TABLE I

LIST OF DOCUMENTED WASTE DISPOSED OF AT AREA I BURN PIT
AIBP SWMU 4.8 RFI WORK PLAN
BOEING SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

1	#-81 Blasting Caps
2	(C2H4)4B2H2
3	(C2H5)3B
4	(CH3)2NP(CH3)2
5	(CH3)2PH
6	(CH3)2PH/CH3PH2
7	(CH3)3P
8	(CH3NBH)3
9	(Me2)NBCL2)2
10	(PF2)3N
11	(PF2N)n
12	1 of 13 was CC/DOT 3A480-chlorine
13	1,3-Diphenphinophosphine
14	1,3-diphosphino propane
15	1,4-diphosphino butane
16	-10
17	10% fluorine
18	20% nitroglycerine, 80% methylene chloride
19	30% methylene chloride solution
20	4 bottles unknown liquid
21	49 RDX pellets (SSME)
22	49-75 gram RDX pellets (SSME)
23	5% TEA/TEB cans
24	5% TEAB
25	5% TEAB/RP-1
26	50% propyl nitrate/50% isopropyl alcohol
27	6 samples of FTM
28	75% C2H5OH/ 25% AZDNE
29	a plasticizer (TEGDN)
30	AB-1
31	Acetic Acid
32	acetone
33	Acetone, Contaminated
34	acetone, ethanol, isopropanol, NG, TMETN, DANPE, Al, Mg, Cr, Si
35	acetone, ETOH, ETAC, NC, CAB, DANPE, NG, RDX, AP, RDX, Al2O3, Cr2O3, MgO, Al, Mg, Cr, paper towels, plastic containers
36	acetonitrile
37	acetylene
38	acid
39	Acid-cleaning
40	Acids
41	acids/misc acids
42	additional ampoules from Vanowen. See Appendix A tab.
43	AFN25
44	Alcohol
45	alcohols
46	Alkali metals

47	Alkaline Cleaner
48	Alkaline powder
49	aluminium
50	Aluminum
51	Aluminum Chloride
52	aluminum oxide
53	aluminum powder
54	Aluminum powder 54 gm + Freon TF
55	Alumnium turnings 33 gm saturated with sulfur-base cutting oil + Freon TF
56	amatol/HND
57	ammonia
58	Ammonia cylinders (small)
59	Ammonia perchlorate
60	ammonium
61	ammonium nitrate/PETN
62	ammonium perchloate (oxidizers)
63	ammonium perchlorate
64	ampoules of unknowns from Vanowen
65	Amyl nitrate
66	anhydrous ammonia
67	AP nitrate esters
68	AP, GAP, TMETN, N-100, C, NMA.
69	approximately 60 cubic yards of loosely packed empty steel drums and misc. scrap metals formally hazardous materials
70	aqua ammonia
71	Aqueous Ammonia
72	argon
73	Argon Gas
74	asbestos
75	AZDNE/MeCl2
76	B5H8Et
77	B5H8I
78	B5H9
79	Barium chloride
80	Bas Cyl's
81	bases
82	BCl2
83	Benzaldehyde
84	benzene
85	benzene on sawdust
86	benzene/MBDA recovery
87	Benzene-HCL
88	Benzene-Hydrochloric Acid Mixture
89	Bermite Carbides
90	binders
91	Bis Ethyl 2 Chloroformal
92	bis(2,2-difluoramino-5,5,5-fluorodinitropentyl) formal (SYFO)

