Chemist ____ — Approved ____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected ppb	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	<0.05	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.0017	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

64/18

8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<0.02	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

6/16 sample

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14772-14
CLIENT I.D. MW28 S

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	nd
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

6/16 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14772-14

CLIENT I.D. MW 285

ACID COMPOUNDS		µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

BASE/NEUTRAL COMPOUNDS		µg/L
18	acenaphthene	nd
58	benzidine	nd
88	1,2,4-trichlorobenzene	nd
98	hexachlorobenzene	nd
128	hexachloroethane	nd
188	bis(2-chloroethyl)ether	nd
208	2-chloronaphthalene	nd
258	1,2-dichlorobenzene	nd
268	1,3-dichlorobenzene	nd
278	1,4-dichlorobenzene	nd
288	3,3'-dichlorobenzidine	nd
358	2,4-dinitrotoluene	nd
368	2,6-dinitrotoluene	nd
378	1,2-diphenylhydrazine (as azobenzene)	nd
398	fluoranthene	nd
408	4-chlorophenyl phenyl ether	nd
418	4-bromophenyl phenyl ether	nd
428	bis(2-chloroisopropyl)ether	nd
438	bis(2-chloroethoxy)methane	nd
528	hexachlorobutadiene	nd
538	hexachlorocyclopentadiene	nd
548	isophorone	nd
558	naphthalene	nd
568	nitrobenzene	nd
618	N-nitrosodimethylamine	nd
628	N-nitrosodiphenylamine	nd
638	N-nitrosodi-n-propylamine	nd
668	bis(2-ethylhexyl)phthalate	nd
678	butyl benzyl phthalate	nd
688	di-n-butyl phthalate	nd
698	di-n-octyl phthalate	nd
708	diethyl phthalate	nd
718	dimethyl phthalate	nd
728	benzo(a)anthracene	nd
738	benzo(a)pyrene	nd
748	3,4-benzofluoranthene	nd
758	benzo(k)fluoranthene	nd
768	chrysene	nd
778	acenaphthylene	nd
788	anthracene	nd
798	benzo(ghi)perylene	nd
808	fluorene	nd
818	phenanthrene	nd
828	dibenzo(a,h)anthracene	nd
838	indeno(1,2,3-cd)pyrene	nd
848	pyrene	nd

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW 25-3 ES ID E2C795

6/16-82 Aliquot analyzed 1ℓ

Date Received 6/24-82 Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ Chemist LMB Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	0.61
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.009	0.17
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	0.014
2,4,5,T	0.001	0.002
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

METALS REPORT FORM

Sample ID McClellan AFB MW #28S — ES ID 822795

Aliquot analyzed _____

Date Received 24 June 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	<0.05	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.0005	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

64/18

8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.052	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

4/29 MW-12

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14558-12

CLIENT I.D. MW 29S

	VOLATILES	ug/l or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

California Analytical Laboratories, Inc.

8/16

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15052-14
CLIENT I.D. Well 295

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	10
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = less than 10 ug/L
ND = Not detected

4/29 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 1-5256-12

CLIENT I.D. MW 295

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

California Analytical Laboratories, Inc.

5995 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

3/16

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15052-14
CLIENT I.D. Well 295

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	hexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	16
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

PESTICIDE/HERBICIDE REPORT FORM

Sample ID HIU29S

ES ID E20620

SAMPLE HELD PAST EXPIRATION DATE

Aliquot analyzed 1l.

Date Received 4/29-82

Detector Used: Coulson, EC, Flame, PID

Date analyzed [illegible]

Chemist MB

Approved

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB ES ID 820958

Well # 295 Aliquot analyzed 1 l

Date Received 18 August 1982 Detector Used: Coulson, (EC) Flame, PID

Date analyzed 30 Aug 82 Chemist HF Approved

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	1.54
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

no identifiable herbicide peaks

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB – MW #295

ES ID 820858

Aliquot Analyzed 1l

Date Received 18 August 1982

Detector Used: (EC), Coulson, Flame, PID

Date Analyzed 30 August 1982

Chemist HF

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB MW #295 — ES ID 0620

Aliquot analyzed _____

Date Received 29 April 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	0.041	
Arsenic	p,h,c,d,o	—	10	0.55	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	0.08	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	0.24	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	0.59	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	0.022	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.0021	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	2.13	
Potassium		10	—		
Selenium	p,h,c,d	—	10	0.105	
Silicon		10	—		

64/18

8/27/82

2-377

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	2.9%	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

6/16 sample

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14772-7

CLIENT I.D. MW30

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	2600
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	nd
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

California Analytical Laboratories, Inc.

8/17

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15052-17

CLIENT I.D. Well 305

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	*
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	10
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

6/16 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET 1 of

CLIENT Engineering Science

CAL LAB NO. 1477-2-07

CLIENT I.D. MW30

ACID COMPOUNDS	µg/L
21A 2,4,6-trichlorophenol	nd
22A p-chloro-m-cresol	nd
24A 2-chlorophenol	nd
31A 2,4-dichlorophenol	nd
34A 2,4-dimethylphenol	nd
57A 2-nitrophenol	nd
58A 4-nitrophenol	nd
59A 2,4-dinitrophenol	nd
60A 4,6-dinitro-o-cresol	nd
64A pentachlorophenol	nd
65A phenol	nd

BASE/NEUTRAL COMPOUNDS	
1B acenaphthene	nd
5B benzidine	nd
8B 1,2,4-trichlorobenzene	nd
9B hexachlorobenzene	nd
12B hexachloroethane	nd
18B bis(2-chloroethyl)ether	nd
20B 2-chloronaphthalene	nd
25B 1,2-dichlorobenzene	nd
26B 1,3-dichlorobenzene	nd
27B 1,4-dichlorobenzene	nd
28B 3,3'-dichlorobenzidine	nd
35B 2,4-dinitrotoluene	nd
36B 2,6-dinitrotoluene	nd
37B 1,2-diphenylhydrazine (as azobenzene)	nd
39B fluoranthene	nd
40B 4-chlorophenyl phenyl ether	nd
41B 4-bromophenyl phenyl ether	nd
42B bis(2-chloroisopropyl)ether	nd
43B bis(2-chloroethoxy)methane	nd
52B hexachlorobutadiene	nd
53B hexachlorocyclopentadiene	nd
54B isophorone	nd
55B naphthalene	nd
56B nitrobenzene	nd
61B N-nitrosodimethylamine	nd
62B N-nitrosodiphenylamine	nd
63B N-nitrosodi-n-propylamine	nd
66B bis(2-ethylhexyl)phthalate	150
67B butyl benzyl phthalate	nd
68B di-n-butyl phthalate	nd
69B di-n-octyl phthalate	nd
70B diethyl phthalate	nd
71B dimethyl phthalate	nd
72B benzo(a)anthracene	nd
73B benzo(a)pyrene	nd
74B 3,4-benzofluoranthene	nd
75B benzo(k)fluoranthene	nd
76B chrysene	nd
77B acenaphthylene	nd
78B anthracene	nd
79B benzo(ghi)perylene	nd
80B fluorene	nd
81B phenanthrene	nd
82B dibenzo(a,h)anthracene	nd
83B indeno(1,2,3-cd)pyrene	nd
84B pyrene	nd

California Analytical Laboratories, Inc.

5985 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

8/17/82

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15052-17

CLIENT I.D. Well 30 J

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	bexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW 30 ES ID E2CEC2

6/16-E2 Aliquot analyzed 1ℓ

Date Received 6/24-E2 Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ Chemist MB Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	0.041
Alpha BHC	0.002	
Beta BHC	0.004	0.007
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	0.063
2,4,5,T	0.001	0.029
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB Well #305 — ES ID 820960

Aliquot analyzed 1l

Date Received 18 August 1982 — Detector Used: Coulson, (EC), Flame, PID

Date analyzed 1 Sept 82 — Chemist HF — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	0.018
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

no identifiable herbicide peaks

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB
MW # 30

ES ID 820960

Aliquot Analyzed 1L

Date Received 18 August 1982

Detector Used: (EC), Coulson, Flame, PID

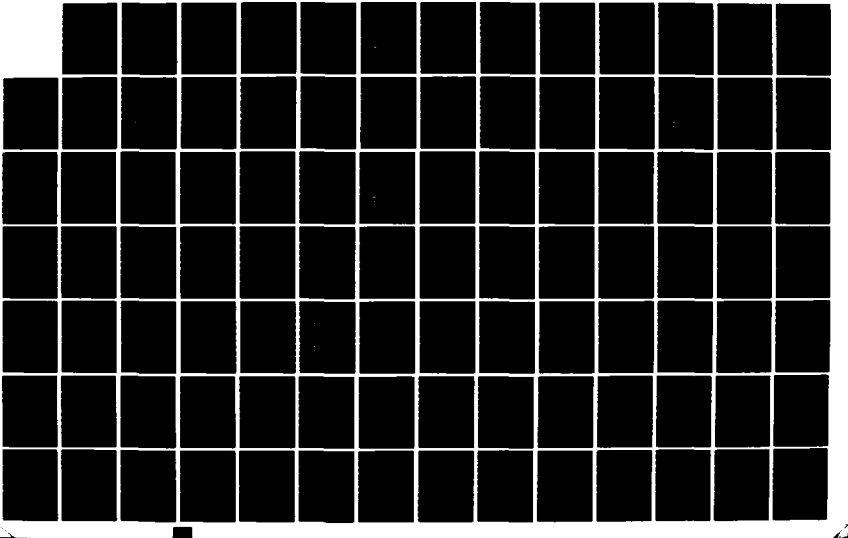
Date Analyzed 1 September 1982 Chemist HF

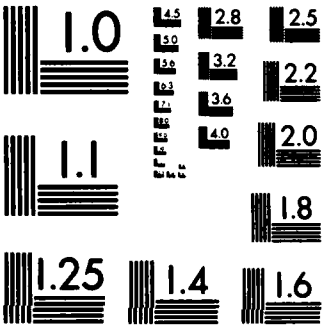
Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

AD-A133 006 INSTALLATION RESTORATION PROGRAM PHASE II CONFIRMATION 5/8
MCCLELLAN AFB CALIFORNIA VOLUME 2(U)
ENGINEERING-SCIENCE INC ARCADIA CALIF JUN 83
UNCLASSIFIED F33615-80-D-4001 F/G 13/2 NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

METALS REPORT FORM

Sample ID McClellan AFB MW #30 — ES ID 820802

Aliquot analyzed _____

Date Received 24 June 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected mg/L	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	<0.05	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.0016	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

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8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<0.02	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

6/16 sample

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14772-11
CLIENT I.D. MW31

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	nd
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

S1-1

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15052-18
CLIENT I.D. Well 315

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	*
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	10
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

6/16 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

pf

CLIENT Engineering Science

CAL LAB NO. 14772-11

CLIENT I.D. MW31

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	hexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

California Analytical Laboratories, Inc.

5095 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

8/11/82

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15052-18

CLIENT I.D. Well 31B ✓

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	bexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW 31 ES ID 820805

6/15-82 Aliquot analyzed 1l

Date Received 6/20-82 Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ Chemist MB Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.00[illegible]	2.53
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB ES ID 820961

Well # 315 Aliquot analyzed 1L

Date Received 18 August 1982 Detector Used: Coulson, (EC) Flame, PID

Date analyzed 27 Aug 82 Chemist HF Approved

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	0.024
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	0.0085
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	0.011
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	0.003
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW #31

ES ID 820961

Aliquot Analyzed 1L

Date Received 18 August 1982

Detector Used: (EC), Coulson, Flame, PID

Date Analyzed 27 August 1982 Chemist HF Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB MW #31 — ES ID 820805

Aliquot analyzed _____

Date Received 24 June 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	<0.05	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.0017	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

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8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<0.02	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

STAGE I DEEP WELLS

6/16/sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET jf

CLIENT Engineering Science CAL LAB NO. 14772-4
CLIENT I.D. MW16D

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	nd
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15052-13
CLIENT I.D. Well 16D

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	*
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

6/16 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET pf

CLIENT Engineering Science

CAL LAB NO. 147724

CLIENT I.D. MW16D

ACID COMPOUNDS	µg/L
21A 2,4,6-trichlorophenol	nd
22A p-chloro-m-cresol	nd
24A 2-chlorophenol	nd
31A 2,4-dichlorophenol	nd
34A 2,4-dimethylphenol	nd
57A 2-nitrophenol	nd
58A 4-nitrophenol	nd
59A 2,4-dinitrophenol	nd
60A 4,6-dinitro-o-cresol	nd
64A pentachlorophenol	nd
65A phenol	nd

BASE/NEUTRAL COMPOUNDS	µg/L
1B acenaphthene	nd
5B benzidine	nd
8B 1,2,4-trichlorobenzene	nd
9B hexachlorobenzene	nd
12B hexachloroethane	nd
18B bis(2-chloroethyl)ether	nd
20B 2-chloronaphthalene	nd
25B 1,2-dichlorobenzene	nd
26B 1,3-dichlorobenzene	nd
27B 1,4-dichlorobenzene	nd
28B 3,3'-dichlorobenzidine	nd
35B 2,4-dinitrotoluene	nd
36B 2,6-dinitrotoluene	nd
37B 1,2-diphenylhydrazine (as azobenzene)	nd
39B fluoranthene	nd
40B 4-chlorophenyl phenyl ether	nd
41B 4-bromophenyl phenyl ether	nd
42B bis(2-chloroisopropyl)ether	nd
43B bis(2-chloroethoxy)methane	nd
52B hexachlorobutadiene	nd
53B hexachlorocyclopentadiene	nd
54B isophorone	nd
55B naphthalene	nd
56B nitrobenzene	nd
61B N-nitrosodimethylamine	nd
62B N-nitrosodiphenylamine	nd
63B N-nitrosodi-n-propylamine	nd
66B bis(2-ethylhexyl)phthalate	nd
67B butyl benzyl phthalate	nd
68B di-n-butyl phthalate	nd
69B di-n-octyl phthalate	nd
70B diethyl phthalate	nd
71B dimethyl phthalate	nd
72B benzo(a)anthracene	nd
73B benzo(a)pyrene	nd
74B 3,4-benzofluoranthene	nd
75B benzo(k)fluoranthene	nd
76B chrysene	nd
77B acenaphthylene	nd
78B anthracene	nd
79B benzo(ghi)perylene	nd
80B fluorene	nd
81B phenanthrene	nd
82B dibenzo(a,h)anthracene	nd
83B indeno(1,2,3-cd)pyrene	nd
84B pyrene	nd

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

8117

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15052-13

CLIENT I.D. Well 16D ✓

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	hexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW 16D — ES ID E20793

6/16-82 — Aliquot analyzed 1l

Date Received 6/24-82 — Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ — Chemist MB — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	0.005
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	0.00E
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	0.082
2,4,5,T	0001	0.037
2,4,5 TP (Silvex)	0.002	0.080
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB Well #K6D — ES ID 820950

Aliquot analyzed 1 ℓ

Date Received 18 August 1982 — Detector Used: Coulson, (EC) Flame, PID

Date analyzed 26 Aug 82 — Chemist HF — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

no identifiable peaks

no identifiable peaks

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB mw #16D

ES ID 820850

Aliquot Analyzed 1L

Date Received 18 August 1982

Detector Used: (EC), Coulson, Flame, PID

Date Analyzed 26 August 1982

Chemist HF

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB MW #160 — ES ID R20793

Aliquot analyzed

Date Received 24 June 1982 — Method Used

Date analyzed — Chemist — Approved

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected mg/L	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	} total <0.05	
Chromium (+6)	c	—	10	}	
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.0005	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

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8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<0.02	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

6/16 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14772-3
CLIENT I.D. MW17D

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	nd
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15052-7
CLIENT I.D. Well 17D

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	nd
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

6/16 combined

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SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET 1 of

CLIENT Engineering Science

CAL LAB NO. 14772-03

CLIENT I.D. MW17D

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
18	acenaphthene	nd
58	benzidine	nd
88	1,2,4-trichlorobenzene	nd
98	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	hexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

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8/17

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15052-7

CLIENT I.D. Well 17D ✓

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	bexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW 17D — ES ID E2C797

6/15-82 — Aliquot analyzed 1L

Date Received 6/24-82 — Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ — Chemist MB — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	0.099
2,4,5,T	0.001	0.032
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB ES ID E20952

Well #17D Aliquot analyzed 1ℓ

Date Received 18 August 1982 Detector Used: Coulson, (EC) Flame, PID

Date analyzed 26 Aug 82 Chemist HF Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

no identifiable peaks

no identifiable peaks

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW #17 D

ES ID 820952

Aliquot Analyzed 1L

Date Received 18 August 1982

Detector Used: (EC) Coulson, Flame, PID

Date Analyzed 26 August 1982

Chemist HF

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID Mc Clellon AFB MW #170 — ES ID 820797

Aliquot analyzed _____

Date Received 24 June 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	total <0.05	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.0009	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

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8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<0.02	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

6

July 21, 1982

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14772-1
CLIENT I.D. MW 18D

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	nd
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

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California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

8/16

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15052-9
CLIENT I.D. 18D

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	nd
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

w/o sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET 1 of

CLIENT Engineering Science

CAL LAB NO. 14772-1

CLIENT I.D. MW18D

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	hexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

8/16

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15052-9

CLIENT I.D. Well 18D

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	hexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	12 ✓
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW 1CD — ES ID E20FCC

6-5-82 — Aliquot analyzed 1l

Date Received 6/24-82 — Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ — Chemist LIB — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	0.01
Alpha BHC	0.002	
Beta BHC	0.004	0.005
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.05	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	0.017
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	0.122
2,4,5,T	0.001	0.022
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB Well # FCD

ES ID E2C954

Aliquot analyzed 1L

Date Received 18 August 1982

Detector Used: Coulson, (EC) Flame, PID

Date analyzed 26 Aug 82 Chemist HF Approved

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ND identifiable peaks

ND identifiable herbicide peaks

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID Mc Clellan AFB MW #180

ES ID 820954

Aliquot Analyzed 1L

Date Received 13 August 82

Detector Used: (ECD), Coulson, Flame, PID

Date Analyzed 26 August 82

Chemist HF

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB MW# 180 — ES ID 820800

Aliquot analyzed _____

Date Received 24 June 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected mg/L	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	0.09	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	total <0.05	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.0014	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

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8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<0.02	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

4/29 sample

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14532-4

CLIENT I.D. MW 19 D

	VOLATILES	ug/L or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

8/16

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15052-12
CLIENT I.D. Well 19D

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	nd
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

4/29 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-9602

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14556-4

CLIENT I.D. MW19D

ACID COMPOUNDS	µg/L
21A 2,4,6-trichlorophenol	ND
22A p-chloro-m-cresol	ND
24A 2-chlorophenol	ND
31A 2,4-dichlorophenol	ND
34A 2,4-dimethylphenol	ND
57A 2-nitrophenol	ND
58A 4-nitrophenol	ND
59A 2,4-dinitrophenol	ND
60A 4,6-dinitro-o-cresol	ND
64A pentachlorophenol	ND
65A phenol	ND

BASE/NEUTRAL COMPOUNDS	µg/L
1B acenaphthene	ND
5B benzidine	ND
8B 1,2,4-trichlorobenzene	ND
9B hexachlorobenzene	ND
12B hexachloroethane	ND
18B bis(2-chloroethyl)ether	ND
20B 2-chloronaphthalene	ND
25B 1,2-dichlorobenzene	ND
26B 1,3-dichlorobenzene	ND
27B 1,4-dichlorobenzene	ND
28B 3,3'-dichlorobenzidine	ND
35B 2,4-dinitrotoluene	ND
36B 2,6-dinitrotoluene	ND
37B 1,2-diphenylhydrazine (as azobenzene)	ND
39B fluoranthene	ND
40B 4-chlorophenyl phenyl ether	ND

BASE/NEUTRAL COMPOUNDS	µg/L
41B 4-bromophenyl phenyl ether	ND
42B bis(2-chloroisopropyl)ether	ND
43B bis(2-chloroethoxy)methane	ND
52B bexachlorobutadiene	ND
53B hexachlorocyclopentadiene	ND
54B isophorone	ND
55B naphthalene	ND
56B nitrobenzene	ND
61B N-nitrosodimethylamine	ND
62B N-nitrosodiphenylamine	ND
63B N-nitrosodi-n-propylamine	ND
66B bis(2-ethylhexyl)phthalate	ND
67B butyl benzyl phthalate	ND
68B di-n-butyl phthalate	ND
69B di-n-octyl phthalate	ND
70B diethyl phthalate	ND
71B dimethyl phthalate	ND
72B benzo(a)anthracene	ND
73B benzo(a)pyrene	ND
74B 3,4-benzofluoranthene	ND
75B benzo(k)fluoranthene	ND
76B chrysene	ND
77B acenaphthylene	ND
78B anthracene	ND
79B benzo(ghi)perylene	ND
80B fluorene	ND
81B phenanthrene	ND
82B dibenzo(a,h)anthracene	ND
83B indeno(1,2,3-cd)pyrene	ND
84B pyrene	ND

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

8/16

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15052-12

CLIENT I.D. Well 19D ✓

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	* ✓
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	hexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	* ✓
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW 19D — ES ID 526623

Aliquot analyzed 1l.

Date Received 4/29-82 — Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ — Chemist LB — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	0.005
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	0.003
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB Well # 19D

ES ID E20956

Aliquot analyzed 1 l.

Date Received 15 August, 1982

Detector Used: Coulson, (EC) Flame, PID

Date analyzed 26 Aug 82

Chemist HF

Approved

	Detection Limits (PPB)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	<.006
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	<.004
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

no identifiable herbicide peaks

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB mw # 190

ES ID 820956

Aliquot Analyzed 1 L

Date Received 18 August 1982

Detector Used: (EC) Coulson, Flame, PID

Date Analyzed 26 August 1982 Chemist HF Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB MW #19D — ES ID 0623

Aliquot analyzed ____

Date Received 29 April 1982 — Method Used ____

Date analyzed ____ — Chemist ____ — Approved ____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	total <0.05	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.013	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

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8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.13	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

4/29 sample

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14532-5
CLIENT I.D. MW 20 D

	VOLATILES	ug/L or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

CLIENT: ENGINEERING SCIENCE

CAL LAB NO. 15015-2
CLIENT I.D.: 20D FROM PUMP

PP#	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	* ✓
13V	1,1,-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

* less than 10ug/L
ND= not detected

COMMENTS:

California Analytical Laboratories, Inc.