93	Bis(2,2-diflouroemino-5,5,5-fluorodinitropentyl) formil (SYFO)
94	Bis(fluorodinitroethoxy) 2,2-bis(difluoramino) propane (SYEP)
95	Bis(fluorodinitroethoxy)-2-isopropanol (SECOH)
96	bis(fluorodintitroethoxy) 2,2-bis(difluoroamino) propane (SYEP)
97	bis(fluorodintitroethoxy)2-propanol (SECOH)
98	Black Powder
99	Blasting caps
100	blue green cylinder-unknown (F2)
101	boranes
102	boric oxide
103	Borol
104	Boron 90%
105	boron amorphous
106	Boron Fuel
107	Boron hydride
108	Boron trifluoride
109	Bottles
110	Breathing air
111	Bromide pentaflouride serial RS0215
112	Bromine
113	Bromine pentafluoride
114	Bromine pentafluoride general chemical serial R-59
115	Bromine triflouride
116	Bromine trifluoride
117	BTU NG compound
118	Butadiene
119	Butadiene polymate
120	butadiene polymer
121	butadienes
122	butaiene polymer, R-45
123	butanetriol trinitrate
124	C2H5BCl2
125	C2H5PH2
126	CAB, NC, CMP, CONPALT, TMETN, DEGDN, TEGDN, NG, EC PVAC, TEGDA, PEG, R-45, GAP, GAPA, ATEC, NDPA, RDX, AP, KP, ZRH2, TAGN, K2SO4, C, CUO2O2, Al, Mg, B, acetone, toluene, ETOH, ETAC
127	CaH2
128	CAL-3
129	Calcium chloride
130	Calcium hydride
131	Carbon Tetrachloride
132	cartridge NA5-28088-1
133	cartridge NA5-28124
134	cartridge NA5-28124T1
135	Caustic Soda
136	Caustid Potash
137	CCl4
138	Cesium

139	CF2Cl2
140	CF3I
141	CF3SF5
142	CH3HP(CH2)3PHCH3
143	CH3MgBr in THF: 3-100 gm bottles
144	CH3PCl2
145	CH3SiCl3
146	Chem Solvent
147	Chemicals, unknown
148	chlorine
149	Chlorine & O2 gas
150	chlorine gas
151	Chlorine Pentafluoride
152	chlorine pentafluoride (compound A)
153	Chlorine Trifluoride
154	Chlorine trifluorinde
155	Chlorine trifluorine
156	ChlorineTrifluoride
157	chlorioform
158	Chlorobutadiene
159	Chloroform
160	Chloropropane
161	Chromic acid
162	cleaning materials and swabs
163	CMP, N-100, DANPE, CMP, NC, NG, PCOE, S-RP, CAB, ATEC, GAPA, R-45, DD1, DOA, PEC, CMGA, DX, NDPA, ZrH2, Si, HMX, B, KClO3, NaHCO3, DATH, S, yellow dye, Al, am. Iodate, OECHCURANZ, bV2, K2Cr2O2, hexachloroethane, acetone, toluene, ethanol, ethyl acetate.
164	CO
165	CO2
166	Comp A.
167	Comp A. fluid
168	Comp C-4
169	Comp. A
170	composite solid propellant grain
171	composition A/picric acid
172	composition B/ RDX
173	composition C/ tetryl
174	composition D/ torpex
175	Compound A
176	Compound A cylinder (1 empty)
177	compress gas cylinder
178	Compressed air
179	Conax valves
180	Contaminated Hydrasins
181	Contaminated UDMH
182	corrosives
183	Crude CH3SF5

184	CTF cylinders
185	CTF-Igniter
186	cupric chloride
187	cyclonite
188	Cyclo-tetramethylene-Nitramine
189	cyclotrimethlyene
190	cyclotrimethylene trinitramine
191	Cylinders
192	DATB
193	Daworals sodium
194	DCFO/CH3CN
195	Decaborane
196	Decon. Fluid
197	Decon. Soln.
198	DEGDN
199	Delta
200	desiccator with unknown contents + cap
201	Detonating primers 2 Gr Long 8258-470640-3
202	Deuterium cylinders (small)
203	DHSG ignition, TEB canisters
204	diazidylnitramino pentane
205	diborane
206	dibutylphhalate
207	dictylphthalate
208	Diesel fuel oil
209	diethyl ether/benzene/magnesium boro hydride diammoniate (MBDA) residues. 4 ~1-L bottles
210	Diethylcyclohexane
211	diethylene glycol dinitrate
212	Diethylene Triamine
213	difluoride gas
214	Dimazine
215	Dimethyl mercury
216	dinitrotoluene
217	dioctylothalate
218	diotyphthalate
219	Dioxane
220	dioxin
221	DPA-HPE-NFPA
222	Dry nitrogen
223	dynamite
224	Elec. Lighters
225	Electric igniters
226	Electric squibb
227	Electric squibb ignitors
228	Electrolyte
229	Electrolyte Solutionn
230	electrolytic solution

231	Empty
232	empty TEB canister
233	energetic binders in 300ml round-bottom flasks
234	epichlorohydrin
235	Epoxy
236	Et2BCl
237	Et2PH
238	EtBBr2
239	Ethane cylinders (large)
240	ethenol
241	Ether
242	Ether Squibbs
243	ether/benzene/MBDA
244	Ethyl deka borane
245	ethyl nitrate
246	Ethylamine
247	ethylene diamine
248	ethylene diamine (drain back)
249	Ethylene Oxide
250	Ethylenediamine
251	EtNH2
252	EtPH
253	EtPH2
254	Explosive A+B
255	Explosive wastes
256	Explosives
257	explosives A&B
258	Explosives bolts
259	F2 gas
260	F2 gas generator pellets (NF4/BF4/KF/Al)
261	F2 seial FL2540
262	FDNE
263	FDNE/alchohol
264	FDNE/MeCl2/C2H5OH
265	Ferrocene
266	Fl empty cylinder
267	Fl (empty)
268	flammable rags
269	Flare mix
270	flares smoke
271	Florox
272	Flourine allied chem. 29-230411
273	flourine gas
274	Fluoride
275	Fluoride-matheson serial TH542
276	Fluorine
277	Fluorine Gas

278	Flushing oil
279	formaldehyde
280	Formic Acid
281	Freon
282	Freon + acid
283	Freon NTO
284	Freon TF
285	Fuel
286	Fuels, Cont.
287	Gap 30%, AP and C 70%
288	GAP 30%, Ap/C 70%. Mix 3-21-1
289	GAP 30%, Ap/C 70%. Mix 3-21-1,2
290	GAP 30%, Ap/C 70%. Mix 3-21-2
291	GAP, N-100, DANPE, GAPA, AP, Mg, Cr, HMX, NC, CMP, DATH, TMETN, DADNH, HMDI, acetone, ethyl acetate, ethanol
292	GAP, N-100, DANPE, HMX, GAPA, TMETN, NC, CMP, DATH, DADNH, paper towels, plastic tubes and beakers, Atlasol yellow dye.
293	GAP, N-100, TMETN, DBTDL, DANPE, CMP, R-45 DD1, PS555, GAPA, NC, NG, R-18, IDP, HD1, CAB, DOA, PEG, CMGA, AP, MNA, C, TPB, SiO2, Al, CuO2O2, Si, NOPA, KClO3, NaHCO3, S, yellow dye, BaCrO3I2, hezachloroethane, Fe, Mg, Fe2O3, Mo, B, I2O5, RDX, ZrH2, ATEC, E
294	GAP/DANPE 30%, AP/AL/Mg/Cr 70%. Paper towels, plastic containers.
295	gas cylinders
296	Gases, unknown
297	Gasoline
298	gasoline soaked sawdust
299	GDNFE
300	GDNFE/alcohol
301	GDNFE/MeCl2/alcohol
302	Gear oil
303	Glycerine
304	glycidyl azide polymer
305	Glycidyl Fluorodinitroethoxide (GDNFE)
306	glycidylazide polymer
307	glycidylazide polymer azide
308	glycidylazide polymers
309	GM lab cylinders
310	green CO2
311	green K bottle
312	gunpowder
313	HBX/ TNT
314	HCL
315	Heptane
316	hexane
317	Hexanes
318	Hexanitrostilbene
319	hexogen
320	HF