4/29 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0602

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14556-5

CLIENT I.D. MW 20 D

ACID COMPOUNDS	µg/L	BASE/NEUTRAL COMPOUNDS	µg/L
21A 2,4,6-trichlorophenol	ND	41B 4-bromophenyl phenyl ether	ND
22A p-chloro-m-cresol	ND	42B bis(2-chloroisopropyl)ether	ND
24A 2-chlorophenol	ND	43B bis(2-chloroethoxy)methane	ND
31A 2,4-dichlorophenol	ND	52B bexachlorobutadiene	ND
34A 2,4-dimethylphenol	ND	53B hexachlorocyclopentadiene	ND
57A 2-nitrophenol	ND	54B isophorone	ND
58A 4-nitrophenol	ND	55B naphthalene	ND
59A 2,4-dinitrophenol	ND	56B nitrobenzene	ND
60A 4,6-dinitro-o-cresol	ND	61B N-nitrosodimethylamine	ND
64A pentachlorophenol	ND	62B N-nitrosodiphenylamine	ND
65A phenol	ND	63B .N-nitrosodi-n-propylamine	ND
		66B bis(2-ethylhexyl)phthalate	ND
BASE/NEUTRAL COMPOUNDS		67B butyl benzyl phthalate	ND
1B acenaphthene	ND	68B di-n-butyl phthalate	ND
5B benzidine	ND	69B di-n-octyl phthalate	ND
8B 1,2,4-trichlorobenzene	ND	70B diethyl phthalate	ND
9B hexachlorobenzene	ND	71B dimethyl phthalate	ND
12B hexachloroethane	ND	72B benzo(a)anthracene	ND
18B bis(2-chloroethyl)ether	ND	73B benzo(a)pyrene	ND
20B 2-chloronaphthalene	ND	74B 3,4-benzofluoranthene	ND
25B 1,2-dichlorobenzene	ND	75B benzo(k)fluoranthene	ND
26B 1,3-dichlorobenzene	ND	76B chrysene	ND
27B 1,4-dichlorobenzene	ND	77B acenaphthylene	ND
28B 3,3'-dichlorobenzidine	ND	78B anthracene	ND
35B 2,4-dinitrotoluene	ND	79B benzo(ghi)perylene	ND
36B 2,6-dinitrotoluene	ND	80B fluorene	ND
37B 1,2-diphenylhydrazine (as azobenzene)	ND	81B phenanthrene	ND
39B fluoranthene	ND	82B dibenzo(a,h)anthracene	ND
40B 4-chlorophenyl phenyl ether	ND	83B indeno(1,2,3-cd)pyrene	ND
		84B pyrene	ND

PAUL A. TAYLOR, Ph.D.
PRESIDENT

CHARLES J. SODERQUIST, Ph.D
VICE PRESIDENT

ANTHONY S. WONG, Ph.D.
VICE PRESIDENT

RUBY A. ULRICH
SECRETARY/TREASURER

California Analytical Laboratories, Inc.

5985 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

8/11

PRIORITY POLLUTANT DATA SUMMARY SHEET

CLIENT: ENGINEERING SCIENCE

CAL LAB NO. 15015-2 ✓
CLIENT I.D.: WELL 20D ✓

ACID COMPOUNDS	ug/L
21A 2,4,6-trichlorophenol	ND
22A p-chloro-m-cresol	ND
24A 2-chlorophenol	ND
31A 2,4-dichlorophenol	ND
34A 2,4-dimethylphenol	ND
57A 2-nitrophenol	ND
58A 4-nitrophenol	ND
59A 2,4-dinitrophenol	ND
60A 4,6-dinitro-o-cresol	ND
64A pentachlorophenol	ND
65A phenol	ND

BASE/NEUTRAL COMPOUNDS	ug/L
1B acenaphthene	ND
5B benzidine	ND
8B 1,2,4-trichlorobenzene	* ✓
9B hexachlorobenzene	ND
12B hexachloroethane	ND
18B bis(2-chloroethyl)ether	ND
20B 2-chloronaphthalene	ND
25B 1,2-dichlorobenzene	ND
26B 1,3-dichlorobenzene	ND
27B 1,4-dichlorobenzene	ND
28B 3,3'-dichlorobenzene	ND
35B 2,4-dinitrotoluene	ND
36B 2,6-dinitrotoluene	ND
37B 1,2-diphenylhydrazine (as azobenzene)	ND
39B fluoranthene	ND
40B 4-chlorophenyl phenyl ether	ND
41B 4-bromophenyl phenyl ether	ND
42B bis(2-chloroisopropyl)ether	ND
43B bis(2-chloroethoxy)methane	ND
52B hexachlorobutadiene	ND
53B hexachlorocyclopentadiene	ND
54B isophorone	ND
55B naphthalene	ND
56B nitrobenzene	ND
61B N-nitrosodimethylamine	ND
62B N-nitrosodiphenylamine	ND
63B N-nitrosodi-n-propylamine	ND
66B bis(2-ethylhexyl)phthalate	ND
67B butyl benzyl phthalate	ND
68B di-n-butyl phthalate	ND
69B di-n-octyl phthalate	ND
70B diethyl phthalate	ND
71B dimethyl phthalate	ND
72B benzo(a)anthracene	ND
73B benzo(a)pyrene	ND
74B 3,4-benzofluoranthene	ND
75B benzo(k)fluoranthene	ND
76B chrysene	ND
77B acenaphthylene	ND
78B anthracene	* ✓
79B benzo(ghi)perylene	ND
80B fluorene	ND
81B phenanthrene	ND
82B dibenzo(a,h)anthracene	ND
83B indeno(1,2,3-cd)pyrene	ND
84B pyrene	ND

* = less than a detection limit of 10 ug/L
ND= not detected

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW 20D — ES ID E70632

Aliquot analyzed 1l

Date Received 4/29-82 — Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ — Chemist MB — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB Well #20D — ES ID E2C924

Aliquot analyzed 1l.

Date Received 11 Aug 82 — Detector Used: Coulson, (EC) Flame, PID

Date analyzed 26 Aug 82 — Chemist HF — Approved _____

	Detection Limits	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

no identifiable peaks

no identifiable herbicide peaks

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID Mc Clellan AFB mud # 200

ES ID 820924

Aliquot Analyzed 1L

Date Received 11 August 1982

Detector Used: (EC), Coulson, Flame, PID

Date Analyzed 26 August 1982

Chemist HF

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
(6) Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB MW #20D — ES ID 0632

Aliquot analyzed ____

Date Received 29 April 1982 — Method Used ____

Date analyzed ____ — Chemist ____ — Approved ____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected µg/L	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	total <0.05	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.0005	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<0.05	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

6/16 samples

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14772-10
CLIENT I.D. MW2D

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	nd
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

CLIENT: ENGINEERING SCIENCE

CAL LAB NO. 15031-1
CLIENT I.D.: #21 D

PP#	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1,-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

* less than 10ug/L
ND= not detected

COMMENTS:

California Analytical Laboratories, Inc.

6/16 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET 1 of

CLIENT Engineering Science

CAL LAB NO. 14732-10

CLIENT I.D. MW21D

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	hexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

PAUL A. TAYLOR, Ph.D.
PRESIDENT

CHARLES J. SODERQUIST, Ph.D
VICE PRESIDENT

ANTHONY S. WONG, Ph.D.
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California Analytical Laboratories, Inc.

5985 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 391-5105

8/13

PRIORITY POLLUTANT DATA SUMMARY SHEET

CLIENT: ENGINEERING SCIENCE

CAL LAB NO. 15031-1 ✓
CLIENT I.D.: #21 D ✓

	ACID COMPOUNDS	ug/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	* ✓
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzene	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

* = less than a detection limit of 10 ug/L
ND = not detected

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW 21D — ES ID 820791

6/15-82 — Aliquot analyzed 1 l

Date Received ____ — Detector Used: Coulson, (EC), Flame, PID

Date analyzed ____ — Chemist LIB — Approved ____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	0.012
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	0.008
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	0.175
2,4,5,T	0.001	0.044
2,4,5 TP (Silvex)	0.002	0.42
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB Well # 21 D

ES ID E20928a

Aliquot analyzed 1ℓ

Date Received 13 Aug 82

Detector Used: Coulson, (EC) Flame, PID

Date analyzed 26 Aug 82

Chemist HF

Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	<.001
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

no identifiable peaks

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID Mc Clellan AFB MW #210

ES ID 820928a

Aliquot Analyzed 1l

Date Received 13 August 1982

Detector Used: (EC), Coulson, Flame, PID

Date Analyzed 26 August 1982

Chemist HF

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB MW #21 D — ES ID 820791

Aliquot analyzed ____

Date Received 24 June 1982 — Method Used ____

Date analyzed ____ — Chemist ____ — Approved ____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected µg/L	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	total <0.05	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.0005	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

64/18

8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h;c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<0.02	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

4/29 sample

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14556-8

CLIENT I.D. MW 22 D

	VOLATILES	ug/L or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

5 3

CLIENT: ENGINEERING SCIENCE

CAL LAB NO. 15031-4
CLIENT I.D.: #22 D

PP#	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1,-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

* less than 10ug/L
ND= not detected

COMMENTS:

4/29 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-9602

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14556-8

CLIENT I.D. MW 22D

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	bexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PAUL A. TAYLOR, Ph.D.
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SECRETARY/TREASURER

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

8/13

PRIORITY POLLUTANT DATA SUMMARY SHEET

CLIENT: ENGINEERING SCIENCE

CAL LAB NO. 15031-4 ✓
CLIENT I.D.: # 22 D

	ACID COMPOUNDS	ug/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	* ✓
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzene	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

* = less than a detection limit of 10 ug/L
ND = not detected

PESTICIDE/HERBICIDE REPORT FORM

Sample ID LW 22D — ES ID 820624

Aliquot analyzed 1ℓ

Date Received 4/29-82 — Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ — Chemist MB — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.4	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

2-450

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB — ES ID 820930

Well # 22 D — Aliquot analyzed 1L

Date Received 13 Aug 82 — Detector Used: Coulson, (EC) Flame, PID

Date analyzed 27 Aug 82 — Chemist HF — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	0.0039
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

no identifiable herbicide peaks

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW 432 D

RS ID 820930

Aliquot Analyzed 1l

Date Received 13 August 1982

Detector Used: (EC) Coulson, Flame, PID

Date Analyzed 27 August 1982

Chemist HF

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected

METALS REPORT FORM

Sample ID McClellan AFB MW # 220 — ES ID 0624

Aliquot analyzed _____

Date Received 29 April 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	total 0.84	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.0005	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

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8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.16	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

4/29 sample

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14556 - 10
CLIENT I.D. MW 23D

	VOLATILES	ug/l or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

8/13

CLIENT: ENGINEERING SCIENCE

CAL LAB NO. 15031-6
CLIENT I.D.: #23 D

PP#	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1,-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

* less than 10ug/L
ND= not detected

COMMENTS:

California Analytical Laboratories, Inc.

4/29 sample

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14556-10

CLIENT I.D. MW 23D

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	bexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PAUL A. TAYLOR, Ph.D.
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CHARLES J. SODERQUIST, Ph.D
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ANTHONY S. WONG, Ph.D
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RUBY A. ULRICH
SECRETARY/TREASURER

California Analytical Laboratories, Inc.

5985 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

8/13

PRIORITY POLLUTANT DATA SUMMARY SHEET

CLIENT: ENGINEERING SCIENCE

CAL LAB NO. 15031-6 ✓
CLIENT I.D.: # 23 D ✓

	ACID COMPOUNDS	ug/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	ug/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	* ✓
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzene	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

* = less than a detection limit of 10 ug/L
ND = not detected

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW 23D — ES ID 820625

Aliquot analyzed 1 l

Date Received 4/29-82 — Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ — Chemist MB — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID Well # 23D — ES ID 820932

McClellan AFB — Aliquot analyzed 1l

Date Received 13 August 82 — Detector Used: Coulson, (EC) Flame, PID

Date analyzed 27 Aug 82 — Chemist HF — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	0.0018
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	0.039
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

no identifiable herbicide peaks

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID Mc Clellan AFB MW #230

ES ID 820932

Aliquot Analyzed 1l

Date Received 13 August 1982

Detector Used: (EC) Coulson, Flame, PID

Date Analyzed 27 August 1982

Chemist HF

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB MW# 230 — ES ID 0625

Aliquot analyzed _____

Date Received 29 April 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	total <0.05	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.001	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

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8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<0.05	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

4/28/82 sam.fw

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14545-2
CLIENT I.D. MW 24 D

	VOLATILES	ug/L or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

California Analytical Laboratories, Inc.

8/17

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15023-1

CLIENT I.D. #24 D

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	nd
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

28 May 1982

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-9802

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14545-2

CLIENT I.D. [illegible]-4.0

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	bexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

California Analytical Laboratories, Inc.

5985 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

8/12

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15023-1

CLIENT I.D. Well 24D ✓

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	* ✓
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW 24D — ES ID E20625

Aliquot analyzed 1l

Date Received 4/29/82 — Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ — Chemist MB — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	0.009
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	0.60
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB ES ID 820934

Well # 24D Aliquot analyzed 1 l.

Date Received 13 August 1982 Detector Used: Coulson, (EC) Flame, PID

Date analyzed 27 Aug 82 Chemist HE Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	0.005
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

no identifiable peaks

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID Mc Clellan AFB mw #240

ES ID 820934

Aliquot Analyzed 1l

Date Received 13 August 1982

Detector Used: (EC) Coulson, Flame, PID

Date Analyzed 27 August 1982

Chemist HF

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID Mc Clellan AFB MW #240 ES ID 0628

Aliquot analyzed

Date Received 29 April 1982 Method Used

Date analyzed Chemist Approved

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	---	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	---		
Chromium (+3)	p,h,c,d,o	20	1 } total	<0.05	
Chromium (+6)	c	---	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	---		
Magnesium		1	---		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	---	0.5	0.0208	
Molybdenum	c	500	---		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	---		
Selenium	p,h,c,d	---	10	<0.01	
Silicon		10	---		

64/18 8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.14	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

6/16 complete

California Analytical Laboratories, Inc.

5886 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

PRIORITY POLLUTANT DATA SHEET 1 of

CLIENT Engineering Science CAL LAB NO. 14772-9
CLIENT I.D. MW25D

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	nd
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

California Analytical Laboratories, Inc.

5995 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15023-4
CLIENT I.D. 25D

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	*
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	*
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

6/16 complete

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET 1 of

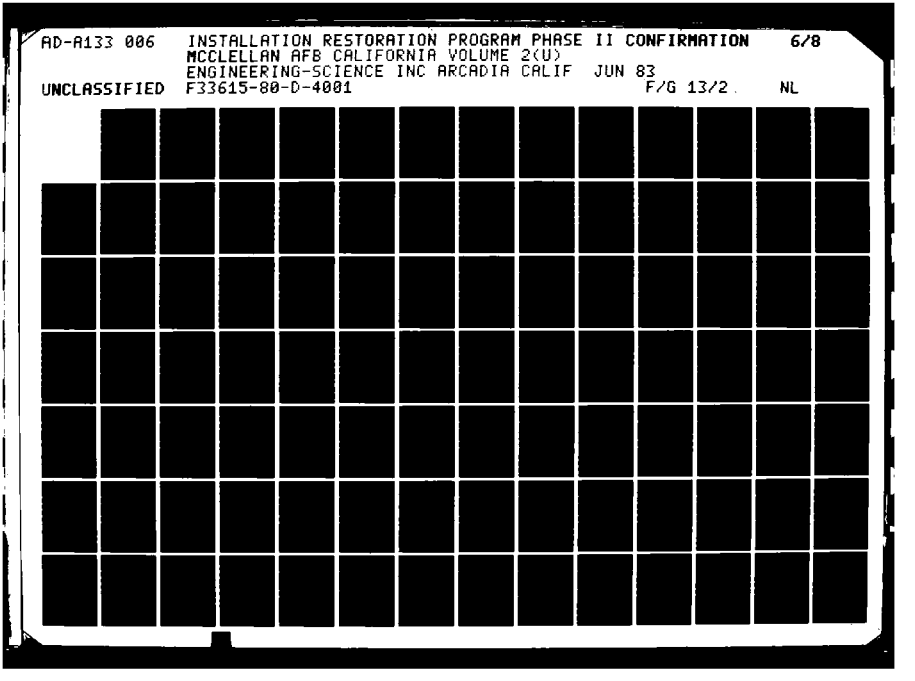
CLIENT Engineering Science

CAL LAB NO. 147729

CLIENT I.D. MW25D

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	bexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd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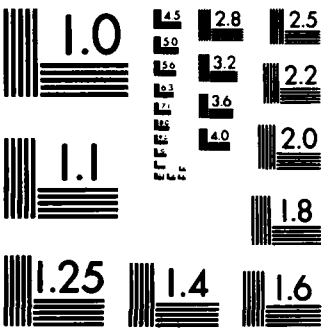
MCCLELLAN AFB CALIFORNIA VOLUME 2(U)
ENGINEERING-SCIENCE INC ARCADIA CALIF JUN 83
UNCLASSIFIED F33615-80-D-4001 F/G 13/2 NL



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

California Analytical Laboratories, Inc.

5985 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

9/12 PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15023-4

CLIENT I.D. Well 25D ✓

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	*/
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	bexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW 25D — ES ID 820790

6/15-82 — Aliquot analyzed 1ℓ

Date Received 6/24-82 — Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ — Chemist MB — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	0.12
2,4,5,T	0.001	0.025
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB — ES ID 820936

Well # 25D — Aliquot analyzed 1 l

Date Received 13 August 1982 — Detector Used: Coulson, (EC) Flame, PID

Date analyzed 27 Aug 82 — Chemist HF — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	<.009
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	0.004
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW #25D

ES ID 820936

Aliquot Analyzed 1l

Date Received 13 August 1982

Detector Used: (EC), Coulson, Flame, PID

Date Analyzed 27 August 1982

Chemist HF

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected

METALS REPORT FORM

Sample ID McClellan AFB MW #250 — ES ID 823790

Aliquot analyzed _____

Date Received 24 June 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	total 0.06	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.0005	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

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8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.024	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

4/28/82 sample

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14545-3

CLIENT I.D. MW 26 D

	VOLATILES	ug/l or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

5/11

CLIENT: ENGINEERING SCIENCE

CAL LAB NO. 15015-4
CLIENT I.D.: 26D

PP#	VOLATILES	ug/L
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1,-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

* less than 10ug/L
ND= not detected

COMMENTS:

California Analytical Laboratories, Inc.

4/28/82 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. [illegible]

CLIENT I.D. [illegible]

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	[illegible]
42B	bis(2-chloroisopropyl)ether	[illegible]
43B	bis(2-chloroethoxy)methane	[illegible]
52B	hexachlorobutadiene	[illegible]
53B	hexachlorocyclopentadiene	[illegible]
54B	isophorone	[illegible]
55B	naphthalene	[illegible]
56B	nitrobenzene	[illegible]
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	[illegible]
63B	N-nitrosodi-n-propylamine	[illegible]
66B	bis(2-ethylhexyl)phthalate	[illegible]
67B	butyl benzyl phthalate	[illegible]
68B	di-n-butyl phthalate	[illegible]
69B	di-n-octyl phthalate	[illegible]
70B	diethyl phthalate	[illegible]
71B	dimethyl phthalate	[illegible]
72B	benzo(a)anthracene	[illegible]
73B	benzo(a)pyrene	[illegible]
74B	3,4-benzofluoranthene	[illegible]
75B	benzo(k)fluoranthene	[illegible]
76B	chrysene	[illegible]
77B	acenaphthylene	[illegible]
78B	anthracene	[illegible]
79B	benzo(ghi)perylene	[illegible]
80B	fluorene	[illegible]
81B	phenanthrene	[illegible]
82B	dibenzo(a,h)anthracene	[illegible]
83B	indeno(1,2,3-cd)pyrene	[illegible]
84B	pyrene	[illegible]

PAUL A. TAYLOR, Ph.D.
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California Analytical Laboratories, Inc.

5926 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

8/11

PRIORITY POLLUTANT DATA SUMMARY SHEET

CLIENT: ENGINEERING SCIENCE

CAL LAB NO. 15015-4 ✓
CLIENT I.D.: WELL 26D

	ACID COMPOUNDS	ug/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	* ✓

	BASE/NEUTRAL COMPOUNDS	ug/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	* ✓
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzene	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

* = less than a detection limit of 10 ug/L
ND = not detected

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW26D ES ID E20619

Aliquot analyzed 1l

Date Received 4/29-82 Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ Chemist MB Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	0.004
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB Well #26D

ES ID E20938

Aliquot analyzed 1 l

Date Received 13 August 1982

Detector Used: Coulson, (EC), Flame, PID

Date analyzed 30 Aug 82 Chemist HF Approved

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	0.038
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW #26D

ES ID 820938

Aliquot Analyzed 1L

Date Received 13 August 1982

Detector Used: (EC), Coulson, Flame, PID

Date Analyzed 30 August 1982

Chemist HF

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB MW #260 — ES ID 820619

Aliquot analyzed _____

Date Received 29 April 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected Limit
Aluminum		500	50	
Antimony	p,c	500	10	<0.005
Arsenic	p,h,c,d,o	—	10	<0.05
Barium	h,c,d	1,000	5	
Beryllium	p,c,			
Cadmium	p,h,c,d,o	5	0.1	<01
Calcium		50	—	
Chromium (+3)	p,h,c,d,o	20	1 } total	<0.05
Chromium (+6)	c	—	10 }	
Cobalt		50	1	
Copper	p,c,d,o	20	1	<0.05
Gold		100	1	
Iron	d	100	1	
Lead	p,h,c,d,o	100	10	<0.01
Lithium		50	—	
Magnesium		1	—	
Manganese	d	10	0.5	
Mercury	p,h,c,d,o	—	0.5	sample not analyzed for this metal
Molybdenum	c	500	—	
Nickel	p,c,o	40	1	<0.05
Potassium		10	—	
Selenium	p,h,c,d	—	10	<0.01
Silicon		10	—	

64/18

8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.05	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

4/28/82 sample

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14545-5
CLIENT I.D. MW 27D

	VOLATILES	ug/L or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15023-6
CLIENT I.D. #27D

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	*
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

4/28/82 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. [illegible]

CLIENT I.D. [illegible]

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

California Analytical Laboratories, Inc.

5995 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

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PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15023-6 ✓

CLIENT I.D. Well 27D ✓

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	* ✓
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	hexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW 27D ES ID E2C62C

Aliquot analyzed 1L

Date Received 4-20-87 Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ Chemist MB Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	0.12
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	0.04
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB ES ID 820940

Well # 27D Aliquot analyzed 1 l

Date Received 13 August 1982 Detector Used: Coulson, (EC), Flame, PID

Date analyzed 31 Aug 82 Chemist HF Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	0.003
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

no identifiable pesticide peaks

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW #270

ES ID 820940

Aliquot Analyzed 1L

Date Received 13 August 1982

Detector Used: (EC) Coulson, Flame, PID

Date Analyzed 31 August 1982

Chemist HF

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected

METALS REPORT FORM

Sample ID McClellan AFB MW # 270 — ES ID 0630

Aliquot analyzed _____

Date Received 29 April 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	0.023	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	<0.05	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	0.13	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.0005	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

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8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.32	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

6/16 Sample

California Analytical Laboratories, Inc.