321	Hg(CH3)2
322	Hi-Cal-3
323	Hivelites
324	HMX
325	HMX scrap
326	HMX-Nitrocellulose
327	HNB
328	HNF
329	HNS
330	HX310
331	Hybaline
332	Hybaline - Cal-3
333	Hybaline A and RPL
334	Hybaline and RP
335	Hybaline- Cal-3
336	Hybalines
337	Hybalines RP-1
338	hybrid motor grades
339	Hybrid motor grains
340	hydrailic oil
341	Hydraulic oil
342	Hydraulic Oil, Contaminated
343	Hydrazine
344	Hydrazine + cap
345	Hydrazine 90%, EDA 10%
346	Hydrazine and admixtures samples
347	Hydrazine and water (drain back)
348	Hydrazine Nitrate
349	Hydrazine, non-returnable drums
350	Hydrazine, returnable drums
351	Hydrazine, warehouse drums
352	Hydrazine/ HMX Propellant Mixture
353	hydrazine-admixtures and lab chem
354	Hydrazinefluoride (N2F4) ICC3AA2265
355	Hydrazines
356	Hydrocarbon
357	Hydrocarbons
358	hydrocarbons EB-40
359	Hydrochloric Acid
360	Hydrofluoric Acid
361	hydrogen
362	hydrogen argon
363	hydrogen bromide
364	hydrogen chloride/helium
365	Hydrogen cylinders (large)
366	Hydrogen cylinders (small)
367	Hydrogen fluoride

368	Hydrogen fluoride RC4463
369	Hydrogen gas
370	hydrogen silfide
371	Hydrogen Sulfide
372	Hydrogen sulfur
373	Hydrolic Oil
374	hydroxy terminated polybutadiene
375	hydroxy terminated polybytadiene
376	Hypergol igniters
377	hypergol TEA
378	hypergol TEA/TEB/RP-1 residue
379	Hypergol TEB
380	Hyrazine
381	Hyrazine 75%, Ethanol 21%, water 4%
382	Hyrazine and admixtures
383	Hyrdrazine
384	Igniter Class C
385	Igniter ST4530001 RE001
386	Igniters
387	Ignitors
388	Inhibited-Red Fuming Nitric Acid
389	Initiator NA5-26528-3
390	Initiator R5950
391	IRFNA
392	IRFNA (obsolete spec)
393	IRFNA, NTO
394	iron carbonyls + caps. 3-1 pt. cans
395	Isopropy alcohol
396	isopropyl alchohol
397	Isopropyl alcohol
398	Isopropyl Alcohol/NTO mixture
399	Isopropyl Butane
400	JP-4
401	JP-4 (kersosene base)
402	K bottle
403	K-Bottle unkown (liq gas)
404	K-Bottle unkown empty
405	KClo4, Ap, ZrH2 60%; NC, NG 40%. Acetone, etoh, etac
406	Kerosene
407	Ketones
408	Lab chemicals and/or fuel samples
409	Lab cylinder
410	lab cylinders unknown
411	Lab silver cylinder
412	Lab, Samples (Fuels)
413	Lachrymatory
414	Lackrymatory

415	Lacquer Dilute
416	Lance grains
417	Laquer Thinner
418	large TEB bottle
419	Leaded Paint (189 gallons)
420	Leaded paints
421	Licthih
422	LiH
423	liquid waste nitrate esters
424	liquified petroleum gas
425	Lithium
426	Lithium chloride
427	Lithium hybrid
428	Lithium hydride
429	Lithium metal
430	Lube Oil, Contaminated
431	Lube oil-heavy
432	Lube oil-light
433	magnesium
434	magnesium powder
435	Magnesium/telfon flare mix
436	magnisium
437	Mathane
438	MBDA residues
439	Me Allyl PH
440	Me Isopropyl phosphine
441	Me N-Propylphosphine
442	Me2ETp
443	Me2PH
444	Me4P2
445	Me-D3 Iodide
446	MeEtPBH2
447	MePH
448	mercuric oxide
449	mercury
450	Mercury salts
451	metal additives (aluminum)
452	metal and/or metal oxides (Al, Bacon, Zirconium, magnesium
453	metal oxides
454	metals
455	Metals Alkali
456	Methane
457	Methane cylinders (large)
458	methane ethane
459	Methanol
460	Methanol-benzene curric chloride-AlO3
461	Methanol-Cupric Chloride-Aluminum