5995 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

PRIORITY POLLUTANT DATA SHEET 1 of

CLIENT Engineering Science CAL LAB NO. 14772-8
CLIENT I.D. MW28D

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	nd
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	nd
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

California Analytical Laboratories, Inc.

8/17

5895 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15052-16
CLIENT I.D. Well 28D

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	* ✓
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	10 ✓
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

6/16 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET 1 of

CLIENT Engineering Science

CAL LAB NO. 14772-8

CLIENT I.D. MW28D

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	bexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-8105

8/17

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15052-16

CLIENT I.D. Well 28D1

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	bexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	nd
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

PESTICIDE/HERBICIDE REPORT FORM

Sample ID MW 29D — ES ID E2CEC3

6/16-22 — Aliquot analyzed 1L

Date Received 6/24-22 — Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ — Chemist LIB — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	0.145
Alpha BHC	0.002	
Beta BHC	0.004	0.027
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	0.246
2,4,5,T	0.001	0.022
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB ES ID 820957

Well #28D Aliquot analyzed 1l

Date Received 18 August, 1982 Detector Used: Coulson, (EC) Flame, PID

Date analyzed 26 Aug 82 Chemist HF Approved

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	<.006
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	<.004
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	<.001
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW #280 — ES ID 820957

Aliquot Analyzed 1l

Date Received 18 August 1982 — Detector Used: (EC), Coulson, Flame, PID

Date Analyzed 26 August 1982 — Chemist HF — Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID Mc Clellan AFB MW #280 — ES ID 820803

Aliquot analyzed _____

Date Received 24 June 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected mg/L	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	<0.05	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.0039	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

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8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.14	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

4/29 sample

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14556-9

CLIENT I.D. MW 29D

	VOLATILES	ug/L or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

California Analytical Laboratories, Inc.

5005 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15052-15

CLIENT I.D. Well 29D

	VOLATILES	ug/L
2V	acrolein	nd
3V	acrylonitrile	nd
4V	benzene	nd
6V	carbon tetrachloride	nd
7V	chlorobenzene	nd
10V	1,2-dichloroethane	nd
11V	1,1,1-trichloroethane	nd
13V	1,1-dichloroethane	nd
14V	1,1,2-trichloroethane	nd
15V	1,1,2,2-tetrachloroethane	nd
16V	chloroethane	nd
19V	2-chloroethylvinyl ether	nd
23V	chloroform	nd
29V	1,1-dichloroethylene	* ✓
30V	1,2-trans-dichloroethylene	nd
32V	1,2-dichloropropane	nd
33V	1,3-dichloropropylene	nd
38V	ethylbenzene	nd
44V	methylene chloride	nd
45V	methyl chloride	nd
46V	methyl bromide	nd
47V	bromoform	nd
48V	dichlorobromomethane	nd
49V	trichlorofluoromethane	nd
50V	dichlorodifluoromethane	nd
51V	chlorodibromomethane	nd
85V	tetrachloroethylene	nd
86V	toluene	nd
87V	trichloroethylene	10 ✓
88V	vinyl chloride	nd
	1,1,2-trichloro-2,2,1-trifluoroethane	nd

* = Less than 10 ug/L
ND = Not detected

4/29 water file

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14556-9

CLIENT I.D. MW 29D

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

8/16

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15052-15 ✓

CLIENT I.D. WELL 29D ✓

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	nd
22A	p-chloro-m-cresol	nd
24A	2-chlorophenol	nd
31A	2,4-dichlorophenol	nd
34A	2,4-dimethylphenol	nd
57A	2-nitrophenol	nd
58A	4-nitrophenol	nd
59A	2,4-dinitrophenol	nd
60A	4,6-dinitro-o-cresol	nd
64A	pentachlorophenol	nd
65A	phenol	nd

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	nd
5B	benzidine	nd
8B	1,2,4-trichlorobenzene	nd
9B	hexachlorobenzene	nd
12B	hexachloroethane	nd
18B	bis(2-chloroethyl)ether	nd
20B	2-chloronaphthalene	nd
25B	1,2-dichlorobenzene	nd
26B	1,3-dichlorobenzene	nd
27B	1,4-dichlorobenzene	nd
28B	3,3'-dichlorobenzidine	nd
35B	2,4-dinitrotoluene	nd
36B	2,6-dinitrotoluene	nd
37B	1,2-diphenylhydrazine (as azobenzene)	nd
39B	fluoranthene	nd
40B	4-chlorophenyl phenyl ether	nd
41B	4-bromophenyl phenyl ether	nd
42B	bis(2-chloroisopropyl)ether	nd
43B	bis(2-chloroethoxy)methane	nd
52B	bexachlorobutadiene	nd
53B	hexachlorocyclopentadiene	nd
54B	isophorone	nd
55B	naphthalene	nd
56B	nitrobenzene	nd
61B	N-nitrosodimethylamine	nd
62B	N-nitrosodiphenylamine	nd
63B	N-nitrosodi-n-propylamine	nd
66B	bis(2-ethylhexyl)phthalate	9 ✓
67B	butyl benzyl phthalate	nd
68B	di-n-butyl phthalate	nd
69B	di-n-octyl phthalate	nd
70B	diethyl phthalate	nd
71B	dimethyl phthalate	nd
72B	benzo(a)anthracene	nd
73B	benzo(a)pyrene	nd
74B	3,4-benzofluoranthene	nd
75B	benzo(k)fluoranthene	nd
76B	chrysene	nd
77B	acenaphthylene	nd
78B	anthracene	nd
79B	benzo(ghi)perylene	nd
80B	fluorene	nd
81B	phenanthrene	nd
82B	dibenzo(a,h)anthracene	nd
83B	indeno(1,2,3-cd)pyrene	nd
84B	pyrene	nd

PESTICIDE/HERBICIDE REPORT FORM

Sample ID LW 29D — ES ID E20626

Aliquot analyzed 1ℓ

Date Received 4/29-82 — Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ — Chemist LB — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	0.82
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB Well # 29D

ES ID E209551

Aliquot analyzed 1L

Date Received 18 August 1982

Detector Used: Coulson, (EC) Flame, PID

Date analyzed 26 Aug 82

Chemist HF

Approved

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	0.061 0.104
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	
2,4,5,T	0.001	
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

no ident. Fiable herbicide peaks

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW #390

ES ID 820959

Aliquot Analyzed 1l

Date Received 18 August 1982

Detector Used: (EC) Coulson, Flame, PID

Date Analyzed 26 August 1982

Chemist HF

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB MW #290 — ES ID 0626

Aliquot analyzed _____

Date Received 29 April 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<0.005	
Arsenic	p,h,c,d,o	—	10	<0.05	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<0.01	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	<0.05	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<0.05	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<0.01	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.0026	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<0.05	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<0.01	
Silicon		10	—		

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Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<0.05	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	0.07	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

ADDITIONAL ANALYSES
STAGE I MONITORING WELLS

9

ANALYSIS RESULTS

McClellan AFB

DATE RECEIVED: 14 Aug 87
DATE REQUESTED:
REQUESTED BY:
PROJECT NUMBER: 9792

ANALYSIS PERFORMED

ANALYSIS	ALIPHATIC G&O	CYANIDE	CRESYLIC ACID	~~HERB/ PAD~~	~~HERB/ 24ST~~	~~HERB/ SILVEX~~	~~PEST: Lindane~~	~~PEST: ABHC~~	~~PEST: Hept. Epox.~~	~~PEST:~~	~~PEST:~~	~~PEST:~~
UNITS	mg/l	mg/l	mg/l		Herbs & pests see individual sheets							
SAMPLE IDENTIFICATION					Well #							
820924 20D	1.8	L.02	—		20D							
820926 20S	270. / 560.	L.02	—		20S							
820928 21D		.05	—		21D							
820929 21S		L.02	—		21S							
820930 22D		L.02	—		22D							
820931 22S		L.02	—		22S							
820932 23D		L.02	—		23D							
820933 23S		L.02	—		23S							
820934 24D		L.02	—		24D							
820935 24S		L.02	—		24S							
25D 820936		L.02	—		25D							
25S 820937		.15	—		25S							
26D 820938		L.02	<5		26D							
26S 820939		.02	<5		26S							
27D 820940		* L.02	—		27D							
27S 820941		L.02	—		27S							
ANALYST	DP	√ X										

* Average of quality assurance dupl...

ANALYSIS RESULTS

DATE RECEIVED: 18 Aug 82
DATE REQUESTED:
REQUESTED BY:
PROJECT NUMBER: 7792

McClellan AFB

ANALYSIS PERFORMED

SAMPLE IDENTIFICATION	ANALYSIS	CN⁻	Herbs & pests see individual sheets							PCB's		
	UNITS	mg/l	(well #)							ppb		
820 949 16S		.02	16S									
950 16D		L.02	16D									
951 17S		L.02	17S									
952 17D		*L.02	17D									
953 18S		L.02	18S									
954 18D		L.02	18D									
955 19S		L.02	19S									
956 19D		L.02	19D									
957 28D		L.02	28D									
958 29S		.95	29S									
959 29D		L.02	29D									
960 30S		L.02	30S									
961 31S		L.02	31S									
962 14		.02	14									
ANALYST		VH								HF		

* Average of quality assurance duplicates

fes-e

APPENDIX M

ANALYTICAL DATA
STAGE II MONITORING WELLS

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

9/29

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering-Science CAL LAB NO. 15245-1

CLIENT I.D. Well #33S

	VOLATILES	ug/l or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	5
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	30
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	2000
88V	vinyl chloride	ND

ND = Not detected

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

9/29

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15245-1

CLIENT I.D. Well #33S

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	68
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB ES ID 821054

Well # 335 Aliquot analyzed 2.2ml

Date Received 10/1/82 Detector Used: Coulson, EC, Flame, PID

Date analyzed 17Oct82 Chemist MSB Approved _____

	Detection Limits	Found (ppb)
Aldrin	0.003	<0.003
Alpha BHC	0.002	<0.002
Beta BHC	0.004	<0.004
Delta BHC	0.004	0.066
Gamma BHC (lindane)	0.002	<0.002
Chlordane	0.04	<0.04
DDD (TDE)	0.012	<0.012
DDE	0.006	<0.006
DDT	0.016	<0.016
Dieldrin	0.006	<0.006
Endosulfan I	0.005	<0.005
Endosulfan II	0.01	<0.01
Endosulfan sulfate	0.03	<0.03
Endrin	0.009	<0.009
Heptachlor	0.002	<0.002
Heptachlor epoxide	0.004	<0.004
Methoxychlor	0.02	<0.02
Toxaphene	0.40	<0.40
2,4,D	0.001	0.134
2,4,5,T	0.001	<.001
2,4,5 TP (Silvex)	0.002	<.002
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW 335

ES ID 821054

Aliquot Analyzed 2.20 µL

Date Received 1 October 1982

Detector Used: EC, Coulson, Flame, PID

Date Analyzed 17 October 1982 Chemist MSB Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB Well # 335 — ES ID 821054

Aliquot analyzed _____

Date Received 10/1/82 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected ug/l	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<10	
Arsenic	p,h,c,d,o	---	10	<50	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<10	
Calcium		50	---		
Chromium (+3)	p,h,c,d,o	20	1	<50	
Chromium (+6)	c	---	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<50	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	18	
Lithium		50	---		
Magnesium		1	---		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	---	0.5	<0.5	
Molybdenum	c	500	---		
Nickel	p,c,o	40	1	<40	
Potassium		10	---		
Selenium	p,h,c,d	---	10	<10	
Silicon		10	---		

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MW33 821054(CONT)

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<50	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<20	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

9/29

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering-Science CAL LAB NO. 15245-2

CLIENT I.D. Well #36S

	VOLATILES	ug/l or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	5
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

California Analytical Laboratories, Inc.

5995 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

9/29

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering-Science

CAL LAB NO. 15245-2

CLIENT I.D. #36S

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	bexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	54
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB Well # 365 ES ID 821055

Aliquot analyzed 2.65 µl

Date Received 10/1/82 Detector Used: Coulson, EC, Flame, PID

Date analyzed 17 Oct. 1982 Chemist NEB Approved

	Detection Limits	Found (ppb)
Aldrin	0.003	<0.003
Alpha BHC	0.002	<0.002
Beta BHC	0.004	<0.004
Delta BHC	0.004	0.052
Gamma BHC (lindane)	0.002	0.015
Chlordane	0.04	<0.04
DDD (TDE)	0.012	<0.012
DDE	0.006	<0.006
DDT	0.016	<0.016
Dieldrin	0.006	<0.006
Endosulfan I	0.005	<0.005
Endosulfan II	0.01	<0.01
Endosulfan sulfate	0.03	<0.03
Endrin	0.009	<0.009
Heptachlor	0.002	<0.002
Heptachlor epoxide	0.004	0.01
Methoxychlor	0.02	<0.02
Toxaphene	0.40	<0.40
2,4,D	0.001	0.56
2,4,5,T	0.001	<0.001
2,4,5 TP (Silvex)	0.002	<.002
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW #365

ES ID 821055

Aliquot Analyzed 2.65 µl

Date Received 1 October 1982

Detector Used: EC, Coulson, Flame, PID

Date Analyzed 7 October 1982

Chemist MSG

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB Well #365 ES ID 821055

Aliquot analyzed _____

Date Received 10/1/82 Method Used _____

Date analyzed _____ Chemist _____ Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected ug/L	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<10	
Arsenic	p,h,c,d,o	---	10	<50	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<10	
Calcium		50	---		
Chromium (+3)	p,h,c,d,o	20	1	<50	
Chromium (+6)	c	---	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<50	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	19	
Lithium		50	---		
Magnesium		1	---		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	---	0.5	<0.5	
Molybdenum	c	500	---		
Nickel	p,c,o	40	1	<40	
Potassium		10	---		
Selenium	p,h,c,d	---	10	10.	
Silicon		10	---		

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MW 3-5 821055(cont)

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<50	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<5.0	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

California Analytical Laboratories, Inc.

5895 Power Inn Road
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(916)-381-5105

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PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering-Science CAL LAB NO. 15245-3

CLIENT I.D. Well #37S

	VOLATILES	µg/L or µg/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

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PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering-Science

CAL LAB NO. 15245-3

CLIENT I.D. Well #37S

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB ES ID 821049

Well # 37S Aliquot analyzed _____

Date Received 10/1/82 Detector Used: Coulson, EC, Flame, PID

Date analyzed 2Nov.1982 Chemist MSB Approved _____

	Detection Limits	Found (ppb)
Aldrin	0.003	<0.003
Alpha BHC	0.002	<0.002
Beta BHC	0.004	<0.004
Delta BHC	0.004	0.121
Gamma BHC (lindane)	0.002	<0.002
Chlordane	0.04	<0.04
DDD (TDE)	0.012	<0.012
DDE	0.006	<0.006
DDT	0.016	<0.016
Dieldrin	0.006	<0.006
Endosulfan I	0.005	<0.005
Endosulfan II	0.01	<0.01
Endosulfan sulfate	0.03	<0.03
Endrin	0.009	<0.009
Heptachlor	0.002	<0.002
Heptachlor epoxide	0.004	<0.004
Methoxychlor	0.02	<0.02
Toxaphene	0.40	<0.40
2,4,D	0.001	<.001
2,4,5,T	0.001	0.004
2,4,5 TP (Silvex)	0.002	<.002
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW #37 S

ES ID 821049

Aliquot Analyzed

Date Received 1 October 1982

Detector Used: EC, Coulson, Flame, PID

Date Analyzed 2 November 1982

Chemist MSB

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB Well #375 ES ID 821049

Aliquot analyzed _____

Date Received 10/1/82 Method Used _____

Date analyzed _____ Chemist _____ Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected ug/L	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<10	
Arsenic	p,h,c,d,o	---	10	<50	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<10	
Calcium		50	---		
Chromium (+3)	p,h,c,d,o	20	1	<50	
Chromium (+6)	c	---	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<50	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	10	
Lithium		50	---		
Magnesium		1	---		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	---	0.5	<0.5	
Molybdenum	c	500	---		
Nickel	p,c,o	40	1	<40	
Potassium		10	---		
Selenium	p,h,c,d	---	10	<10.	
Silicon		10	---		

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821049(CONT)

MW375

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<50	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<20	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

California Analytical Laboratories, Inc.

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9/14

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15174-1

CLIENT I.D. Well #395

	VOLATILES	ug/l or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

California Analytical Laboratories, Inc.

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SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

9/14

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15174-1

CLIENT I.D. Well 395

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

California Analytical Laboratories, Inc.

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Sacramento, California 95824
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9/29

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering-Science CAL LAB NO. 15245-5

CLIENT I.D. #40S

	VOLATILES	ug/l or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	5
88V	vinyl chloride	ND

ND = Not detected

California Analytical Laboratories, Inc.

5995 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

9/29

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering-Science

CAL LAB NO. 15245-5

CLIENT I.D. Well #40S

ACID COMPOUNDS	µg/L
21A 2,4,6-trichlorophenol	ND
22A p-chloro-m-cresol	ND
24A 2-chlorophenol	ND
31A 2,4-dichlorophenol	ND
34A 2,4-dimethylphenol	ND
57A 2-nitrophenol	ND
58A 4-nitrophenol	ND
59A 2,4-dinitrophenol	ND
60A 4,6-dinitro-o-cresol	ND
64A pentachlorophenol	ND
65A phenol	ND

BASE/NEUTRAL COMPOUNDS	µg/L
1B acenaphthene	ND
5B benzidine	ND
8B 1,2,4-trichlorobenzene	ND
9B hexachlorobenzene	ND
12B hexachloroethane	ND
18B bis(2-chloroethyl)ether	ND
20B 2-chloronaphthalene	ND
25B 1,2-dichlorobenzene	ND
26B 1,3-dichlorobenzene	ND
27B 1,4-dichlorobenzene	ND
28B 3,3'-dichlorobenzidine	ND
35B 2,4-dinitrotoluene	ND
36B 2,6-dinitrotoluene	ND
37B 1,2-diphenylhydrazine (as azobenzene)	ND
39B fluoranthene	ND
40B 4-chlorophenyl phenyl ether	ND

BASE/NEUTRAL COMPOUNDS	µg/L
41B 4-bromophenyl phenyl ether	ND
42B bis(2-chloroisopropyl)ether	ND
43B bis(2-chloroethoxy)methane	ND
52B bexachlorobutadiene	ND
53B hexachlorocyclopentadiene	ND
54B isophorone	ND
55B naphthalene	ND
56B nitrobenzene	ND
61B N-nitrosodimethylamine	ND
62B N-nitrosodiphenylamine	ND
63B N-nitrosodi-n-propylamine	ND
66B bis(2-ethylhexyl)phthalate	ND
67B butyl benzyl phthalate	ND
68B di-n-butyl phthalate	ND
69B di-n-octyl phthalate	ND
70B diethyl phthalate	ND
71B dimethyl phthalate	ND
72B benzo(a)anthracene	ND
73B benzo(a)pyrene	ND
74B 3,4-benzofluoranthene	ND
75B benzo(k)fluoranthene	ND
76B chrysene	ND
77B acenaphthylene	ND
78B anthracene	ND
79B benzo(ghi)perylene	ND
80B fluorene	ND
81B phenanthrene	ND
82B dibenzo(a,h)anthracene	ND
83B indeno(1,2,3-cd)pyrene	ND
84B pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB Well # 40S

ES ID 821051

Aliquot analyzed 2.30 µl

Date Received 10/1/82

Detector Used: Coulson, EC, Flame, PID

Date analyzed 17 Oct, 1982 Chemist MSB Approved _____

	Detection Limits	Found (ppb)
Aldrin	0.003	<0.003
Alpha BHC	0.002	<0.002
Beta BHC	0.004	<0.004
Delta BHC	0.004	0.048
Gamma BHC (lindane)	0.002	<0.002
Chlordane	0.04	<0.04
DDD (TDE)	0.012	<0.012
DDE	0.006	<0.006
DDT	0.016	<0.016
Dieldrin	0.006	<0.006
Endosulfan I	0.005	<0.005
Endosulfan II	0.01	<0.01
Endosulfan sulfate	0.03	<0.03
Endrin	0.009	<0.009
Heptachlor	0.002	<0.002
Heptachlor epoxide	0.004	<0.004
Methoxychlor	0.02	<0.02
Toxaphene	0.40	<0.40
2,4,D	0.001	<.001
2,4,5,T	0.001	<.001
2,4,5 TP (Silvex)	0.002	<.002
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW #405

ES ID 821051

Aliquot Analyzed 2.30 µl

Date Received 1 October 1982

Detector Used: EC, Coulson, Flame, PID

Date Analyzed 12 October 1982

Chemist MSB

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB Well # 405 — ES ID 821051

Aliquot analyzed _____

Date Received 10/1/82 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected ug/L	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<10	
Arsenic	p,h,c,d,o	—	10	<50	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<10	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	<50	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<50	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	13	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.5	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<40	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<10	
Silicon		10	—		

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MW405 821051 (CONT)

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	< 50	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	< 20	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

9/a

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15174-2

CLIENT I.D. Well #415

	VOLATILES	ug/l or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	5
30V	1,2-trans-dichloroethylene	10
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	20
88V	vinyl chloride	ND

ND = Not detected

California Analytical Laboratories, Inc.

5995 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

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PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 15174-2

CLIENT I.D. Well #415

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	4
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan Well 415 — ES ID 821013

Aliquot analyzed 430 µl

Date Received 16 Sept 82 — Detector Used: Coulson, EC, Flame, PID

Date analyzed 17 OCT 82 — Chemist MSB — Approved _____

	Detection Limits	Found (ppb)
Aldrin	0.003	<0.003
Alpha BHC	0.002	<0.002
Beta BHC	0.004	<0.004
Delta BHC	0.004	<0.004
Gamma BHC (lindane)	0.002	<0.002
Chlordane	0.04	<0.04
DDD (TDE)	0.012	<0.012
DDE	0.006	<0.006
DDT	0.016	<0.016
Dieldrin	0.006	<0.006
Endosulfan I	0.005	<0.005
Endosulfan II	0.01	<0.01
Endosulfan sulfate	0.03	<0.03
Endrin	0.009	<0.009
Heptachlor	0.002	<0.002
Heptachlor epoxide	0.004	<0.004
Methoxychlor	0.02	<0.02
Toxaphene	0.40	<0.40
2,4,D	0.001	<.001
2,4,5,T	0.001	<.001
2,4,5 TP (Silvex)	0.002	<.002
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW#415

ES ID 821013

Aliquot Analyzed 6.30 µL

Date Received 16 September 1982

Detector Used: EC, Coulson, Flame, PID

Date Analyzed 17 October 1982 Chemist MSB Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan Well 913 — ES ID 821013

Aliquot analyzed _____

Date Received 16 Sept 82 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected ug/l	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<10	
Arsenic	p,h,c,d,o	---	10	<50	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<5	
Calcium		50	---		
Chromium (+3)	p,h,c,d,o	20	1	<20	
Chromium (+6)	c	---	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<20	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<20	
Lithium		50	---		
Magnesium		1	---		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	---	0.5	<0.5	
Molybdenum	c	500	---		
Nickel	p,c,o	40	1	<40	
Potassium		10	---		
Selenium	p,h,c,d	---	10	<10	
Silicon		10	---		

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MW41S (Continued)

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<10	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<10	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

9/27

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering-Science CAL LAB NO. 15245-6

CLIENT I.D. Well #42S

	VOLATILES	ug/L or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

California Analytical Laboratories, Inc.