462	Methanol-Cupric Chloride-Aluminum Chloride Mixture
463	Methanol-HCL
464	methyl acetylyne propadiene
465	Methyl alchohol
466	Methyl alcohol
467	Methyl-borate methanol
468	Methyl-B-Trimethyl Borazine
469	methylene chloride
470	methyl-hydrazine
471	Metriol-tri-nitrate
472	MHF-5
473	MHF-5 Samples
474	MIPB
475	MIPP
476	Misc Acids
477	Misc ampoules from VanOwen. See Appendix A tab.
478	misc binders (FEFO/R-18, NG/R-18, TMETN/R-18, PGDNFE/EA-AA)
479	misc lab chemicals
480	misc samples of AB-1, QMB-3, and MBDA
481	misc small vials of TNM
482	misc solid propellant scraps
483	Misc solid propellant waste
484	Misc. Contaminated fuels
485	misc. contaminated fuels.
486	Misc. flamables
487	misc. junk
488	misc. lab chemicals
489	Misc. Lab Chemicals (Various Size & Type)
490	Misc. phenols
491	Misc. small cylinders
492	Misc. Waste chem
493	mix oxides
494	Mixed oxides
495	Mixed TABH/HMX (dry)
496	Mixed TABN/HMX (dry)
497	MMH
498	MMH 70 ml + Freon TF
499	Mono-Methyl-Hydrazine
500	Muriatic
501	Muriatic acid
502	Muriatic Acids
503	Mydyne
504	Mydyne (drain back)
505	N butyl alcohol
506	N2 gas generator pellets (NaN3 based)
507	N2H4 + cap;
508	NAK

509	NAKA B359 slurry: Acetone/ethanol/isopropanol/NG/TMETN/DANPE. Trace amounds Al, Mg, Cr, Si.
510	NAKA B372 slurry: KCl4/AP.ZrH2 60%, NC/NG 40%.
511	NAKA propellants
512	NAKA propellents
513	NAKA pyrophoric waste/wipes
514	NAKA scraps/wipes
515	NAKA slurry
516	NAKA solid
517	NAKA waste-pyro scrap, Kim wipes
518	Napalm
519	Naphthalene
520	Napthalene
521	NC
522	NC RDX etc
523	NC, NG, R-18, RDPA, HO1, ZrH2, Si, AP, GAP, GAPA, N-100, KCLO3, NaHCO3, S, Yellow dye, CAPEe, plastic containers.
524	NC/CAB/DANPE/DINA/CMP 25%, RDS 75%. PEG/NG 50%, RDX/Al2O3/Cr2O3 50%. GAP/TMETN/GAPA/TEGDN/DANPE 50%, Atlasol yellow dye 50%.
525	N-Dimethyl-B-Trimethyl Borazine
526	Neutralized Acid
527	Nitrate Agar
528	Nitric & Hydrofluoric Acid Mixture
529	Nitric Acid
530	Nitric and Hydrofluoric Acid Mixture
531	Nitric oxide
532	nitro compounds in 30% methylene chloride solution
533	Nitrocellose
534	nitrocellulose
535	nitrocellulose RDX
536	nitrocellulose,
537	Nitroexthane
538	nitrogen tetroxide
539	Nitrogen Tetroxide (contaminated)
540	nitrogen trifluoride
541	Nitrogen trifluoside
542	Nitrogentetroxide
543	nitroglycerin
544	nitroglycerine
545	Nitroguandine
546	nitrogycerin
547	nitromethane poured onto sawdust: 1-500 gram bottle
548	nitromethane poured onto sawdust: 2-500 gram bottle
549	Nitrostarch
550	Nitrosyl chloride
551	nitrous oxide
552	NONA
553	notrocullulose

554	NTO
555	NTO cont. hardware
556	NTO containing hardware
557	NTO cylinders
558	NTO/ Alcohol mixture
559	N-trimethly borazole
560	N-trimethyl borazale
561	N-Trimethyl-B-Methyl boranzine
562	Oil
563	Oil Waste
564	Oil, waste
565	oil/ oil waste
566	organic binder (HTPB)
567	oxidizer dust
568	oxidizers
569	oxidizers (ammonium nitrate)
570	oxygen
571	Oxygen + nitrogen
572	Oxygen cylinders
573	Oxygen cylinders (MT)
574	Oxygen DiFluoride
575	Oxygen Difluoride Gas
576	Oxygen difluorine
577	Oxygen Gas
578	oxygen/nitrogen
579	Oxygen-nitrogen
580	Paint
581	paint thinner
582	Paint tinner
583	paper
584	paper towels
585	paper towels contaminated with binder
586	paper towels contaminated with small amounts of oxidizer
587	paper towels contaminated with small amounts of plasticizers
588	paper, plastic containers
589	Para Xylene
590	partially decomposed metallic materials all empty
591	PCBs
592	PEG/NG 50%, RDX/Al2O3/Cr2O3 50%, paper towels, plastic containers
593	PEG/NG 50%, RDX/MgO 50%, paper towels, plastic containers
594	pentaborane
595	Pentaborane + unknown
596	pentaborane. 2 ampoules
597	Penteborane & Acetone
598	Penteborane & RP-1
599	perchlorate
600	Perchloric Acid