6985 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

9/27

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering-Science

CAL LAB NO. 15245-6

CLIENT I.D. Well #42S

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB ES ID 821048

Well # 42S

Aliquot analyzed 3.20 µl

Date Received 10/1/82 Detector Used: Coulson, EC, Flame, PID

Date analyzed 19 Oct, 1982 Chemist MSB Approved _____

	Detection Limits	Found (ppb)
Aldrin	0.003	<0.003
Alpha BHC	0.002	<0.002
Beta BHC	0.004	<0.004
Delta BHC	0.004	* 0.051
Gamma BHC (lindane)	0.002	<0.002
Chlordane	0.04	<0.04
DDD (TDE)	0.012	<0.012
DDE	0.006	<0.006
DDT	0.016	<0.016
Dieldrin	0.006	<0.006
Endosulfan I	0.005	<0.005
Endosulfan II	0.01	<0.01
Endosulfan sulfate	0.03	<0.03
Endrin	0.009	<0.009
Heptachlor	0.002	<0.002
Heptachlor epoxide	0.004	<0.004
Methoxychlor	0.02	<0.02
Toxaphene	0.40	<0.40
2,4,D	0.001	<.001
2,4,5,T	0.001	<.001
2,4,5 TP (Silvex)	0.002	0.031
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID Mc Clellan AFB MW #42S

ES ID 821048

Aliquot Analyzed 3.20 µL

Date Received 1 October 1982

Detector Used: EC, Coulson, Flame, PID

Date Analyzed 18 October 1982 Chemist MSB Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected

METALS REPORT FORM

Sample ID McClellan AFB ES ID 821048

Well # 425 Aliquot analyzed _____

Date Received 10/1/82 Method Used _____

Date analyzed _____ Chemist _____ Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected ug/L	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<10	
Arsenic	p,h,c,d,o	---	10	<50	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<10	
Calcium		50	---		
Chromium (+3)	p,h,c,d,o	20	1	<50	
Chromium (+6)	c	---	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<50	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<10	
Lithium		50	---		
Magnesium		1	---		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	---	0.5	<0.5	
Molybdenum	c	500	---		
Nickel	p,c,o	40	1	<40	
Potassium		10	---		
Selenium	p,h,c,d	---	10	<10	
Silicon		10	---		

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MW425 821048(cont.)

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<50	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	40.0	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

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PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15174-3

CLIENT I.D. Well #43S

	VOLATILES	ug/l or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5105

9/14

PRIORITY POLLUTANT DATA SHEET

CLIENT — Engineering Science

CAL LAB NO. 15174-3

CLIENT I.D. Well #435

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
54A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	bexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan Well 433 — ES ID 821012

Aliquot analyzed 3.95 µl

Date Received 16 Sept 82 — Detector Used: Coulson, EC, Flame, PID

Date analyzed 18 Oct, 1982 — Chemist MSB — Approved _____

	Detection Limits	Found (ppb)
Aldrin	0.003	<0.003
Alpha BHC	0.002	<0.002
Beta BHC	0.004	<0.004
Delta BHC	0.004	<0.004
Gamma BHC (lindane)	0.002	0.012
Chlordane	0.04	<0.04
DDD (TDE)	0.012	<0.012
DDE	0.006	<0.006
DDT	0.016	<0.016
Dieldrin	0.006	<0.006
Endosulfan I	0.005	<0.005
Endosulfan II	0.01	<0.01
Endosulfan sulfate	0.03	<0.03
Endrin	0.009	<0.009
Heptachlor	0.002	0.013
Heptachlor epoxide	0.004	0.013
Methoxychlor	0.02	<0.02
Toxaphene	0.40	<0.40
2,4,D	0.001	<.001
2,4,5,T	0.001	<.001
2,4,5 TP (Silvex)	0.002	0.030
DBCP (Dibromochloro propane)		

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW #435

ES ID 821012

Aliquot Analyzed 3.95 µl

Date Received 16 September 1982

Detector Used: EC, Coulson, Flame, PID

Date Analyzed 18 October 1982

Chemist MSB

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan Well 935 — ES ID 8210M

Aliquot analyzed _____

Date Received 16 Sept 82 — Method Used _____

Date analyzed _____ Chemist _____ Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected ug/l	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<10	
Arsenic	p,h,c,d,o	---	10	<50	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	5	
Calcium		50	---		
Chromium (+3)	p,h,c,d,o	20	1	<20	
Chromium (+6)	c	---	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<20	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<20	
Lithium		50	---		
Magnesium		1	---		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	---	0.5	<0.5	
Molybdenum	c	500	---		
Nickel	p,c,o	40	1	<40	
Potassium		10	---		
Selenium	p,h,c,d	---	10	<10	
Silicon		10	---		

MW 43S (Continued)

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<10	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<10	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

California Analytical Laboratories, Inc.

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Sacramento, California 95824
(916)-381-5105

9/13

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15174-4

CLIENT I.D. Well #445

	VOLATILES	ug/l or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	30
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	10
88V	vinyl chloride	ND

ND = Not detected

California Analytical Laboratories, Inc.

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(916) 381-6106

9/13

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 1574-4

CLIENT I.D. [illegible] #445

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	8
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	*
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan Well 44S

ES ID 821010

Aliquot analyzed 350µl

Date Received 16 Sept 82

Detector Used: Coulson, EC, Flame, PID

Date analyzed 18 Oct, 1982

Chemist MSB

Approved _____

	Detection Limits	Found (ppb)
Aldrin	0.003	<0.003
Alpha BHC	0.002	<0.002
Beta BHC	0.004	<0.004
Delta BHC	0.004	<0.004
Gamma BHC (lindane)	0.002	<0.002
Chlordane	0.04	<0.04
DDD (TDE)	0.012	<0.012
DDE	0.006	<0.006
DDT	0.016	<0.016
Dieldrin	0.006	<0.006
Endosulfan I	0.005	<0.005
Endosulfan II	0.01	<0.01
Endosulfan sulfate	0.03	<0.03
Endrin	0.009	< 0.009
Heptachlor	0.002	< 0.002
Heptachlor epoxide	0.004	<0.004
Methoxychlor	0.02	<0.02
Toxaphene	0.40	<0.40
2,4,D	0.001	<.001
2,4,5,T	0.001	<.001
2,4,5 TP (Silvex)	0.002	<.002
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID Mc Clellan AFB MW #445

ES ID 821010

Aliquot Analyzed 3.50 µl

Date Received 16 September 1982

Detector Used: EC, Coulson, Flame, PID

Date Analyzed 18 October 1982

Chemist MSB

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan ~~B21010~~ Well 943 ES ID B21010

Aliquot analyzed _____

Date Received 16 Sept 82 Method Used _____

Date analyzed _____ Chemist _____ Approved _____

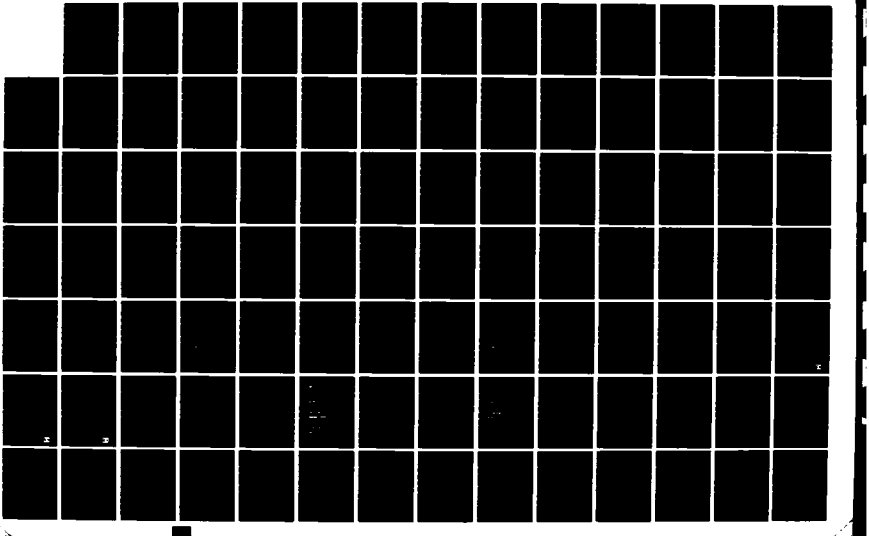
Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<10	
Arsenic	p,h,c,d,o	---	10	<50	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<5	
Calcium		50	---		
Chromium (+3)	p,h,c,d,o	20	1	<20	
Chromium (+6)	c	---	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<20	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<20	
Lithium		50	---		
Magnesium		1	---		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	---	0.5	<0.5	
Molybdenum	c	500	---		
Nickel	p,c,o	40	1	<40	
Potassium		10	---		
Selenium	p,h,c,d	---	10	<10	
Silicon		10	---		

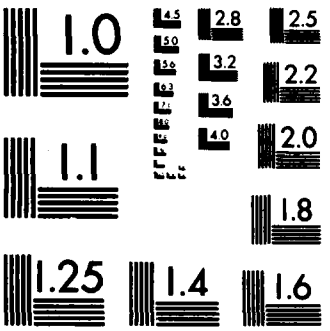
MW 44S (Continued)

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<~~50~~ 10	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	15	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

AD-A133 006 INSTALLATION RESTORATION PROGRAM PHASE II CONFIRMATION 7/8
MCCLELLAN AFB CALIFORNIA VOLUME 2(U)
ENGINEERING-SCIENCE INC ARCADIA CALIF JUN 83
UNCLASSIFIED F33615-80-D-4001 F/G 13/2 NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

9/w

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 15774-5

CLIENT I.D. Well #455

	VOLATILES	ug/l or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

California Analytical Laboratories, Inc.

5836 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 1574-5

CLIENT I.D. well # 455

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	bexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan Well 453 — ES ID 82011

Aliquot analyzed 1.70

Date Received 16 Sept 82 — Detector Used: Coulson, EC, Flame, PID

Date analyzed 1 Nov., 1982 — Chemist MSB — Approved

	Detection Limits	Found (ppb)
Aldrin	0.003	<0.003
Alpha BHC	0.002	<0.002
Beta BHC	0.004	<0.004
Delta BHC	0.004	0.121
Gamma BHC (lindane)	0.002	0.038
Chlordane	0.04	<0.04
DDD (TDE)	0.012	<0.012
DDE	0.006	<0.006
DDT	0.016	<0.016
Dieldrin	0.006	<0.006
Endosulfan I	0.005	<0.005
Endosulfan II	0.01	<0.01
Endosulfan sulfate	0.03	<0.03
Endrin	0.009	<0.009
Heptachlor	0.002	<0.002
Heptachlor epoxide	0.004	<0.004
Methoxychlor	0.02	<0.02
Toxaphene	0.40	<0.40
2,4,D	0.001	<.001
2,4,5,T	0.001	<.001
2,4,5 TP (Silvex)	0.002	0.051
DBCP (Dibromochloro propane)		

AROCLOR (PCB) REPORT FORM

Sample ID Mc Clellan AFB MW #455

ES ID 821011

Aliquot Analyzed 1.70 µL

Date Received 16 September 1982

Detector Used: EC, Coulson, Flame, PID

Date Analyzed 1 November 1982

Chemist MSB

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan Well 953 — ES ID 821011

Aliquot analyzed _____

Date Received 16 Sept 82 — Method Used _____

Date analyzed _____ Chemist _____ Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	< 10	
Arsenic	p,h,c,d,o	---	10	< 50	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	< 5	
Calcium		50	---		
Chromium (+3)	p,h,c,d,o	20	1	< 20	
Chromium (+6)	c	---	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	< 20	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	< 20	
Lithium		50	---		
Magnesium		1	---		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	---	0.5	< 0.5	
Molybdenum	c	500	---		
Nickel	p,c,o	40	1	< 40	
Potassium		10	---		
Selenium	p,h,c,d	---	10	< 10	
Silicon		10	---		

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8/27/82

MW 45S (Continued)

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<10 <50	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<10	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

9/29

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering-Science CAL LAB NO. 15245-7

CLIENT I.D. Well #46S

	VOLATILES	ug/L or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	5
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

California Analytical Laboratories, Inc.

8885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-5125

9/29

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering-Science

CAL LAB NO. 15245-7

CLIENT I.D. #46S

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB WELL# 465 ES ID 821052 D

Aliquot analyzed 420µl

Date Received 10/1/82 Detector Used: Coulson, EC, Flame, PID

Date analyzed 18 Oct, 1982 Chemist MSB Approved

	Detection Limits	Found (ppb)
Aldrin	0.003	<0.003
Alpha BHC	0.002	< 0.002
Beta BHC	0.004	<0.004
Delta BHC	0.004	< 0.004
Gamma BHC (lindane)	0.002	0.016
Chlordane	0.04	<0.04
DDD (TDE)	0.012	<0.012
DDE	0.006	<0.006
DDT	0.016	<0.016
Dieldrin	0.006	<0.006
Endosulfan I	0.005	<0.005
Endosulfan II	0.01	<0.01
Endosulfan sulfate	0.03	<0.03
Endrin	0.009	<0.009
Heptachlor	0.002	<0.002
Heptachlor epoxide	0.004	<0.004
Methoxychlor	0.02	<0.02
Toxaphene	0.40	<0.40
2,4,D	0.001	<.001
2,4,5,T	0.001	<.001
2,4,5 TP (Silvex)	0.002	<.002
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW #465

ES ID 821052

Aliquot Analyzed 4.20 µl

Date Received 1 October 1982

Detector Used: EC, Coulson, Flame, PID

Date Analyzed 18 October 1982

Chemist MSB

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB Well # 46S — ES ID 821052

Aliquot analyzed _____

Date Received 10/1/82 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected ug/L	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<10	
Arsenic	p,h,c,d,o	—	10	<50.	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<10	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	<50	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<50	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	18	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.5	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<40	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<10	
Silicon		10	—		

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8/27/82

1111-35 821052 (CONT)

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	< 50	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	450	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

9/29

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering-Science CAL LAB NO. 15245-8

CLIENT I.D. Well #47S

	VOLATILES	µg/l or µg/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

California Analytical Laboratories, Inc.

5885 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

9/29

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering-Science

CAL LAB NO. 15245-8

CLIENT I.D. Well #47S

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	bexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB Well # 47S

ES ID 821053

Aliquot analyzed 1.45 L

Date Received 10/1 82

Detector Used: Coulson, EC, Flame, PID

Date analyzed 2 Nov, 1982 Chemist MGB Approved

	Detection Limits	Found (ppb)
Aldrin	0.003	<0.003
Alpha BHC	0.002	<0.002
Beta BHC	0.004	<0.004
Delta BHC	0.004	<0.004
Gamma BHC (lindane)	0.002	0.041
Chlordane	0.04	<0.04
DDD (TDE)	0.012	<0.012
DDE	0.006	<0.006
DDT	0.016	<0.016
Dieldrin	0.006	<0.006
Endosulfan I	0.005	<0.005
Endosulfan II	0.01	<0.01
Endosulfan sulfate	0.03	<0.03
Endrin	0.009	<0.009
Heptachlor	0.002	<0.002
Heptachlor epoxide	0.004	<0.004
Methoxychlor	0.02	<0.02
Toxaphene	0.40	<0.40
2,4,D	0.001	<.001
2,4,5,T	0.001	<.001
2,4,5 TP (Silvex)	0.002	0.196
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW # 47 S

ES ID 821053

Aliquot Analyzed 1.45 µL

Date Received 1 October 1982

Detector Used: EC, Coulson, Flame, PID

Date Analyzed 2 November 1982

Chemist MSB

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB Well # 475 — ES ID 821053

Date Received 10/1/82 — Aliquot analyzed _____

Date analyzed _____ — Chemist _____ — Method Used _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected ug/l	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<10	
Arsenic	p,h,c,d,o	—	10	<50	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<10	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	<50	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<50	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	17	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.5	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<40	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<10	
Silicon		10	—		

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MW-7S 821053(CONT)

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<50	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<20	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

9/29

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering-Science CAL LAB NO. 15245-9

CLIENT I.D. Well #49S

	VOLATILES	µg/L or µg/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

California Analytical Laboratories, Inc.

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SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

9/29

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering-Science

CAL LAB NO. 15245-9

CLIENT I.D. Well #49S

ACID COMPOUNDS		µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

BASE/NEUTRAL COMPOUNDS		µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	bexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB ES ID 821050

WELL # 495 Aliquot analyzed 4.35 ml

Date Received 10/1/82 Detector Used: Coulson, EC, Flame, PID

Date analyzed 10/18/82 Chemist MSB Approved _____

	Detection Limits	Found (ppb)
Aldrin	0.003	<0.003
Alpha BHC	0.002	<0.002
Beta BHC	0.004	<0.004
Delta BHC	0.004	<0.004
Gamma BHC (lindane)	0.002	<0.002
Chlordane	0.04	<0.04
DDD (TDE)	0.012	<0.012
DDE	0.006	<0.006
DDT	0.016	<0.016
Dieldrin	0.006	<0.006
Endosulfan I	0.005	<0.005
Endosulfan II	0.01	<0.01
Endosulfan sulfate	0.03	<0.03
Endrin	0.009	<0.009
Heptachlor	0.002	<0.002
Heptachlor epoxide	0.004	<0.004
Methoxychlor	0.02	<0.02
Toxaphene	0.40	<0.40
2,4,D	0.001	<.001
2,4,5,T	0.001	<.001
2,4,5 TP (Silvex)	0.002	<.002
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID McClellan AFB MW# 49S

ES ID 821050

Aliquot Analyzed 4.35 µL

Date Received 1 October 1982

Detector Used: EC, Coulson, Flame, PID

Date Analyzed 18 October 1982

Chemist MSB

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB ES ID 821050
Well # 495 Aliquot analyzed _____
Date Received 10/1/82 Method Used _____
Date analyzed _____ Chemist _____ Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected Light	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<10	
Arsenic	p,h,c,d,o	—	10	<50	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<10	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	<50	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<50	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	16	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.5	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<40	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<10	
Silicon		10	—		

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MW29S 821050(CONT)

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	<50	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	<20	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

9/27

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering-Science CAL LAB NO. 15245-4

CLIENT I.D. Well #38D

	VOLATILES	µg/L or µg/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	55
13V	1,1-dichloroethane	75
14V	1,1,2-trichloroethane	5
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	500
30V	1,2-trans-dichloroethylene	80
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	30
88V	vinyl chloride	ND

ND = Not detected

California Analytical Laboratories, Inc.

8995 POWER INN ROAD
SACRAMENTO, CALIFORNIA 95824
(916) 381-6105

9/27

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering-Science

CAL LAB NO. 15245-4

CLIENT I.D. Well #38D

ACID COMPOUNDS	µg/L
21A 2,4,6-trichlorophenol	ND
22A p-chloro-m-cresol	ND
24A 2-chlorophenol	ND
31A 2,4-dichlorophenol	ND
34A 2,4-dimethylphenol	ND
57A 2-nitrophenol	ND
58A 4-nitrophenol	ND
59A 2,4-dinitrophenol	ND
60A 4,6-dinitro-o-cresol	ND
64A pentachlorophenol	ND
65A phenol	ND

BASE/NEUTRAL COMPOUNDS	µg/L
1B acenaphthene	ND
5B benzidine	ND
8B 1,2,4-trichlorobenzene	ND
9B hexachlorobenzene	ND
12B hexachloroethane	ND
18B bis(2-chloroethyl)ether	ND
20B 2-chloronaphthalene	ND
25B 1,2-dichlorobenzene	ND
26B 1,3-dichlorobenzene	ND
27B 1,4-dichlorobenzene	ND
28B 3,3'-dichlorobenzidine	ND
35B 2,4-dinitrotoluene	ND
36B 2,6-dinitrotoluene	ND
37B 1,2-diphenylhydrazine (as azobenzene)	ND
39B fluoranthene	ND
40B 4-chlorophenyl phenyl ether	ND
41B 4-bromophenyl phenyl ether	ND
42B bis(2-chloroisopropyl)ether	ND
43B bis(2-chloroethoxy)methane	ND
52B bexachlorobutadiene	ND
53B hexachlorocyclopentadiene	ND
54B isophorone	ND
55B naphthalene	ND
56B nitrobenzene	ND
61B N-nitrosodimethylamine	ND
62B N-nitrosodiphenylamine	ND
63B N-nitrosodi-n-propylamine	ND
66B bis(2-ethylhexyl)phthalate	42
67B butyl benzyl phthalate	ND
68B di-n-butyl phthalate	ND
69B di-n-octyl phthalate	ND
70B diethyl phthalate	ND
71B dimethyl phthalate	ND
72B benzo(a)anthracene	ND
73B benzo(a)pyrene	ND
74B 3,4-benzofluoranthene	ND
75B benzo(k)fluoranthene	ND
76B chrysene	ND
77B acenaphthylene	ND
78B anthracene	ND
79B benzo(ghi)perylene	ND
80B fluorene	ND
81B phenanthrene	ND
82B dibenzo(a,h)anthracene	ND
83B indeno(1,2,3-cd)pyrene	ND
84B pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID McClellan AFB ES ID 821047

WELL #38D Aliquot analyzed 1.70µl

Date Received 10/1/82 Detector Used: Coulson, EC, Flame, PID

Date analyzed 17Oct,1982 Chemist MSB Approved _____

	Detection Limits	Found (ppb)
Aldrin	0.003	<0.003
Alpha BHC	0.002	<0.002
Beta BHC	0.004	0.021
Delta BHC	0.004	<0.004
Gamma BHC (lindane)	0.002	<0.002
Chlordane	0.04	<0.04
DDD (TDE)	0.012	<0.012
DDE	0.006	<0.006
DDT	0.016	<0.016
Dieldrin	0.006	<0.006
Endosulfan I	0.005	<0.005
Endosulfan II	0.01	<0.01
Endosulfan sulfate	0.03	<0.03
Endrin	0.009	<0.009
Heptachlor	0.002	<0.002
Heptachlor epoxide	0.004	<0.004
Methoxychlor	0.02	<0.02
Toxaphene	0.40	<0.40
2,4,D	0.001	<.001
2,4,5,T	0.001	<.001
2,4,5 TP (Silvex)	0.002	<.002
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

AROCLOR (PCB) REPORT FORM

Sample ID Mc Clellan AFB
MW # 38D

ES ID 821047

Aliquot Analyzed 1.70 µL

Date Received 1 October 1982

Detector Used: EC, Coulson, Flame, PID

Date Analyzed 17 October 1982

Chemist MSB

Approved

	Detection Limits (ppb)	Found (ppb)
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Not detected.

METALS REPORT FORM

Sample ID McClellan AFB
Well # 38D
Date Received 10/1/82
Date analyzed _____ Chemist _____

ES ID 821047
Aliquot analyzed _____
Method Used _____
Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected ug/L	Limit
Aluminum		500	50		
Antimony	p,c	500	10	<10	
Arsenic	p,h,c,d,o	—	10	<50	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	<10	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	<50	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	<50	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	<10	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.5	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	<40	
Potassium		10	—		
Selenium	p,h,c,d	—	10	<10	
Silicon		10	—		

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8/27/82

821047 (CONT)

MW 38D

Element	Code	Detection Limit (ppb) Flame	Flameless	ug/L Detected	Limit
Silver	p,h,c,d,o	50	1	< 50	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	90.0	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

ANALYSIS RESULTS

9

Due Oct 15

DATE RECEIVED: 10/1/82
DATE REQUESTED:
REQUESTED BY: JANE NORDHAN
PROJECT NUMBER: 09792.00

McClellan AFB

ANALYSIS PERFORMED

SAMPLE IDENTIFICATION	ANALYSIS	ALIPHATICS	*CRESYLIC ACID	CYANIDE	WELL #
	UNITS	mg/l	PPM	mG/l	
821047		—	—	(<.02)	380
821048		—	—	(<.02)	423
821049		—	—	(<.02)	375
821050		—	—	(<.02)	493
821051		—	(0.026)	(<.02)	405
821052		—	—	(.02)	465
821053		—	—	(<.02)	473
821054		(5.7)	—	(<.02)	335
821055		—	—	(.03)	365
	ANALYST	DP		VH	

* as o-cresol

* Average of quality assurance duplicates

ANALYSIS RESULTS

DATE RECEIVED: 16 Sept 82
DATE REQUESTED:
REQUESTED BY:
PROJECT NUMBER:

McLellan AFB

ANALYSIS PERFORMED

ANALYSIS	CN			WELL #								
UNITS	mg/l											
821009	L.02			39S								
821010	L.02			44S								
821011	L.02			45S								
821012	L.02			43S								
821013	L.02			41S								
ANALYST	VH											

SAMPLE IDENTIFICATION

* Average of quality assurance duplicates

NON-PRIORITY COMPOUNDS DETECTED IN GROUNDWATER SAMPLES

Well	Compound	Concentration (ppb)	Sampling Date
Base Production Wells			
BW17	N-(phenylmethyl)benzenemethanamine	∿ 50	1-11-82
	N-(phenylmethylene)benzenemethanamine	∿ 50	1-11-82
BW28	aroclor[a]	0.24	1-11-82
Base Monitoring Wells			
MW6	tetrahydrofuran	undetermined	3-30-82
MW7	tetrahydrofuran	undetermined	3-29-82
MW8	1,1,2-trichloro-1,2,2-trifluoroethane	undetermined	3-31-82
	hexahydro-2H-Azepin-2-one	undetermined	3-31-82
MW9	N-butylbenzene sulfonamide	undetermined	4-28-82
MW10	chlorocyclohexane	undetermined	3-30-82
	tetrahydrofuran	undetermined	3-30-82
MW12	N-butylbenzene sulfonamide	undetermined	4-29-82
MW13	tetrahydrofuran	undetermined	3-30-82
MW14	tetrahydrofuran	undetermined	3-30-82
	2 isomers of methyl phenol	undetermined	8-18-82
	an isomer of dimethyl phenol	undetermined	8-18-82
	ethylmethyl phenol	undetermined	8-18-82
MW15	N-butylbenzene sulfonamide	undetermined	4-29-82
	N-butylbenzene sulfonamide	undetermined	8-18-82

NON-PRIORITY COMPOUNDS DETECTED IN GROUNDWATER SAMPLES (Continued)

Well	Compound	Concentration (ppb)	Sampling Date
Stage I Shallow Wells			
16S	tetrahydrofuran	undetermined	6-16-82
17S	an isomer of trichlorobenzene	undetermined	6-16-82
	N-butylbenzene sulfonamide	undetermined	8-17-82
19S	atrazine	undetermined	4-28-82
20S	tetrahydrofuran	undetermined	5-25-82
	oily film of undetermined composition	undetermined	5-25-82
	several alkanes	undetermined	8-11-82
21S	tetrahydrofuran	undetermined	6-15-82
22S	hexahydro-2H-Azepin-2-one	undetermined	6-04-82
	methyl cyclohexane	undetermined	6-04-82
23S	tetrahydrofuran	undetermined	4-28-82
	tetrahydrofuran	undetermined	8-13-82
	atrazine	undetermined	4-28-82
	atrazine	undetermined	8-13-82
24S	pentachlorophenol[a]	undetermined	8-12-82
25S	tetrahydrofuran	undetermined	6-15-82
	N-butylbenzene sulfonamide	undetermined	6-15-82
26S	N-butylbenzene sulfonamide	undetermined	8-11-82
27S	tetrahydrofuran	undetermined	6-16-82
	hexahydro-2H-Azepin-2-one	undetermined	6-16-82
	benzothiazole	undetermined	6-16-82
	a dimethylethyl phenol	undetermined	6-16-82
	pentachlorophenol[a]	undetermined	8-12-82
	N-butylbenzene sulfonamide	undetermined	8-12-82
28S	tetrahydrofuran	undetermined	6-16-82
29S	atrazine	undetermined	4-28-82
	atrazine	undetermined	8-16-82
31	an isomer of trichlorobenzene	undetermined	6-16-82

NON-PRIORITY COMPOUNDS DETECTED IN GROUNDWATER SAMPLES (Continued)

Well	Compound	Concentration (ppb)	Sampling Date
Stage I Deep Wells			
19D	N-butylbenzene sulfonamide	undetermined	4-28-82
20D	N-butylbenzene sulfonamide	undetermined	4-28-82
	several alkanes	undetermined	8-11-82
22D	N-butylbenzene sulfonamide	undetermined	4-28-82
23D	N-butylbenzene sulfonamide	undetermined	4-28-82
25D	tetrahydrofuran	undetermined	6-15-82
	N-butylbenzene sulfonamide	undetermined	8-12-82
26D	N-butylbenzene sulfonamide	undetermined	4-28-82
	N-butylbenzene sulfonamide	undetermined	8-11-82
27D	N-butylbenzene sulfonamide	undetermined	4-28-82
	N-butylbenzene sulfonamide	undetermined	8-12-82
28D	tetrahydrofuran	undetermined	6-16-82
29D	N-butylbenzene sulfonamide	undetermined	4-28-82
	atrazine	~100	4-28-82
	atrazine	undetermined	8-16-82
Stage II Shallow Wells			
39S	N-butylbenzene sulfonamide	undetermined	9-14-82
41S	N-butylbenzene sulfonamide	undetermined	9-14-82
44S	N-butylbenzene sulfonamide	undetermined	9-13-82

a Aroclor (a PCB) and pentachlorophenol (an acid compound) are EPA priority pollutants.

APPENDIX N

ANALYTICAL DATA
BUILDING 251 SOIL BORINGS

6/7/82 pam:cw

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Environmental Science CAL LAB NO. 14228-1

CLIENT I.D. Pump #1 North Well

	VOLATILES	ug/L or ug/Kg
2V	acrolein	<5.0
3V	acrylonitrile	<5.0
4V	benzene	<0.5
6V	carbon tetrachloride	<0.5
7V	chlorobenzene	<0.5
10V	1,2-dichloroethane	<0.5
11V	1,1,1-trichloroethane	<0.5
13V	1,1-dichloroethane	<0.5
14V	1,1,2-trichloroethane	<0.5
15V	1,1,2,2-tetrachloroethane	<0.5
16V	chloroethane	<5.0
19V	2-chloroethylvinyl ether	<5.0
23V	chloroform	<0.5
29V	1,1-dichloroethylene	<0.5
30V	1,2-trans-dichloroethylene	<0.5
32V	1,2-dichloropropane	<0.5
33V	1,3-dichloropropylene	<0.5
38V	ethylbenzene	<0.5
44V	methylene chloride	<0.5
45V	methyl chloride	<0.5
46V	methyl bromide	<0.5
47V	bromoform	<0.5
48V	dichlorobromomethane	<0.5
49V	trichlorofluoromethane	<0.5
50V	dichlorodifluoromethane	<0.5
51V	chlorodibromomethane	<0.5
85V	tetrachloroethylene	<0.5
86V	toluene	<0.5
87V	trichloroethylene	<0.5
88V	vinyl chloride	<0.5

ND = Not detected

6/7/82 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Environmental Science

CAL LAB NO. 14723-3

CLIENT I.D. 2-rin. 1 15'

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
18	acenaphthene	ND
58	benzidine	ND
88	1,2,4-trichlorobenzene	ND
98	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID Soil Boring #1 ES ID E2C777

15' 6/4-E2 Aliquot analyzed 1ℓ

Date Received 6/6-E2 Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ Chemist LIB Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	1.4C
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	2.4
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	1.41
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	1.4C
2,4,5,T	0.001	2.03
2,4,5 TP (Silvex)	0.002	0.98
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

METALS REPORT FORM

Sample ID McClellan AFB Boring 1 15' ES ID 820777

Aliquot analyzed _____

Date Received 8 June 1982 Method Used _____

Date analyzed _____ Chemist _____ Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	23.1	
Arsenic	p,h,c,d,o	—	10	137.5	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	1.27	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	124.0	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	28.0	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	11.1	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.1	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	43.5	
Potassium		10	—		
Selenium	p,h,c,d	—	10	23.7	
Silicon		10	—		

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	1.50	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	68.20	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

6/7/82 sample

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. [illegible]

CLIENT I.D. Boring #1, 20 ft

	VOLATILES	ug/L or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

6/7/82 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 1472S-4

CLIENT I.D. Pond 1 20'

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
8	acenaphthene	ND
58	benzidine	ND
88	1,2,4-trichlorobenzene	ND
98	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID Soil Boring #1, 22' 6/4-5.2, from auger

ES ID 826774

Aliquot analyzed 1l

Date Received 6/16-5.2

Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ Chemist MB Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	0.57
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	2.11
Endosulfan I	0.005	2.51
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	0.59
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	3.02
2,4,5,T	0.001	0.81
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

METALS REPORT FORM

Sample ID McClellan AFB Boring 1 22' — ES ID 220774

Date Received 8 June 1982 — Aliquot analyzed ____

Date analyzed ____ — Chemist ____ — Method Used ____ — Approved ____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected mg/L	Limit
Aluminum		500	50		
Antimony	p,c	500	10	1.75	
Arsenic	p,h,c,d,o	—	10	57.0	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	2.07	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	75.0	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	91	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	11.1	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	0.21	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	20.5	
Potassium		10	—		
Selenium	p,h,c,d	—	10	7.5	
Silicon		10	—		

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	0.35	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	54.0	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

6/7/82 sample

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14738-11

CLIENT I.D. #2 Bldg. 251 15'

	VOLATILES	ug/L or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

6/7/82 comple

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14288-5

CLIENT I.D. #2 15' Bldg 251

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
1B	acenaphthene	ND
5B	benzidine	ND
8B	1,2,4-trichlorobenzene	ND
9B	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID Coal Boring #2 — ES ID E20-178

15' 6/7-82 — Aliquot analyzed 1l

Date Received 6/16-82 — Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ — Chemist MB — Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	1.44
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	1.01
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	2.38
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	1.45
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	0.45
2,4,5,T	0.001	0.067
2,4,5 TP (Silvex)	0.002	0.224
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

METALS REPORT FORM

Sample ID McClellan AFB Boring 2 15' ES ID 800778

Aliquot analyzed _____

Date Received 8 June 1982 Method Used _____

Date analyzed _____ Chemist _____ Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	3.12	
Arsenic	p,h,c,d,o	—	10	82.5	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	1.32	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	94.0	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	107.0	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	93.7	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	1.0	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	32.2	
Potassium		10	—		
Selenium	p,h,c,d	—	10	17.2	
Silicon		10	—		

64/18 8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	0.92	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	57.2	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

6/7/82 sample

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 1423-12

CLIENT I.D. #2 20' Bldg 251

	VOLATILES	ug/l or ug/Kg
2V	acrolein	LD
3V	acrylonitrile	LD
4V	benzene	LD
6V	carbon tetrachloride	LD
7V	chlorobenzene	LD
10V	1,2-dichloroethane	LD
11V	1,1,1-trichloroethane	LD
13V	1,1-dichloroethane	LD
14V	1,1,2-trichloroethane	LD
15V	1,1,2,2-tetrachloroethane	LD
16V	chloroethane	LD
19V	2-chloroethylvinyl ether	LD
23V	chloroform	LD
29V	1,1-dichloroethylene	LD
30V	1,2-trans-dichloroethylene	LD
32V	1,2-dichloropropane	LD
33V	1,3-dichloropropylene	LD
38V	ethylbenzene	LD
44V	methylene chloride	LD
45V	methyl chloride	LD
46V	methyl bromide	LD
47V	bromoform	LD
48V	dichlorobromomethane	LD
49V	trichlorofluoromethane	LD
50V	dichlorodifluoromethane	LD
51V	chlorodibromomethane	LD
85V	tetrachloroethylene	LD
86V	toluene	LD
87V	trichloroethylene	LD
88V	vinyl chloride	LD

ND = Not detected

6/7/82 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-8602

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. [illegible]

CLIENT I.D. #2 [illegible] Blu 257

ACID COMPOUNDS	ug/L mg/gram
21A 2,4,6-trichlorophenol	ND
22A p-chloro-m-cresol	ND
24A 2-chlorophenol	ND
31A 2,4-dichlorophenol	ND
34A 2,4-dimethylphenol	ND
57A 2-nitrophenol	ND
58A 4-nitrophenol	ND
59A 2,4-dinitrophenol	ND
60A 4,6-dinitro-o-cresol	ND
64A pentachlorophenol	ND
65A phenol	ND

BASE/NEUTRAL COMPOUNDS	
1B acenaphthene	ND
5B benzidine	ND
8B 1,2,4-trichlorobenzene	ND
9B hexachlorobenzene	ND
12B hexachloroethane	ND
18B bis(2-chloroethyl)ether	ND
20B 2-chloronaphthalene	ND
25B 1,2-dichlorobenzene	ND
26B 1,3-dichlorobenzene	ND
27B 1,4-dichlorobenzene	ND
28B 3,3'-dichlorobenzidine	ND
35B 2,4-dinitrotoluene	ND
36B 2,6-dinitrotoluene	ND
37B 1,2-diphenylhydrazine (as azobenzene)	ND
39B fluoranthene	ND
40B 4-chlorophenyl phenyl ether	ND

BASE/NEUTRAL COMPOUNDS	ug/L mg/gram
41B 4-bromophenyl phenyl ether	ND
42B bis(2-chloroisopropyl)ether	ND
43B bis(2-chloroethoxy)methane	ND
52B hexachlorobutadiene	ND
53B hexachlorocyclopentadiene	ND
54B isophorone	ND
55B naphthalene	*
56B nitrobenzene	ND
61B N-nitrosodimethylamine	ND
62B N-nitrosodiphenylamine	ND
63B N-nitrosodi-n-propylamine	ND
66B bis(2-ethylhexyl)phthalate	ND
67B butyl benzyl phthalate	ND
68B di-n-butyl phthalate	ND
69B di-n-octyl phthalate	ND
70B diethyl phthalate	ND
71B dimethyl phthalate	ND
72B benzo(a)anthracene	ND
73B benzo(a)pyrene	ND
74B 3,4-benzofluoranthene	ND
75B benzo(k)fluoranthene	ND
76B chrysene	ND
77B acenaphthylene	ND
78B anthracene	ND
79B benzo(ghi)perylene	ND
80B fluorene	ND
81B phenanthrene	ND
82B dibenzo(a,h)anthracene	ND
83B indeno(1,2,3-cd)pyrene	ND
84B pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID Building 251 #2 20' ES ID E20779

Aliquot analyzed 1l.

Date Received _____ Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ Chemist LIB Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	1.60
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	0.70
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	2.10
Endosulfan I	0.005	0.56
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	1.70
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	4.14
2,4,5,T	0.001	1.10
2,4,5 TP (Silvex)	0.002	3.53
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

METALS REPORT FORM

Sample ID McClellan AFB Boring 2 20'
ES ID 820779
Aliquot analyzed
Date Received 8 June 1982
Method Used
Date analyzed
Chemist
Approved

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	3.37	
Arsenic	p,h,c,d,o	—	10	52.5	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	1.00	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1	total 85.0	
Chromium (+6)	c	—	10		
Cobalt		50	1		
Copper	p,c,d,o	20	1	26.0	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	13.6	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.1	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	28.5	
Potassium		10	—		
Selenium	p,h,c,d	—	10	11.1	
Silicon		10	—		

8/ ' 82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	0.80	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	54.5	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

6/7/82 sample

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 14225-13

CLIENT I.D. #3 15'

	VOLATILES	ug/L or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

5/7/82 comple

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 14,825-7

CLIENT I.D. Zone 3, 15'

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
8	acenaphthene	ND
58	benzidine	ND
88	1,2,4-trichlorobenzene	ND
98	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID Boring #3 ES ID 820780

15' 6/4-82 Aliquot analyzed 1l

Date Received 6/16-82 Detector Used: Coulson, EC, Flame, PID

Date analyzed _____ Chemist MB Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	1.47
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	172
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	0.69
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	2.35
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	2.06
2,4,5,T	0.001	1.87
2,4,5 TP (Silvex)	0.002	4.80
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

METALS REPORT FORM

Sample ID McClellan AFB Boring 3 15' ES ID 820780

Aliquot analyzed _____

Date Received 8 June 1982 Method Used _____

Date analyzed _____ Chemist _____ Approved _____

Element	Code	Detection Limit (ppb) Flame	Detection Limit (ppb) Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	5.87	
Arsenic	p,h,c,d,o	—	10	80.0	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	0.82	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	85.0	
Chromium (+6)	c	—	10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	26.0	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	12.4	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.1	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	27.5	
Potassium		10	—		
Selenium	p,h,c,d	—	10	13.5	
Silicon		10	—		

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	1.20	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	53.0	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

6/7/82 comple

California Analytical Laboratories, Inc.

5895 Power Inn Road
Sacramento, California 95824
(916)-381-5105

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science CAL LAB NO. 1473-14

CLIENT I.D. #3, 2.0'

	VOLATILES	ug/l or ug/Kg
2V	acrolein	ND
3V	acrylonitrile	ND
4V	benzene	ND
6V	carbon tetrachloride	ND
7V	chlorobenzene	ND
10V	1,2-dichloroethane	ND
11V	1,1,1-trichloroethane	ND
13V	1,1-dichloroethane	ND
14V	1,1,2-trichloroethane	ND
15V	1,1,2,2-tetrachloroethane	ND
16V	chloroethane	ND
19V	2-chloroethylvinyl ether	ND
23V	chloroform	ND
29V	1,1-dichloroethylene	ND
30V	1,2-trans-dichloroethylene	ND
32V	1,2-dichloropropane	ND
33V	1,3-dichloropropylene	ND
38V	ethylbenzene	ND
44V	methylene chloride	ND
45V	methyl chloride	ND
46V	methyl bromide	ND
47V	bromoform	ND
48V	dichlorobromomethane	ND
49V	trichlorofluoromethane	ND
50V	dichlorodifluoromethane	ND
51V	chlorodibromomethane	ND
85V	tetrachloroethylene	ND
86V	toluene	ND
87V	trichloroethylene	ND
88V	vinyl chloride	ND

ND = Not detected

6/7/82 sample

California Analytical Laboratories, Inc.

401 NORTH 16th STREET
SACRAMENTO, CALIFORNIA 95814
(916) 444-0902

PRIORITY POLLUTANT DATA SHEET

CLIENT Engineering Science

CAL LAB NO. 4,#28-8

CLIENT I.D. #3 Draft 20'

	ACID COMPOUNDS	µg/L
21A	2,4,6-trichlorophenol	ND
22A	p-chloro-m-cresol	ND
24A	2-chlorophenol	ND
31A	2,4-dichlorophenol	ND
34A	2,4-dimethylphenol	ND
57A	2-nitrophenol	ND
58A	4-nitrophenol	ND
59A	2,4-dinitrophenol	ND
60A	4,6-dinitro-o-cresol	ND
64A	pentachlorophenol	ND
65A	phenol	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
18	acenaphthene	ND
58	benzidine	ND
88	1,2,4-trichlorobenzene	ND
98	hexachlorobenzene	ND
12B	hexachloroethane	ND
18B	bis(2-chloroethyl)ether	ND
20B	2-chloronaphthalene	ND
25B	1,2-dichlorobenzene	ND
26B	1,3-dichlorobenzene	ND
27B	1,4-dichlorobenzene	ND
28B	3,3'-dichlorobenzidine	ND
35B	2,4-dinitrotoluene	ND
36B	2,6-dinitrotoluene	ND
37B	1,2-diphenylhydrazine (as azobenzene)	ND
39B	fluoranthene	ND
40B	4-chlorophenyl phenyl ether	ND

	BASE/NEUTRAL COMPOUNDS	µg/L
41B	4-bromophenyl phenyl ether	ND
42B	bis(2-chloroisopropyl)ether	ND
43B	bis(2-chloroethoxy)methane	ND
52B	hexachlorobutadiene	ND
53B	hexachlorocyclopentadiene	ND
54B	isophorone	ND
55B	naphthalene	ND
56B	nitrobenzene	ND
61B	N-nitrosodimethylamine	ND
62B	N-nitrosodiphenylamine	ND
63B	N-nitrosodi-n-propylamine	ND
66B	bis(2-ethylhexyl)phthalate	ND
67B	butyl benzyl phthalate	ND
68B	di-n-butyl phthalate	ND
69B	di-n-octyl phthalate	ND
70B	diethyl phthalate	ND
71B	dimethyl phthalate	ND
72B	benzo(a)anthracene	ND
73B	benzo(a)pyrene	ND
74B	3,4-benzofluoranthene	ND
75B	benzo(k)fluoranthene	ND
76B	chrysene	ND
77B	acenaphthylene	ND
78B	anthracene	ND
79B	benzo(ghi)perylene	ND
80B	fluorene	ND
81B	phenanthrene	ND
82B	dibenzo(a,h)anthracene	ND
83B	indeno(1,2,3-cd)pyrene	ND
84B	pyrene	ND

PESTICIDE/HERBICIDE REPORT FORM

Sample ID Boring #3 ES ID 820781

20' 6/4-82 Aliquot analyzed 1l

Date Received 6/16-82 Detector Used: Coulson, (EC), Flame, PID

Date analyzed _____ Chemist LIB Approved _____

	Detection Limits (ppb)	Found (ppb)
Aldrin	0.003	
Alpha BHC	0.002	
Beta BHC	0.004	
Delta BHC	0.004	
Gamma BHC (lindane)	0.002	1.76
Chlordane	0.04	
DDD (TDE)	0.012	
DDE	0.006	
DDT	0.016	
Dieldrin	0.006	
Endosulfan I	0.005	
Endosulfan II	0.01	
Endosulfan sulfate	0.03	
Endrin	0.009	
Heptachlor	0.002	2.29
Heptachlor epoxide	0.004	
Methoxychlor	0.02	
Toxaphene	0.40	
2,4,D	0.001	2.09
2,4,5,T	0.001	1.18
2,4,5 TP (Silvex)	0.002	
DBCP (Dibromochloro propane)		

ENGINEERING-SCIENCE - BERKELEY LABORATORY

METALS REPORT FORM

Sample ID McClellan AFB Boring 3 20' — ES ID 820781

Aliquot analyzed _____

Date Received 8 June 1982 — Method Used _____

Date analyzed _____ — Chemist _____ — Approved _____

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Aluminum		500	50		
Antimony	p,c	500	10	4.55 *	
Arsenic	p,h,c,d,o	—	10	52.5 *	
Barium	h,c,d	1,000	5		
Beryllium	p,c,				
Cadmium	p,h,c,d,o	5	0.1	1.04 *	
Calcium		50	—		
Chromium (+3)	p,h,c,d,o	20	1 } total	80.5	
Chromium (+6)	c	—	.10 }		
Cobalt		50	1		
Copper	p,c,d,o	20	1	22 *	
Gold		100	1		
Iron	d	100	1		
Lead	p,h,c,d,o	100	10	14.9	
Lithium		50	—		
Magnesium		1	—		
Manganese	d	10	0.5		
Mercury	p,h,c,d,o	—	0.5	<0.1	
Molybdenum	c	500	—		
Nickel	p,c,o	40	1	27.2 *	
Potassium		10	—		
Selenium	p,h,c,d	—	10	10.5 *	
Silicon		10	—		

* Average of quality assurance duplicates.