601	perchloroethylene
602	Permangante Mix
603	PGDNE
604	PGDN-FEFO
605	PH
606	PH2
607	PH2(CH2)3PH2
608	PH2(CH2)4PH2
609	phenols
610	Phenyl phosphine
611	Phosphoric Acid
612	phosphorous
613	phosphorous oxychloride
614	Phosphorus
615	Phosphorus Oxychloride
616	Pipe residue
617	Pipernal
618	plasticizer (triethyleneglycol dinitrate, TEGDN)
619	plasticizers
620	Plastisol Nitrocellulose
621	Plating Solution
622	PNC
623	Polymer
624	Polymer soap oil
625	Polymer Waste
626	polymer/polymer waste
627	potassium
628	Potassium Bromide
629	potassium cyanide
630	potassium perchlorate
631	Potassium permangante
632	Potasssium Cyanide
633	PPNF-Nitrocellulose
634	Propane
635	propane/air
636	Propellant hybrid
637	propellant scraps, wipes
638	Propellant, solid
639	Propellant, solids
640	Propellants
641	propellants and Pyrotechnics
642	PS5555, GAPA, N-100, AP, GAP, NAHCO3, S, KCCO4, yellow dye, RDX, CMP, Si, R-45, DDI, Cu?, DANPE, paper, plastic containers.
643	Pyradine
644	pyridine
645	Pyroforic liquids
646	Pyrophoric Aluminum

647	Pyrophoric Igniter
648	Pyrophoric Ingiter
649	Pyrotechnic igniter
650	Pyrotechnic Ingiter
651	pyrotechnic misc. types
652	Quarz Vool
653	R-45, DD1, AP, CuO2O2, Al, si, CMP, GAP, N-100, GAPA, KClO4, ATLASOL yellow dye, KClo3, NaHCO3, S, paper, plastic containers
654	R-45, DD1, GAP, GAPA, N-100, R-18, HMD1, NC, NG, PS555, DANPE, AP, KClO4, KClO3, RDX, NaHCO3, S, Si, PMP, Al, CuO2O2
655	R-45, DD1, IDP, s, KClO3, ATLASOL yellow, NC, ba(NO3)2, NaHCO3, GAP, N-100, AP, TEMETN, MNA, C, TPB, R-18, HMD1, Mo, B, DD1, I2O5, DNPE, RDX, CMP, ATEC, DATH
656	R-45, DDi, AP, CuO2O2, Al, Si, GAP, N-100, yellow dye, GAPA, TMETN, CMP, DANPE, ethyl alcohol, acetone, toluene
657	R-45, DDi, AP, CuO2O2, Al, Si, GAP, N-100, yellow dye, GAPA, TMETN, CMP, DANPE, paper towels, plastic containers
658	Ram set charges
659	RDX
660	RDX-Nitrocellulose
661	Red Fume Nitric Acid
662	Red Fuming HNO3
663	Red Fuming Nitric Acid
664	Redfume nitric acid
665	resin
666	REX-17
667	Rifle shells
668	RJ-1
669	RJ-1 fuel
670	rocket fuel
671	Rosin Flux
672	RP-1
673	RP-1 (kerosene base)
674	RP-1, Contaminated
675	RP-1/TEA TEB
676	rubber binder (HTPB-hydroxy terminated polybutadiene)
677	Scrap gun propellant
678	scrap solid propellant
679	shop waste
680	Silicate of soda
681	SKL-4-DXE
682	Slurry: CAB, NC, CMP, BNPA/I, TMETN, DEGDN, TEGDN, NG, ED,PVAC, TEGDA, PEG, R-45, GAP, GAPA, ATEC, NDPA, RDX, AP, KP, ZrH2, TAGN, K2SO4, C, CuO2O2, Al, Mg, Cr, B, actone, toluene, ETOH, ETAC.
683	small B, GM cylinders
684	small cylinders
685	Small cylinders (MT)
686	small GM cylinders
687	small green CO2