64/18

8/27/82

Element	Code	Detection Limit (ppb) Flame	Flameless	Detected	Limit
Silver	p,h,c,d,o	50	1	0.86 *	
Sodium		10			
Thallium	p,c,				
Tin					
Vanadium	c				
Zinc	p,c,d,o	5	0.05	48.9	

codes: p - EPA priority pollutant
h - EPA hazardous waste
c - Ca. Dept. Health Services hazardous waste
d - EPA drinking water
o - Ocean waters of California

* Average of quality assurance duplicates.

APPENDIX O

AQUIFER TEST DATA

AQUIFER TESTING DATA

PROJECT NAME [illegible]

RECOVERY ✓

PUMPING ____

project # 09792 well # 44S

location North Highlands, CA

formation tested Shallow aquifer ground elevation 5[illegible] elevation of casing ____

distance from test well — depth of well 12' screen interval 83'-93'

date test began 9/28/82 time test began 9:35 a.m. ; h_o = 78.06

water level indicator M-Scope

TIME	1 DEPTH TO WATER (ft)	2 DRAWDOWN (residual) (ft)	3 ELAPSED TIME ~~(min)~~ days (t')	4 t/t'	REMARKS
15:10	90.58	12.52			pump off
15:10:15	90.16	12.10	1.7×10^{-4}	1.56×10^{3}	$t/t' = \frac{t + 0.27 \text{ days}}{t'}$
15:10:45	89.85	11.79	5.2×10^{-4}	5.19×10^{2}	[illegible]
11:30	89.08	11.02	1×10^{-3}	2.60×10^{2}	
11:45	88.79	10.74	1.2×10^{-3}	2.23×10^{2}	
12:00	88.54	10.48	1.4×10^{-3}	1.95×10^{2}	
12:15	88.21	10.15	1.5×10^{-3}	1.74×10^{2}	
12:30	88.04	9.98	1.7×10^{-3}	1.57×10^{2}	
12:45	87.79	9.73	1.9×10^{-3}	1.42×10^{2}	
13:15	87.33	9.27	2.2×10^{-3}	1.21×10^{2}	
13:30	87.08	9.02	2.4×10^{-3}	1.12×10^{2}	
14:00	86.62	8.56	2.8×10^{-3}	9.82×10^{1}	
14:30	86.25	8.19	[illegible]	8.74×10^{1}	
15:00	85.79	7.73	3.5×10^{-3}	7.88×10^{1}	
15:30	85.42	7.36	3.8×10^{-3}	7.17×10^{1}	
16:00	84.96	6.90	4.2×10^{-3}	6.58×10^{1}	
16:30	84.46	6.40	4.5×10^{-3}	6.08×10^{1}	
17:00	84.04	5.98	4.9×10^{-3}	5.65×10^{1}	
17:30	83.58	5.52	5.2×10^{-3}	5.28×10^{1}	
18:00	83.21	5.15	5.6×10^{-3}	4.96×10^{1}	
18:30	82.85	4.79	5.9×10^{-3}	4.67×10^{1}	
19:00	82.48	4.42	6.3×10^{-3}	4.42×10^{1}	
19:30	82.16	4.10	6.6×10^{-3}	4.19×10^{1}	
20:00	81.85	3.79	6.9×10^{-3}	3.99×10^{1}	
20:30	81.56	3.50	7.3×10^{-3}	3.80×10^{1}	

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ES

AQUIFER TESTING DATA

PROJECT NAME _____ RECOVERY X

project # _____ well # 445 PUMPING _____

location _____

formation tested _____ ground elevation _____ elevation of casing _____

distance from test well _____ depth of well _____ screen interval _____

date test began _____ time test began _____

water level indicator _____

TIME	DEPTH TO WATER (ft)	DRAWDOWN (residual) (ft)	ELAPSED TIME (min)	t/t'	REMARKS
15:21:00	81.29	3.23	7.6×10^{-3}	3.63×10^{1}	
21:30	81.02	2.96	8.0×10^{-3}	3.48×10^{1}	
22:00	80.77	2.71	8.3×10^{-3}	3.34×10^{1}	
22:30	80.56	2.50	8.7×10^{-3}	3.21×10^{1}	
23:00	80.36	2.30	9.0×10^{-3}	3.09×10^{1}	
23:30	80.16	2.10	9.4×10^{-3}	2.98×10^{1}	
24:00	80.00	1.94	9.7×10^{-3}	2.88×10^{1}	
24:30	79.83	1.77	1.01×10^{-2}	2.78×10^{1}	
25:00	79.67	1.61	1.04×10^{-2}	2.67×10^{1}	
25:30	79.53	1.47	1.08×10^{-2}	2.61×10^{1}	
26:00	79.40	1.34	1.11×10^{-2}	2.53×10^{1}	
26:30	79.28	1.22	1.15×10^{-2}	2.46×10^{1}	
27:00	79.17	1.11	1.18×10^{-2}	2.39×10^{1}	
27:30	79.08	1.02	1.22×10^{-2}	2.32×10^{1}	
28:00	78.98	0.92	1.25×10^{-2}	2.26×10^{1}	
28:30	—	—	—		
29:00	78.80	0.74	1.32×10^{-2}	2.15×10^{1}	
29:30	78.74	0.68	1.35×10^{-2}	2.09×10^{1}	
30:00	78.67	0.61	1.39×10^{-2}	2.04×10^{1}	
30:30	78.61	0.55	1.42×10^{-2}	2.00×10^{1}	
31:00	78.54	0.48	1.46×10^{-2}	1.95×10^{1}	
31:30	78.51	0.45	1.49×10^{-2}	1.91×10^{1}	
32:00	78.46	0.40	1.53×10^{-2}	1.87×10^{1}	
33:00	78.37	0.31	1.60×10^{-2}	1.99×10^{1}	
34:00	78.31	0.25	1.67×10^{-2}	1.72×10^{1}	

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AQUIFER TESTING DATA

PROJECT NAME _____ RECOVERY X

project # _____ well # 445 PUMPING _____

location _____

formation tested _____ ground elevation _____ elevation of casing _____

distance from test well _____ depth of well _____ screen interval _____

date test began _____ time test began _____

water level indicator _____

TIME	DEPTH TO WATER (ft)	DRAWDOWN (residual) (ft)	ELAPSED TIME (min)	t/t'	REMARKS
15:35:00	78.25	0.19	1.74×10^{-2}	1.66×10^{1}	
36:00	78.22	0.16	1.81×10^{-2}	1.60×10^{1}	
37:00	78.18	0.12	1.88×10^{-2}	1.54×10^{1}	
38:00	78.15	0.09	1.94×10^{-2}	1.49×10^{1}	
39:00	78.13	0.07	2.01×10^{-2}	1.44×10^{1}	
40:00	78.11	0.05	2.08×10^{-2}	1.40×10^{1}	
41:00	78.09	0.03	2.15×10^{-2}	1.35×10^{1}	
42:00	78.08	0.02	2.22×10^{-2}	1.32×10^{1}	
			2.36×10^{-2}	1.24×10^{1}	
			2.50×10^{-2}	1.18×10^{1}	
			2.64×10^{-2}	1.12×10^{1}	
			2.78×10^{-2}	1.07×10^{1}	
			2.92×10^{-2}	1.03×10^{1}	
			3.06×10^{-2}	9.84	
END OF RECOVERY TEST					

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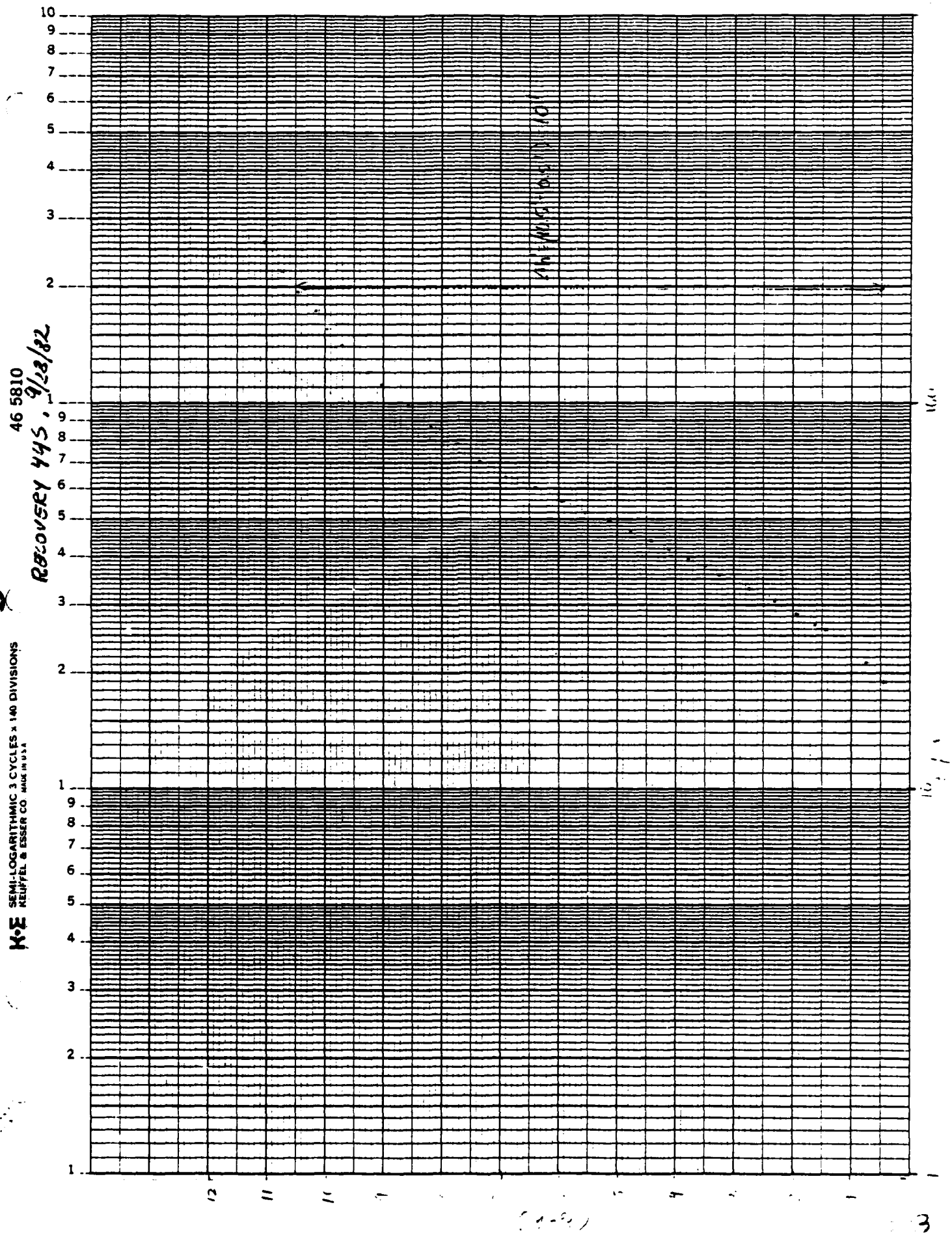

RECOVERY 445, 9/28/82
46 5810
K+E SEMI-LOGARITHMIC 3 CYCLES x 140 DIVISIONS
KEUFFEL & ESSER CO MADE IN U.S.A.

Test Date: 9/23/82
Well # 245
Test : Slug

AQUIFER TESTING DATA

3

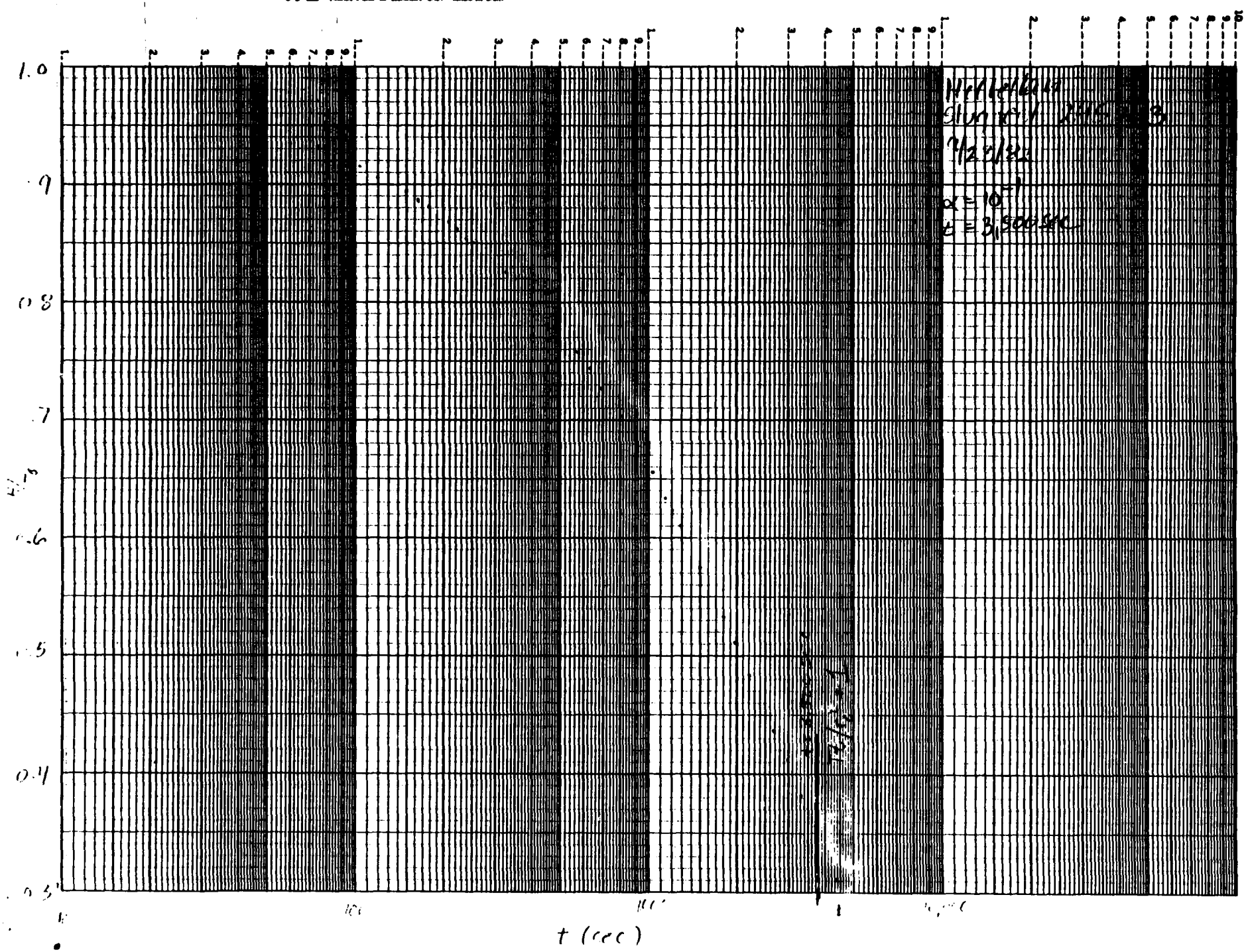
0	1	2	3	0	1	2	3
Elapsed Time (sec)	Depth to Water (Ft)	H	H/Ho	Elapsed Time (sec)	Depth to Water (H) (Ft)	H	H/Ho
15	3.67	86.33	0.959	660	23.67		
45	4.75	85.25	0.947	690	24.50	65.5	0.728
60	5.58	84.42	0.938	720	25.00		
75	6.17	83.83	0.931	750	25.67		
90	7.08	82.92	0.921	780	26.50		
105	7.67	82.33	0.915	810	26.83	63.17	0.702
120	8.33	81.67	0.907	840	27.50		
150	9.58	80.42	0.894	870	28.08		
165	10.17	79.83	0.887	900	28.67		
180	10.75	79.25	0.881	930	29.08	60.92	0.678
210	11.75	78.25	0.869	960	29.67		
225	12.33	77.67	0.863	990	30.25		
240	12.95	77.25	0.853	1020	30.75		
255	13.33	76.67	0.852	1050	31.17	58.83	0.654
270	13.75			1080	31.75		
285	14.25			1110	32.42		
300	14.75			1140	32.92	57.08	0.634
330	15.50	74.40	0.827	1170	33.42		
360	16.33			1200	34.00	56.00	0.622
390	17.25			1230	34.60		
420	18.00			1260	34.83		
450	18.75			1290	35.08	54.92	0.610
480	19.50	70.1	0.779	1320	35.67		
510	20.33			1380	36.50		
540	20.92			1440	37.42		
570	21.67	68.33	0.759	1500	38.33	51.67	0.574
600	22.42			1560	39.00		
630	23.08	66.92	0.744	1620	39.92		

Test Date 9/23/82
Well # 245
Test : Slug

AQUIFER TESTING DATA
#3

0	1	2	3	0	1	2	3
Elapsed Time (sec)	Depth to Water (ft)	H	H/H_0	Elapsed Time (sec)	Depth to Water (ft)	H	H/H_0
1680	40.58			3360	55.60	34.4	0.382
1740	41.33			3420	55.92		
1800	41.92	48.08	0.534	3480	56.33		
1860	42.50			3540	56.75		
1920	43.08			3600	57.08		
1980	44.00	46.0	0.511	3720	57.83	32.17	0.357
2040	44.58			3840	58.50		
2100	45.33			3960	59.33		
2160	45.83			4080	59.92		
2220	46.50	43.5	0.483	4200	60.58		
2280	47.00			4320	61.42		
2340	47.50			4440	62.00	28.00	0.311
2400	48.00			4560	62.50		
2460	48.58			4680	63.08	—	
2520	49.17			4800	63.75		
2580	49.58			4920	64.42		
2640	50.08			5040	65.08		
2700	50.50	39.5	0.439	5160	65.58		
2760	51.08			5280	66.08	23.92	0.266
2820	51.58			5400	66.58		
2880	52.00			5520	67.17		
2940	52.42			5640	67.75		
3000	52.92	37.08	0.412	5760	68.08		
3060	53.33			5880	68.58		
3120	53.75			6000	69.00	21.00	0.233
3180	54.25			6120	69.50		
3240	54.75			6360	69.92		
3300	55.00			10800	81.17		

END OF TEST


K•Σ SEMI-LOGARITHMIC 4 CYCLES X 70 DIVISIONS
KEUFFEL & ESSER CO. MADE IN U.S.A.
46 6010
1.0
.9
0.8
.7
.6
.5
0.4
0.3
t (sec)

Test Date : 9/22/82
Well # 24S
Test : Slug
H_o : 87.7'

SLUG TEST
AQUIFER TESTING DATA
#2

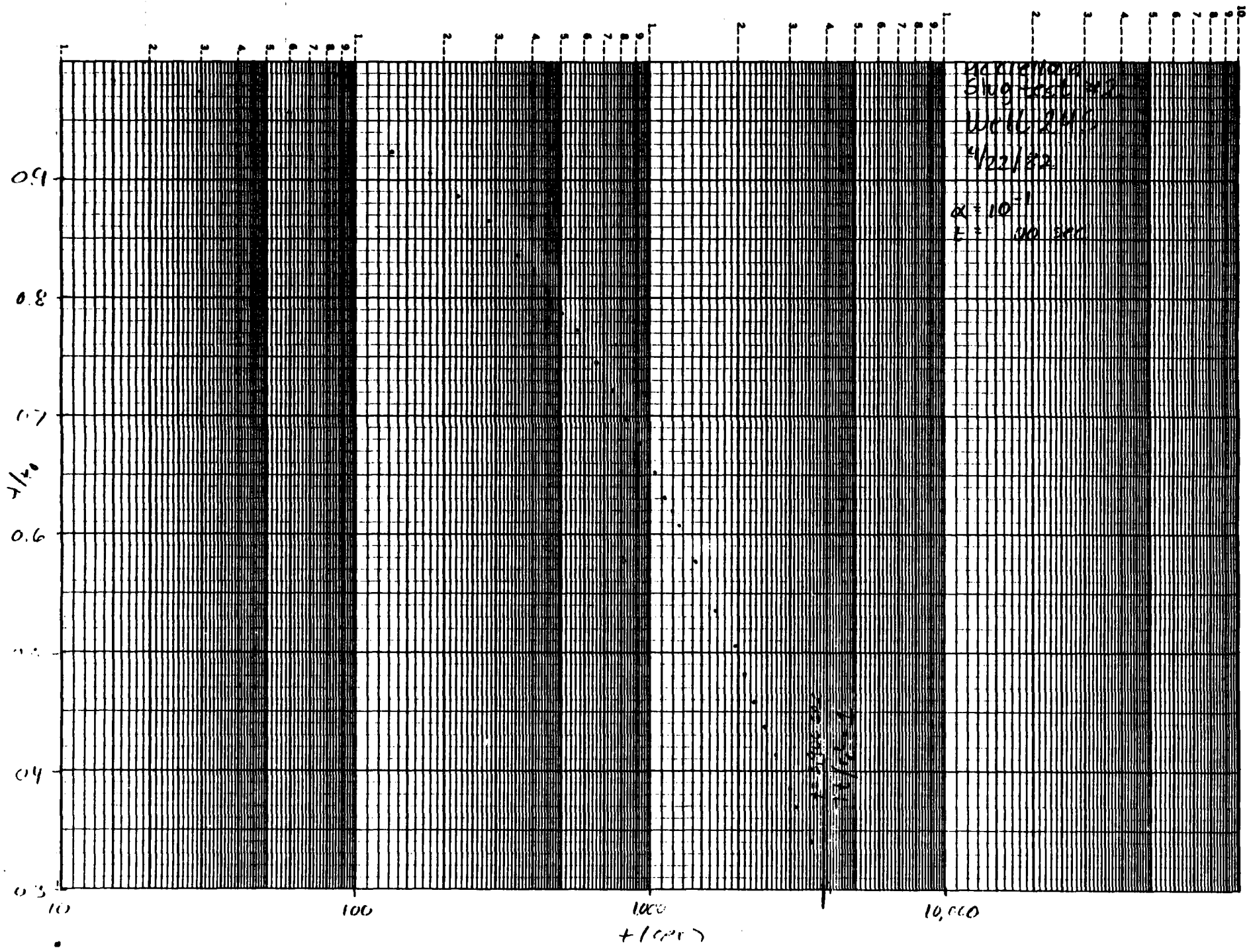
0	1	2	3	0	1	2	3
Elapsed Time (sec)	Depth to Water (H) (ft)	H (87.7-1)	H/H_o	Elapsed Time (sec)	Depth to Water (H) ft	H (87.7-1)	H/H_o
15	1.30	86.40	0.985	480	19.75		
30	2.25	85.45	0.974	495	18.17		
45	3.00			510	18.58	69.12	0.788
60	3.67	84.03	0.958	525	18.92		
75	4.25			540	19.25		
90	5.00	82.70	0.943	570	20.00	67.70	0.772
105	5.50			600	20.75		
120	6.33			630	21.50		
135	6.75	80.95	0.923	660	22.25	65.45	0.746
150	7.29			690	23.00		
180	8.25	79.45	0.906	720	23.75		
195	8.75			750	24.42	63.28	0.722
210	9.33			780	25.08		
225	9.92	77.78	0.887	810	25.75		
240	10.50			840	26.42	61.28	0.699
255	10.92			870	27.00		
285	11.92	75.78	0.864	900	27.67		
315	12.75			930	28.17	59.53	0.679
330	13.42			960	28.83		
360	14.17	73.53	0.838	990	29.42		
375	14.67			1020	—		
390	15.17			1050	30.50	57.20	0.652
405	15.50	72.20	0.823	1080	31.17		
420	15.92			1110	31.67		
435	16.42			1140	32.33	55.37	0.631
450	16.83	70.87	0.807	1170	32.75		
465	17.33			1200	33.25	54.45	0.620

Test Date: 9/22/82
Well # 24S
Test : Slug
H_o : 87.7 FT

AQUIFER TESTING DATA
#2

0	1	2	3	0	1	2	3
Elapsed Time (sec)	Depth to Water (ft)	H (87.7-1)	H/H_o	Elapsed Time (sec)	Depth to Water (ft)	H (87.7-1)	H/H_o
1230	33.75			2820	52.00		
1260	34.25	53.45	0.609	2880	52.42		
1320	35.17			2940	52.92		
1380	36.00			3000	53.50	34.20	0.386
1440	37.00	50.70	0.577	3060	53.75		
1500	38.00			3120	54.25		
1560	38.83			3180	5483	32.87	0.370
1620	39.67			3240	55.25		
1680	40.50	47.20	0.536	3300	55.75		
1740	41.17			3420	56.50		
1800	41.83			3540	57.42	30.28	0.340
1860	42.58			3660	58.00		
1920	43.25	44.45	0.504	3780	58.83		
1980	44.00			3900	59.67		
2040	44.58			4020	60.42	27.28	0.306
2100	45.25	42.45	0.481	4140	61.00		
2160	45.83			4260	61.67		
2220	46.50			4380	62.33		
2280	47.17	40.53	0.459	4500	63.00		
2340	48.17			4800	64.58		
2400	48.50			5100	65.92		
2460	48.92	38.78	0.439	5400	67.33		
2520	49.42			5700	68.58		
2580	49.75			6000	69.67		
2640	50.33			6300	70.67		
2900	51.08	36.62	0.414	6600	71.67		
2760	51.42			6900	72.75		
				10800	81.25		

END OF TEST


K•E SEMI-LOGARITHMIC 4 CYCLES X 70 DIVISIONS
KEUFFEL & ESSER CO. MADE IN U.S.A.
46 6010
0.9
0.8
0.7
0.6
0.4
0.3
100
1000
10,000

APPENDIX P

SAMPLING PROCEDURES AND FIELD DATA SHEETS FOR GROUNDWATER MONITORING WELLS AND BASE PRODUCTION WELLS

APPENDIX P

SAMPLING PROCEDURES FOR GROUNDWATER MONITORING WELLS AND BASE PRODUCTION WELLS McClellan AFB, California

Read the entire sampling procedure before sampling.

1. Unlock the iron casing cap. For multiple-completion wells, determine which well is shallow and which is deep. Each PVC casing is labeled either "S" or "D".

2. Take a static water level measurement to within 1/10 inch.

3. Arrange sampling bottles for the well to be sampled:
   - 1-gallon bottle for GC/MS
   - 1-gallon bottle for herbicides/pesticides/metals
   - 1 VOA bottle for volatiles
   - 1 polyethylene bottle for cyanides
   - 1 glass bottle for cresylic acid, PCB's, or aliphatics (if applicable)

4. Label sampling bottles:
   - McClellan AFB
   - Well number (e.g., 16S)
   - Date
   - Type of analysis to be performed
   - Initials of person sampling

5. Set up rinse containers for the sampler and bailer:
   - Place three 5-gallon buckets near the well to be sampled.
   - Label the buckets "First Rinse", "Acetone", and "Final Rinse".
   - Fill the buckets labeled "First Rinse" and "Final Rinse" half full with deionized water, and the bucket labeled "Acetone" one-quarter full of acetone. Keep lids on the buckets when not used for rinsing.

6. Wear neoprene gloves at all times during sampling and avoid skin contact with the well water. Thoroughly wash skin or clothing that came in contact with well water. When removing the caps from the well casings and during sampling, do not breathe directly over the well.

7. Place the tripod over the well to be sampled. Attach the pump to the steel cable on the tripod. Strong nylon rope (3/8 inch) may be used instead of the tripod and cable if the pump is to be lowered into and raised from the well by hand. Lower the pump into the well to a depth of about 10 feet below the water surface. In shallow wells, lower the pump almost to the bottom of the well. Avoid kinks in the Teflon tubing as the pump is being lowered.

8. Place the generator near the well in a place that will avoid fire danger from the exhaust. Connect the pump to the generator. Turn the generator on.

9. If water is being discharged from the Teflon tubing, proceed to Step 10. If no water is being discharged, as may happen in shallow or silted wells, remove the pump and sample the well by bailing. For bailing, remove about one well volume of water from the well. (For 4-inch wells, 1 foot of water is approximately equivalent to 1/2 gallon.)

   Sample the well with a glass/Teflon or all-Teflon sampler and pour the water into the respective bottles arranged in Step 4. A glass funnel may be used when pouring water into bottles. The VOA bottle must not contain air bubbles; turn the bottle upside down for visual inspection of the sample. Place the samples in an ice chest.

   Rinse the sampler and bailer in the buckets arranged in Step 5. Also clean the part of the cord that was submerged in the well water with the sampler. Take a final water level to within 1/10 inch. Recap the well, lock the iron casing, and proceed to the next well.

10. Well water is being discharged from the Teflon tubing. Direct the water into an empty 5-gallon bucket and estimate the pumping rate

in gallons per minute based upon the time required to fill the bucket.

11. Continue pumping until 4 well volumes have been removed (1 foot of water in 4-inch well is about 1/2 gallon).

12. Collect samples in sampling bottles directly from the Teflon tubing. The VOA bottle must not contain air bubbles; turn the bottle upside down to visually ensure that no air is present.

13. Place all samples in an ice chest.

14. Turn off the generator, remove the pump, and take final water level to within 1/10 inch. Recap the well, lock the iron casing, and proceed to the next well until all wells have been sampled.

15. Keep accurate notes on procedures employed and on all data collected by completing the attached form for each well.

SAMPLING OF MONITORING WELLS
McClellan AFB, California

Well #	Date Sampled	Sampling Procedure		Water Level Before Sampling	Water Level After Sampling	Depth of Well	Well Volumes Removed	Pump Flow Rate (Q)	Samples Collected								Comments
		Pump	Bailer						GC/MS	VOA	Pest/Herb	Cres Acid	PCB	Metals	Cyanide	Aliphatic	

CALCULATION OF CASING VOLUME FOR MONITORING WELL PURGING AND SAMPLING

CALCULATION OF CASING VOLUME

Prior to withdrawing samples, the stagnant water in the well must be removed. Usually this will involve removing one to three casing volumes (the amount of water standing in the well prior to purging).

To calculate the casing volume:

1. Measure depth to water (inches).
2. Measure depth of well (inches), or obtain from records.
3. Calculate water depth (well depth - depth to water).
4. Measure diameter of well casing (inches).
5. Calculate casing volume (V):

$$V\ (\text{cu in}) = \pi \frac{(\text{casing diameter})^2}{4} \times \text{depth of water}$$

$$V\ (\text{gal}) = (\text{cu in}) \times 0.0043\ \text{gal/cu in}$$

Example:

For a 20-foot well (from top of casing) with a water level 9 feet below the top of the casing and a diameter of 2 inches, calculate the casing volume.

$$V\ (\text{cu in}) = \pi \frac{(2.0\ \text{in})^2}{4} \times (11\ \text{ft} \times 12\ \text{in/ft}) = 414.7\ \text{cu in}$$

$$V\ (\text{gal}) = 414.7\ \text{cu in} \times 0.0043\ \text{gal/cu in} = 1.8\ \text{gal}$$

SLUG TEST DATA SHEET

Date _____

H_o: Initial water level
(from ground surface) _____

Well #_____

Casing Elevation: _____

Test #_____

Analyst _____

Time	Elapsed Time (sec)	Depth to Water from Top of Casing (ft)	H = Depth to Water from Ground Level (ft)	H/H_o

Q's PUMP TEST

Date _____

Well # _____

Analyst _____

a Time	b Flow Interval	c Rate of Flow	d Total Flow (gallons) (b x c)

PUMP TEST DATA SHEET

Date _____

H_o: Initial water level
(from ground surface)_____ Well # _____

Casing elevation: _____ Analyst _____

Time	t = Elapsed Time (days)	Depth to Water from Top of Casing (ft)	H = Depth to Water from Ground Level (ft)	Residual Drawdown (H_o-H)	t/t'

$$t/t' = \frac{t' + t}{t'}$$

t = total time pumped
t' = elapsed time since recovery started

APPENDIX Q

FIELD AND SAMPLING EQUIPMENT AND BAILER SELECTION

APPENDIX Q

FIELD AND SAMPLING EQUIPMENT AND BAILER SELECTION

FIELD AND SAMPLING EQUIPMENT

	Item	Use
1.	Well padlock key	Unlock well lock
2.	3-inch (OD) submersible pump (Standard Pump Co., Bardlesville, Oak)	Well pumping
3.	Effluent hose, Teflon-lined, attached to pump	Well sampling
4.	175 feet of 3/8 inch nylon rope and/or	Support pump when lowering and raising pump into and from well
5.	Tripod	
6.	Electronic water-level indicator (battery powered) (Well sounder, Electric Products Co., Fresno, CA)	Water-level readings
7.	10-foot steel measuring tape (1/16-inch calibration)	Measurement of water level
8.	3500-watt generator	Electrical current for pump
9.	5 gallon buckets (3)	Sampler rinsing
10.	5 gallon "Jerry Jugs" (10)	Carrying DI water
11.	Teflon/glass samplers (2)	Well sampling
12.	All-Teflon sampler	Well sampling
13.	Sample containers (per sample)	Sample collection
	(a) 1-gallon glass bottle	GC/MS
	(b) 1-gallon glass bottle	Herbicide/pesticide/metals
	(c) 2 VOA bottles	Volatiles
	(d) 1-quart polyethylene bottle	Cyanide
	(e) 1-quart glass bottle	Cresylic acid, PCB's, or aliphatics

	Item	Use
14.	Glass funnels (wide mouth)	Transfer of sample from sampler to sample containers
15.	Sample bottle labels	Labeling bottles
16.	Deionized water	Rinsing samplers and bailer between samples
17.	Acetone	Rinsing/decontaminating samplers between samples
18.	Neoprene gloves	Avoid skin contact with water
19.	Leather gloves	Pulling rope when removing pump
20.	Bailer (1200-ml capacity)	Bailing wells prior to sampling
21.	175 feet of 3/16-inch nylon rope	Rope support for bailing and sampling
22.	Stopwatch or watch with second hand	Timing flow rate
23.	Ice chests (containing ice)	Storing samples
24.	Non-water soluble felt marker	Labeling sample bottle labels (#15 above)
25.	Well data sheets	Recording well data
26.	Bottle brushes	Cleaning samplers and bailers between sampling
27.	Sodium hydroxide (reagent grade) pellets	Preservative for cyanide samples
28.	Squirt bottle	Rinsing sampler with acetone

ADDITIONAL USEFUL EQUIPMENT

Item	Use
Pipe wrenches (two)	Screw drivers
Electrical tape	Extra rope
Electrical wire	Extra samplers and bailers
Flashlight	Well cap puller
Mirror	Wire stripper
Extension cord	Knife
Gasoline and can	Miscellaneous pipe fittings
Motor oil	Size AA batteries (water-level meter)
Pliers	Plastic funnel

BAILER SELECTION

Three types of bailers are available for well sampling and well purging. The bailer material to be used should be based on the following considerations.

Utilize PVC bailer when:

- No information is available regarding suspected or known contamination.
- Heavy metal contamination is suspected or known to exist, and organic contaminants are suspected or known not to exist.

Utilize stainless steel bailer when:

- Organic contamination is known to exist, and heavy metal contamination is known or suspected not to exist.

Utilize a Teflon bailer when:

- Highly suspect areas for contamination exist.
- Known organic and heavy metal contamination exist.
- Acid-water conditions are known or suspected.

FIELD EQUIPMENT FOR PUMP AND SLUG TESTS

Pump Test

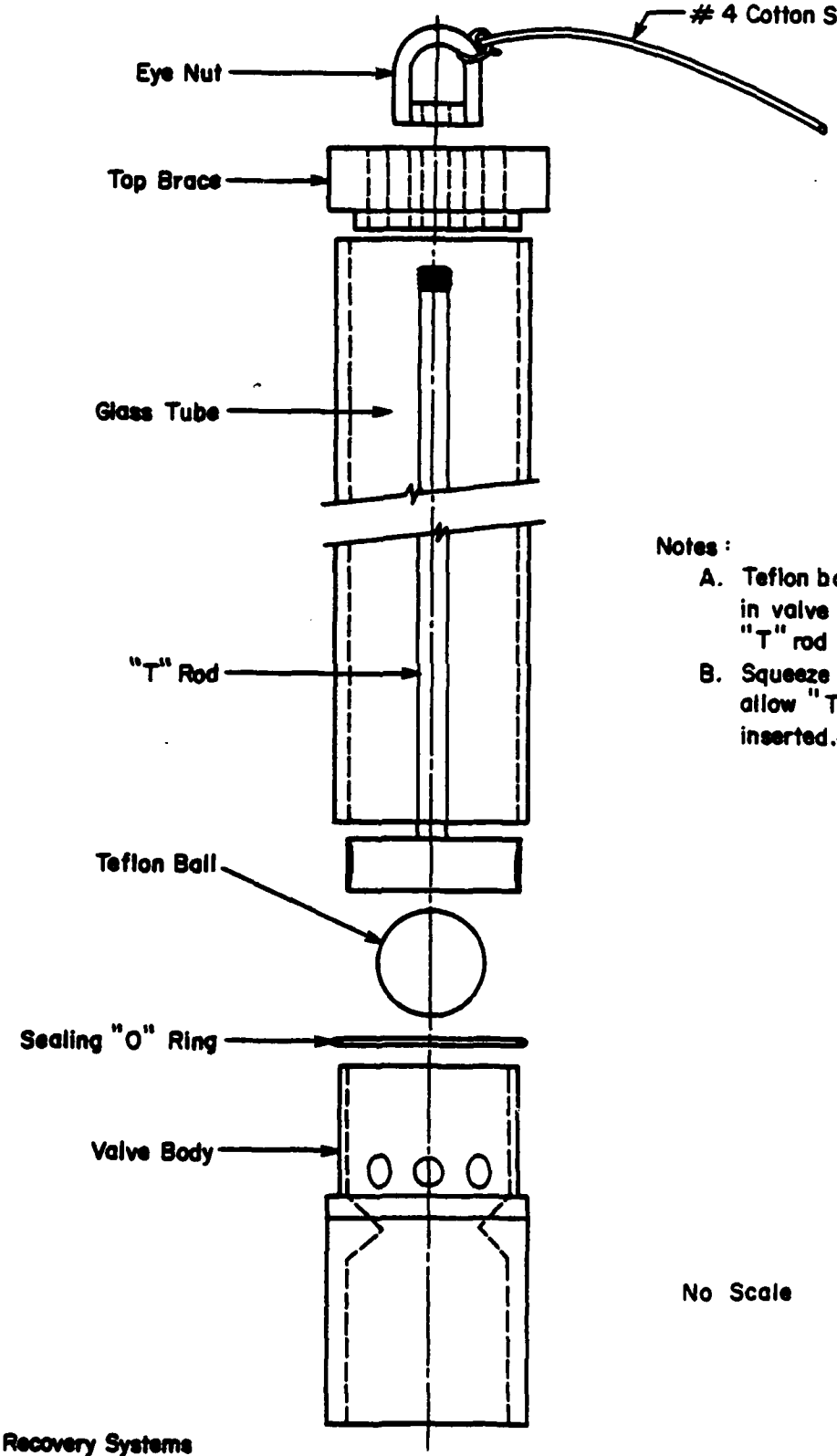
1. Submersible pump with attached effluent hose
2. 3/8-inch nylon rope
3. Electronic water-level meters (three)
4. 10-foot steel measuring tape
5. 3500-watt generator
6. 5-gallon bucket
7. Leather gloves
8. Clock with second hand
9. Data sheets
10. Gasoline, can, and funnel

Slug Tests

1. Two plastic 55-gallon drums, modified with a 3-inch flexible hose attached at the base (outlet with door valve)
2. Electronic water-level meter
3. 10-foot steel measuring tape
4. Clock with second hand
5. Data sheets

FIGURE Q.1

GLASS AND TEFLON SAMPLER



Notes:

A. Teflon ball is to be placed in valve body before "T" rod is inserted.

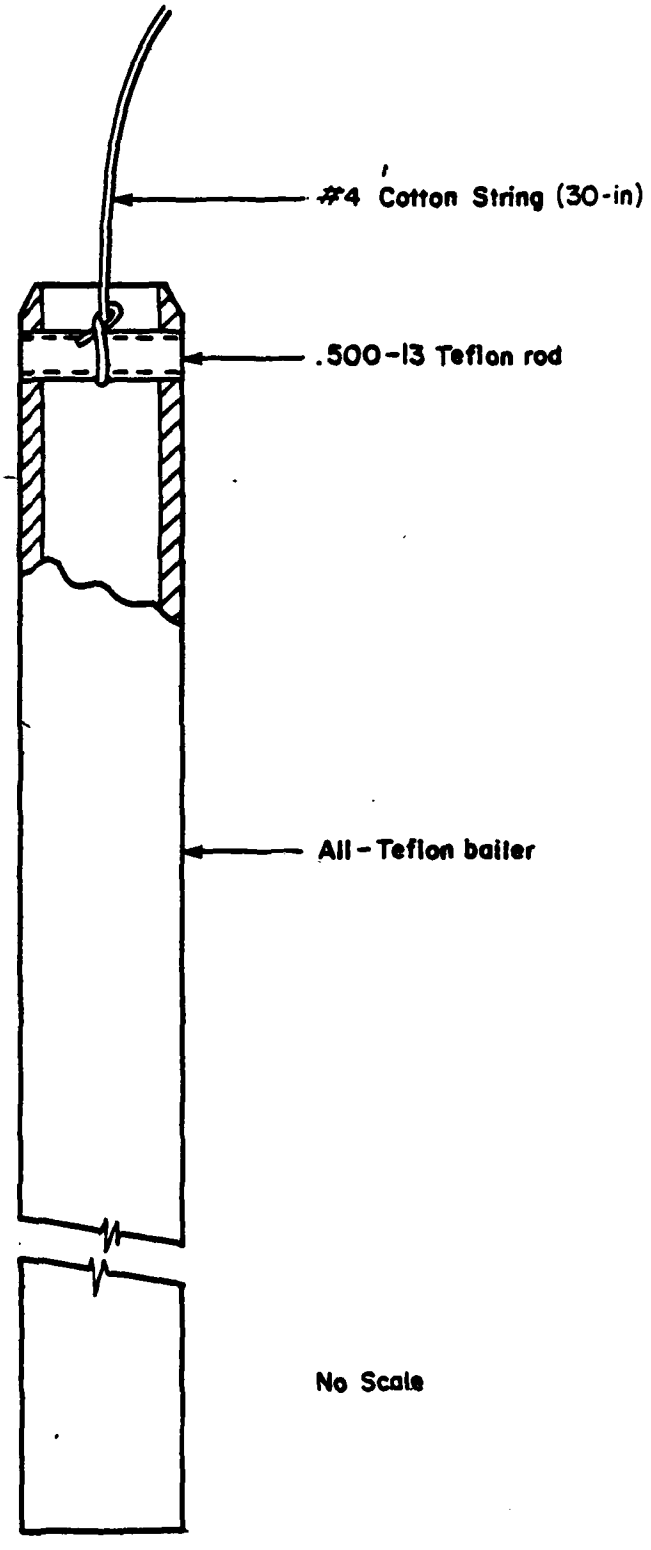
B. Squeeze base at top to allow "T" rod to be inserted.