688	small green smoke pellet
689	Small unknown cylinders
690	Small unknown cylinders (MT)
691	small white canister 30psi N2
692	Smoke flares
693	Smoke grenade mat.
694	Smoke mix
695	Smoke powder
696	Soda ash
697	sodium
698	sodium arsenite
699	sodium azide
700	Sodium fluoride
701	Sodium Hydroxide
702	sodium nitrate
703	Sodium nitrite
704	sodium phosphate
705	Sodium Waste
706	Sodium, waste
707	Soldering Flux
708	solid gun propellant scrap
709	solid oxidizers (hexogen)
710	solid propellant scrap
711	solid propellant scraps plus misc ampolues from VanOwen. See Appendix A tab.
712	Solid propellants
713	Solid Propellants & Heptane
714	Solids, unknown
715	Solvent
716	Solvent waste
717	solvent/solvent waste
718	solvents
719	spent fuels
720	spent halogenated solvents
721	squib 101513
722	Squib 19-403189
723	Squib valve 19-403211, P/N 1943
724	stenciled fluorine
725	stoddard solvent
726	strong oxidizers
727	Sulfur dioxide
728	Sulfuric Acid
729	Sulfuric trioxide
730	sulfus dioxide
731	Sulphuric Acid
732	TABN
733	TAE
734	TAGN

735	TAGN in EPA
736	TAGN in IPA
737	TAMA
738	TATB
739	t-BuBCl2
740	TCE
741	TEA
742	TEA and TEAB ignitors
743	TEA B
744	TEA cylinders
745	TEA, RP-1
746	TEA/TEB
747	TEA/TEB drums with RP-1
748	TEA/TEB/RP-1
749	TEA/TEB/RP-1 + cap
750	TEA/TEB/RP-1 + cap. 4-1 gallon cans
751	TEAB
752	TEAB igniters
753	TEAB, RP-1
754	TEAB+RP-1
755	TEB
756	TEB canister
757	TEB in canister
758	TEB+TEAB
759	TEB+TEAB igniters
760	Tetra isobutylene
761	Tetrafluorane
762	tetrafluorohydrazine
763	Tetraisobutylene
764	Tetramethylene phosphine
765	Thiophosgene Cl2CS
766	Titanium
767	titanium tetrachloride
768	titanium trichloride
769	TMETN/GAP 30 %, AP, CP, C 70%. Mix 3-22-1,2,3
770	TMETN/GAP 30 %, AP, CP, C 70%. Mix 3-22-1
771	TMETN/GAP 30 %, AP, CP, C 70%. Mix 3-22-2
772	TMETN/GAP 30 %, AP, CP, C 70%. Mix 3-22-3
773	TNN
774	TNT
775	toluene
776	Toxic gases
777	triaminoguanidine nitrate
778	Tributylamine
779	Tributylborane
780	Trichloroethene
781	Trichloroethylene

782	Triethlyboron
783	Triethyl Aluminium
784	Triethyl Aluminium Borane
785	Triethyl Aluminum
786	Triethyl Aluminum Borane
787	Triethylaluminum
788	triethylaluminum/triethylboran cylinder (NEAT, TEA/TEB 14 lb)
789	Triethylaluminum/triethylboron
790	Triethylamine
791	Triethylborane
792	Triethylboron
793	triethylboron (PIG) cylinder (TEB volume 14lb; NEAT, TEA/TEB 14 lb)
794	triethylboron cylinder (TEB volume 69.5 lbs)
795	Triethylboron-RPI Mixture
796	triethyleneglycol dinitrate
797	Triethylene-Glycol-Dinitrate
798	trietyleneglycol dinitrate
799	Trifluoroacetic anahydride
800	Trigger Assembly 1617-170-01
801	Trigger Assembly ST2840002 RES005
802	Trigger Assembly ST2840002 RES007
803	trimethioltrinitrate
804	Trimethyl borane
805	Trimethyl boron
806	Trimethyl-borate-CH3OH
807	Trimethyl-Borate-Methanol
808	trimethylolethane trinitrate.
809	trinitramine
810	Tri-o-cresyl borate
811	TTTT
812	Turbine spinner grains
813	TVOPA
814	UDMH
815	UDMH +cap
816	UDMH 90%, water 10%
817	UDMH and water (drain back)
818	Ukown empty
819	Unidentiifed Fuels
820	unknown
821	Unknown (AA2015 propane/air)
822	Unknown (large cylinder)
823	unknown ampoule
824	Unknown cylinder
825	Unknown cylinder (MT)
826	Unknown cylinders
827	unknown quantity/contents
828	unknown quantity/contents. "Army"