No Scale

Source: Oil Recovery Systems
Drawing No. C44, 1981

FIGURE Q.2

ALL - TEFLON SAMPLER



Source: Oil Recovery Systems
Drawing No. ORJ-235-1,
1982

APPENDIX R

EQUIPMENT AND ENTRY PROCEDURES FOR INDUSTRIAL WASTE LINE INVESTIGATION

SAFETY EQUIPMENT

	Item	Number
1.	Air line mask and 5-minute egress bottle	3
2.	Air hose (50-foot)	3
3.	Air cylinders (150-minute capacity each)	6
4.	Egress bottle fill hose	1
5.	Air cylinder regulator with Y-connector	1
6.	Gastech 1214 Combustible Gas and O_2 Meter	1
7.	Gas detector pump	1
8.	Gas detector ampules, 20 each for CO, H_2S, HCN, toluene, benzene	20 each
9.	30-minute emergency air pack	1
10.	10,500-cfm, 110-V explosion-proof fan	2
11.	Contractor's first aid kit (1 to 15 employees)	1
12.	Fire hose/nozzle/hydrant wrench/T-handle	1
13.	Body harness and life line	2
14.	Rain suits/gloves/boots/hard hats (sets)	3
15.	500-cfm, 12-V fan and trunk	1
16.	Explosion-proof flashlights	2

LOW-PRESSURE AIR TEST AND MISCELLANEOUS EQUIPMENT

1. Compressor/adaptor/hose
2. Test panel with gages
3. 500-ft hose reel and air winch
4. Winch and pulley
5. Inflatable plugs, 4-inch through 20-inch (2 each)
6. Wayne balls, 4-inch through 20-inch (1 each)
7. Heavy rope, 600 feet
8. Light ropes, 400 feet and 100 feet
9. Twine, 400 feet
10. Pick, crowbar, shovel
11. Ladders, 14-foot (2)
12. Inspection mirror
13. Assorted 2"x4"s for bracing, etc.
14. Miscellaneous tools and saw

INDUSTRIAL SEWER ENTRY PROCEDURE

I. The only ES personnel entering the industrial sewer manholes shall be Steve Deering, except for emergency assistance. He has obtained a medical examination including: medical history, pulmonary function test, chest X-ray, EKG, and a positive health statement by the examining physician. A copy of the statement is attached. The medical examination is in conformance with CAL/OSHA requirements (Cal/OSHA, 1981).

II. Prior to entry to any manholes, the following procedures shall be followed:

A. Shut down and tag pumps (and starters) in Lift Station at Building 243B. Close discharge gate valves.

B. A fire hose with nozzle will be connected to a fire hydrant and be stand-by ready. Power for ventilation will be stand-by ready.

C. Steve Deering will be outfitted with rubber boots, rain suit, rubber gloves, hard hat, respiratory equipment (bottled air supply, plus 5-minute egress bottle), body harness with life line, and hard hat.

D. The sewer will be opened and prior to ventilation will be tested for: lower explosive limit (LEL), HCN, H_2S, toluene, benzene, and CO.

E. The sewer will then be ventilated and retested for any earlier positive tests. Hazards will then be discussed.

F. Steve Deering may then enter the sewer by ladder and proceed with low-pressure air test procedures.

G. One safety person shall be in constant visual contact with Steve Deering and with a second outside person and shall be prepared to assist him in leaving the sewer.

H. A continuous LEL and O2 deficiency monitor with audio alarm will remain in the sewer work area at all times while occupied.

3

AD-A133 006 INSTALLATION RESTORATION PROGRAM PHASE II CONFIRMATION 8/8
MCCLELLAN AFB CALIFORNIA VOLUME 2(U)
ENGINEERING-SCIENCE INC ARCADIA CALIF JUN 83
UNCLASSIFIED F33615-80-D-4001 F/G 13/2 NL



CHARLES E. GRAHAM, M. D.
530 LOMAS SANTA FE DRIVE
SOLANA BEACH, CALIFORNIA 92075

January 13, 1982

To: Engineering Science.

Mr. Stephen Deering received a general medical exam with me and was found to be in good health, free of any detectable illness. A health history was negative and a general exam was also.

A chest X-ray was normal. An ECG and urinalysis were also normal. Vital capacity was normal.

Charles E. Graham MD

APPENDIX S

ANALYTICAL PROCEDURES

APPENDIX S

ANALYTICAL PROCEDURES

PESTICIDES

Organochlorine pesticides were determined according to procedures described in EPA Guidelines Establishing Test Procedures for the Analyses of Pollutants, Method 608. A 1-liter aliquot of the water was extracted with methylene chloride, dried, concentrated to a 10-ml volume, and analyzed by GC/ECD.

HERBICIDES

Chlorinated phenoxy herbicides (2,4-D, 2,4,5-T, and 2,4,5-TP Silvex) were determined according to procedures described in Standard Methods for Examination of Water and Wastewater. A 1-liter acidified sample was extracted with ether, hydrolyzed, esterified using boron trifluoride, and analyzed according to the procedure described in the Federal Register, Vol. 30 (75), Pt. II for NPDES.

TRICHLOROETHYLENE (TCE)

Analysis for TCE was by purge and trap, GC/Coulsen according to EPA Method 601 found in the Federal Register, Vol. 44 (233).

PRIORITY POLLUTANTS

Samples were analyzed for volatile and extractable priority pollutants by EPA Methods 624 and 625, using gas chromatography/mass spectroscopy (GC/MS). Non-priority pollutants were also detected during analysis, and identified using a computer library search.

POLYCHLORINATED BIPHENYLS (PCB's)

Polychlorinated biphenyls (PCB's) were determined according to procedures described in EPA Guidelines Establishing Test Procedures for the Analyses of Pollutants, Method 608. A 1-liter aliquot of the water was extracted with methylene chloride, dried, concentrated to a 10-ml volume, and analyzed by GC/ECD.

METALS

Metals were analyzed in acidified solutions using atomic absorption spectrophotometry. Methodology used was according to EPA Methodology for Chemical Analyses of Water and Wastes. Direct sample aspiration and analysis by flame was performed for seven metals (Cd, Cr, Cu, Pb, Ni, Ag, and Zn). Flameless techniques (graphite furnace) were used for Sb, As, and Se. Mercury was analyzed by the cold vapor technique.

ALIPHATICS

Aliphatics (oil and grease) were determined according to the procedures described in Standard Methods for Examination of Water and Wastewater (SM 503A). "Oil and grease" by definition is any material recovered as a substance soluble in trichlorotrifluoroethane. A 1-liter sample was acidified and successively extracted with trichlorotrifluoroethane. Combined extracts were distilled, dried over vacuum, cooled, and weighed.

CRESYLIC ACID

Samples analyzed for cresylic acid were concentrated (1 l → 4 ml) using methodology modified from EPA Guidelines Establishing Test Procedures for the Analyses of Pollutants, Method 608. Five-microliter volumes were injected into a gas chromatograph equipped with a flame ionization detector. Column packing was 81/100 CARBOPACK C/0.1 percent SP 100. Results were compared with appropriate cresylic acid standards (ultra-high purity standards) injected using the same conditions.

CYANIDE

Cyanides (CN^-) were determined according to the procedures described in Standard Methods for Examination of Water and Wastewater (SM 412D). Cyanide concentrations are determined colorimetrically and compared with appropriate CN^- standards. CN^- in alkaline solution is converted to CNCl by reaction with chloramine-T at pH <8. After the reaction is complete, CNCl forms a red-blue dye on addition of a pyridine-barbituric acid reagent. The absorbance of light is read at 578 nm.

APPENDIX T

EXTRACTION WELL DISCHARGE CALCULATIONS

APPENDIX T

EXTRACTION WELL DISCHARGE CALCULATIONS

For an unconfined aquifer, and applying Dupuit's assumptions to the Thiem equation (Todd, 1966), the discharge from a well would be:

$$Q = \pi K \frac{h_o^2 - h_w^2}{\ln(r_o/r_w)}$$

where:

- Q = discharge
- K = permeability
- h_o = height of water above the impermeable layer
- h_w = height of drawdown in well above the impermeable layer
- r_o = distance from well to the boundary of area of influence
- r_w = radius of well casing

Assuming that h_o = 6 feet, h_w = 1 foot, K = 4.2 gpd/ft^2, and r_w = 0.17 foot, the Q's for various areas of influence (r_o) are tabulated in Table T.1. Note that as the distance between wells is decreased, there is a corresponding increase in flow rate. This relationship between well discharge and radius of influence is illustrated graphically on Figure T.1. The figure indicates that in order to obtain a flow (Q) that would be even marginally acceptable for commercial submersible pumps, the wells would need to be spaced less than one foot apart.

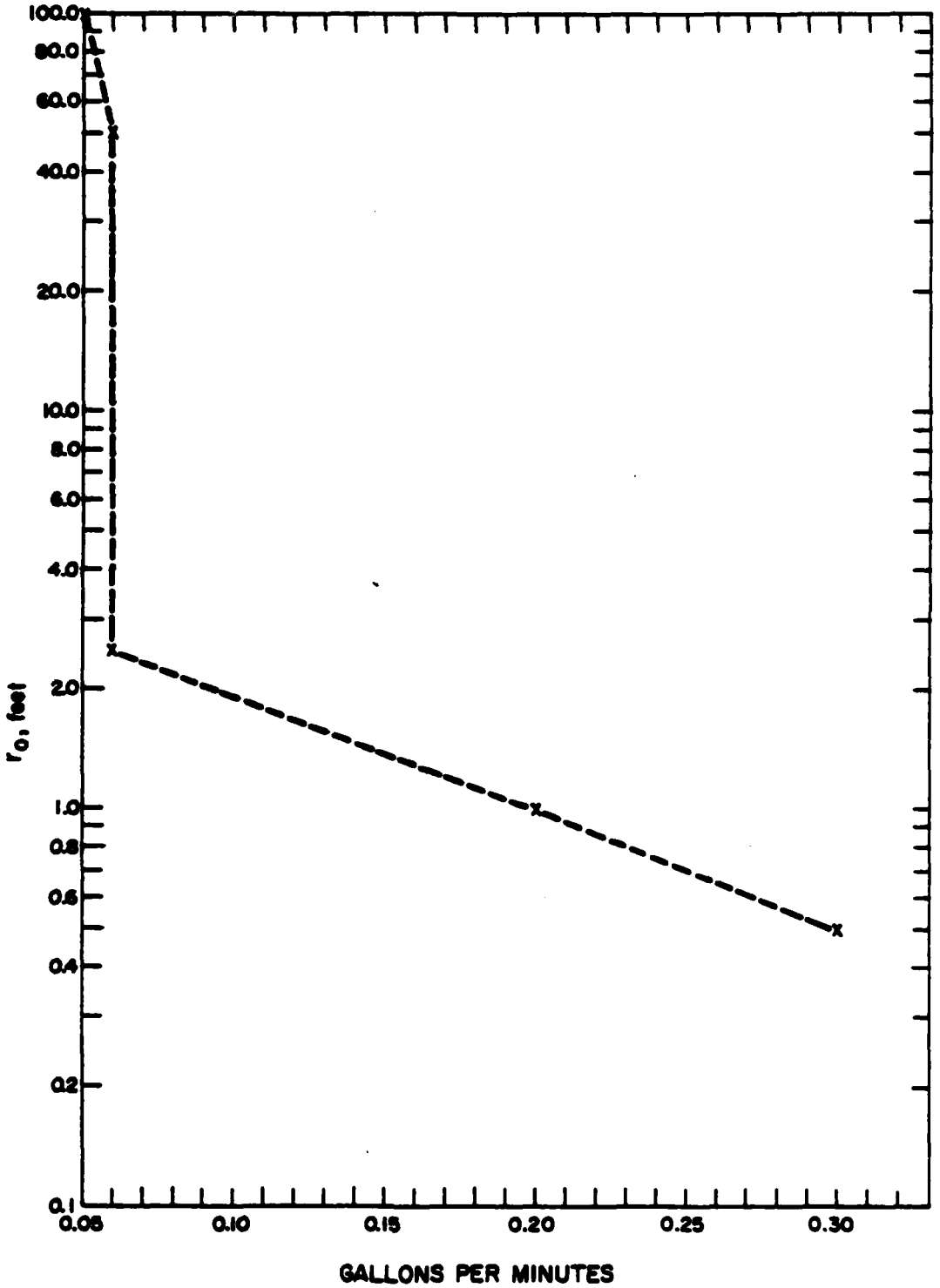
TABLE T.1

EXTRACTION WELL DISCHARGE CALCULATIONS

Radius of Influence, r_o (ft)	Discharge from Well, Q (gpm)
200	0.04
100	0.05
50	0.06
25	0.06
1	0.2
0.5	0.3

FIGURE T-1

DISCHARGE FROM AN EXTRACTION WELL WITH VARIOUS RADIA OF INFLUENCE



APPENDIX U

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APPENDIX U

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APPENDIX V

GLOSSARY

APPENDIX V

GLOSSARY

ACTION LEVEL. Constituent concentration above which regulatory investigation is initiated.

ACTIVATED CARBON. Powdered, granular, or pelleted form of amorphous carbon characterized by very large surface area per unit volume because of an enormous number of fine pores.

AEROBIC. Requiring the presence of oxygen.

AIR STRIPPING. Technique for removal of volatile substances from a solution; employs the principles of Henry's Law to transfer volatile pollutants from a solution of high concentration into an air stream of lower concentration.

AIR TEST. Test in which a section of sewer is pressurized internally with air to determine the rate of air loss and the condition of the sewer with respect to water leakage.

ALIPHATIC MATERIAL. Grease and oil.

ALLUVIAL PLAIN. A plain formed by the deposition of detrital materials eroded and transported by a river.

AQUIFER. Water-bearing geologic formations that are both permeable and porous and so yield water readily to wells.

AQUITARD. Water-retarding materials which are so slightly permeable that water scarcely moves through them even under high pressures.

BW. Base production well.

CABLE TOOLS. Bits and other bottom-hole tools and equipment used to drill boreholes by percussive action, using a cable instead of rods to connect the drilling bit with the machine on the surface.

CARBON ADSORPTION. Adhesion of gases, solutes, or liquids in an extremely thin layer of molecules to the surfaces of activated carbon.

CHELATING AGENT. Chemical or complex which causes an ion, usually a metal, to be joined in the same molecule by both ordinary and coordinate valence forces, resulting in the formation of one or more heterocyclic rings in which the metal cation is part of the ring.

CLOSED BASIN. Basin draining to some depression or pond within its area, from which water is usually lost only by evaporation or percolation.

COAGULATION. Separation or precipitation from a dispersed state of suspensoid particles, resulting from prolonged heating, addition of an electrolyte, or from a condensation reaction between solute and solvent.

COMPOSTING. Use of a mixture of decaying organic matter to fertilize and condition the soil.

CONFINED AQUIFER. An aquifer that contains water under pressure. When punctured by a well, the water rises to a level above the aquifer.

cu ft. Cubic foot.

CW. City well.

DISTILLATION. Process of evaporation and condensation used for separating liquids into various fractions according to their boiling points or boiling ranges.

DOHS. California State Department of Health Services.

DOWNGRADIENT. In the direction of the flow of groundwater.

DRAWDOWN. The magnitude of water level change in a well in response to groundwater withdrawal by pumping, or by seasonal variations.

EDTA. Ethylenediaminetetraacetic acid.

EVAPOTRANSPIRATION. Loss of water to the atmosphere by evaporation from lakes, streams, and soil surfaces and by transpiration from plants.

EXCHANGE. Reaction in which two atoms or ions exchange places in two different molecules or in the same molecule.

FIXATION. Treatment process involving reactions between waste and certain chemicals, resulting in solids which encapsulate, immobilize, or otherwise tie up hazardous components in waste so as to minimize leaching and render waste nonhazardous or more suitable for disposal.

FIXATIVE. Fixing agent used to increase the durability of another substance.

FLOCCULATION. Aggregation or coalescence of solids dispersed in a liquid into a flocculant mass.

FLUVIATILE. Environments dominated by river action.

FRENCH DRAIN. Underground passage for water, consisting of loose stones covered with earth.

ft/log cycle of time. Unit of change in drawdown occurring in a well over one log cycle of time, such as from 10 hours to 100 hours after pumping begins (as plotted on a semi-logarithmic scale).

gal/day/ft. Gallons per day per foot.

gal/day/ft^2. Gallons per day per square foot.

gal/min. Gallons per minute.

GAS SCRUBBING. Removal of gaseous or liquid impurities from a gas stream by the action of a liquid which removes the impurities by dissolving or by chemical combination.

GC/MS. Gas chromatography/mass spectrometry.

gpd/ft. Gallons per day per foot.

gpd/ft^2. Gallons per day per square foot.

gpm. Gallons per minute.

GRADIENT. The rate of descent or ascent (steepness of slope) of any topographic feature, such as streams or hillsides.

GRAVEL-PACKED WELL. Type of well used in a water-bearing formation containing a large proportion of fine-grained material which permits the passage of water at low velocity. Gravel is introduced around the screen or intake section of the well to increase the specific capacity and to prevent extremely fine material from flowing into the well.

GROUNDWATER DISCHARGE. Discharge of water from the saturation zone directly onto the land surface, into a body of surface water, or into the atmosphere.

GROUNDWATER MOUND. Mound-shaped or ridge-shaped feature of a water table or piezometric surface, usually produced by downward percolation of water to water-bearing deposits.

GROUTING. Applying or injecting a fluid mixture of cement and water, or a mixture of cement, sand, and water, into a grout hole.

HARDPAN. A hard, impervious layer of soil cemented together by insoluble materials.

HARM SYSTEM. Hazard Assessment Rating Methodology.

HEAD. Height of the free surface of fluid above any point in a hydraulic system; a measure of the pressure or force exerted by the fluid.

HYDRAULIC GRADIENT. With regard to an aquifer, the rate of change of pressure head per unit of distance of flow at a given point and in a given direction.

INJECTION WELL. Well to inject gas or water, usually under pressure, into a porous soil or rock aquifer.

INTERBEDDED. Having beds or strata lying between other beds with different characteristics.

IRP. Installation Restoration Program.

LANDFARMING. Application of waste onto land and/or incorporation into the surface soil, including the use of such waste as a fertilizer or soil conditioner.

LEACHATE. Liquid that has percolated through solid waste or other permeable material and has extracted soluble dissolved or suspended materials from it.

LEACHING. Separation or dissolving of soluble or particulate constituents from solid waste or other medium by percolation of water or another leaching agent.

LENS. A geologic deposit that is thick in the middle and converges toward the edges, resembling a convex lens.

LENTICULAR. Having the shape of a lentil or double convex lens.

METAMORPHIC. Consisting of material originating from metamorphic rocks which have undergone mineralogical, structural, and chemical changes in response to extreme changes in temperature and pressure.

µg/kg. Micrograms per kilogram.

µg/l. Micrograms per liter.

µmho. Unit of specific conductance; also called µsiemens.

mg/kg. Milligrams per kilogram.

mg/l. Milligrams per liter.

msl. Mean sea level.

MW. Monitoring well

ND. Not detected.

PCB. Polychlorinated biphenyl.

PERCHED WATER. Water in an aquifer which rests on an aquitard that overlies unsaturated but porous material above the normal water table.

PERCOLATION. Flow of moisture by gravity or hydrostatic pressure through the pore spaces of rock or soil.

PERMEABILITY. Capacity of a porous rock, soil, or sediment for transmitting a fluid without damage to the structure of the medium.

PIEZOMETER. A cased boring installed adjacent to a well for measuring water level responses when the well is pumped.

PLUME. Pathway of chemical constituent flow in underground water systems.

POINT SOURCE. Any discernible, confined, and discrete source from which contaminants are or may be discharged.

PORE SPACE. Open space in rock or granular material, not occupied by solid matter. It may be occupied by air, water, or other gaseous or liquid material.

ppb. Parts per billion.

PRESSURE GROUTING. Placing of grout under pressure in void spaces in or around a structure to strengthen the structure or make it more water tight.

psi (gage). The gage pressure measured by the number of pounds-force exerted on an area of 1 square inch.

PVC. Polyvinyl chloride.

RCRA. Resource Conservation and Recovery Act of 1976.

RECHARGE. The replenishment of water to an aquifer by natural or artificial processes.

RECOVERY. Rise of the water level in a well to its previous level before drawdown occurred.

REPRESENTATIVE SAMPLE. Any sample of material which is statistically equivalent to the total material in composition and in physical and chemical properties.

ROTARY DRILLING. Method of drilling wells in which the drill bit is rotated in the hole. The rock is cut or abraded by knives or hard material set in the bottom of the bit and the waste material is carried away by water or mud forced down the inside of the drill pipe and up on the outside.

ROTARY DRYER. Long steel cylinder, slowly revolving, with its long axis slightly inclined, through which the material to be dried passes from inlet to outlet, tumbling about; moisture is removed by rising hot gases.

ROTARY KILN. Long cylindrical kiln lined with refractory, inclined at a slight angle, and rotated at a slow speed.

RWQCB. California State Regional Water Quality Control Board.

SECURE LANDFILL. Permitted hazardous waste disposal site.

SEDIMENTARY TROUGH. A narrow, elongated topographic depression in which sediments are deposited or trapped by discharging streams.

SLURRY. Free-flowing, pumpable suspension of fine solid material in liquid, resembling thin watery mud.

SPECIFIC CAPACITY (SPECIFIC YIELD). The quantity of water which a unit volume of aquifer, after being saturated, will yield by gravity; a measure of the water available to wells.

SPECIFIC CONDUCTANCE. Conductivity of a solution as measured using a standard 1-cm cell; expressed in μmho (μsiemens) at 25°C.

STATIGRAPHIC COLUMN. A vertical cross-section of rocks.

STRATUM. In geology, a single bed or layer of rock which is more or less homogeneous.

TCE. Trichloroethylene.

TRANSMISSIBILITY. The rate at which water flows through a foot of aquifer material.

TUFF. Consolidated volcanic ash, composed largely of fragments (less than 4 millimeters) produced directly by volcanic eruption; much of the fragmented material represents finely crushed crystals and rocks.

UNCONFINED AQUIFER. An aquifer containing water under hydrostatic pressure. When punctured by a well, the water will not rise above the initial level.

UPGRADIENT. Directional source of groundwater flow to a given area; in the direction opposite to the flow of groundwater.

VOA. Volatile organic analysis.

VOA BOTTLE. A 25-ml glass vial with a Teflon screw cap used to store volatile organic compounds for analysis.

VOC. Volatile organic compound.

VOID. Pore or open space in rock or granular material, not occupied by solid matter; also called pore space.

VOLATILE. Evaporating readily at normal temperatures and pressures.

WATER LEVEL. Free water surface of a body of water.

WATER TABLE. The boundary between the zone of saturation and the zone of aeration.

WELL CASING. Metal pipe used to line the borehole of a well.

WELL LOG. Chronological record of the soil and rock formations encountered in the operation of installing a well, with either their thickness or the elevation of the top and bottom of each formation given.

WELL POINT. Device consisting of a perforated metal tube or screen attached to a fitting or driving head end, and designed to permit passage of water; used to remove water from the ground.

WELL SCREEN. Special form of slotted or perforated well casing that admits water from an aquifer consisting of unconsolidated granular material while preventing the granular material from entering the well.


FILM