829	unknown quantity/contents. Compound A
830	Unknown RP C4-9208
831	Unknown RP4-920
832	unknown substances
833	Unknown type/quantity
834	unknown vial
835	Unkown cylidners
836	Unkown Cylinder
837	Unsymetrical-Dimethyl-Hydrazine
838	US Navy MP0607
839	Valve Assembly NA5-260180-1D
840	Versamid 140
841	Very small unknown cylinders (MT)
842	VM-P Naptha
843	waste acid
844	Waste Oil
845	Waste Polymers
846	Water purifier-polymetrics 7145631520
847	water with <5% binders
848	White Fuming Nitric Acid
849	White K bottle
850	wood
851	xylene
852	Zero gas
853	zirconium hydride powder
854	zirconium nitrocellulose
855	zirconium powder

TABLE II
CHEMICALS DETECTED IN ENVIRONMENTAL SAMPLES AT AREA I BURN PIT
AIBP SWMU 4.8 RFI WORK PLAN
BOEING SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

ANALYSIS GROUP	ANALYTE	CAS NUMBER
ANIONS	Bicarbonate (as CaCO3)	
ANIONS	Carbonate (as CaCO3)	
ANIONS	Chloride	
ANIONS	Fluoride	
ANIONS	Nitrate	
ANIONS	Sulfate	
GEN MIN	Cation/Anion Balance (%)	
GEN MIN	Total Dissolved Solids	
VOC	1,1,1-Trichloroethane	71-55-6
VOC	1,1,2,2-Tetrachloroethane	79-34-5
VOC	1,1,2-Trichloroethane	79-00-5
VOC	1,1-Dichloroethane	75-34-3
VOC	1,1-Dichloroethene	75-35-4
VOC	1,2,4-Trichlorobenzene	120-82-1
VOC	1,2-Dibromo-3-chloropropane (DBCP)	96-12-8
VOC	1,2-Dibromoethane	106-93-4
VOC	1,2-Dichlorobenzene	95-50-1
VOC	1,2-Dichloroethane	107-06-2
VOC	1,2-Dichloroethene	
VOC	1,2-Dichloropropane	78-87-5
VOC	1,3-Dichlorobenzene	541-73-1
VOC	1,4-Dichlorobenzene	106-46-7
VOC	2-Butanone	78-93-3
VOC	2-Hexanone	591-78-6
VOC	4-Methyl-2-pentanone	108-10-1
VOC	Acetone	67-64-1
VOC	Benzene	71-43-2
VOC	Bromodichloromethane	75-27-4
VOC	Bromoform	75-25-2
VOC	Bromomethane	74-83-9
VOC	Carbon disulfide	75-15-0
VOC	Carbon tetrachloride	56-23-5
VOC	Chlorobenzene	108-90-7
VOC	Chloroethane	75-00-3
VOC	Chloroform	67-66-3
VOC	Chloromethane	74-87-3
VOC	cis-1,2-Dichloroethene	156-59-2
VOC	cis-1,3-Dichloropropene	10061-01-5
VOC	Cyclohexane	110-82-7
VOC	Dibromochloromethane	124-48-1
VOC	1,1-Dichloroethane	
VOC	trans-1,2-Dichloroethene	
VOC	Dichlorodifluoromethane (CFC-12)	75-71-8
VOC	Dichloromethane	
VOC	Ethylbenzene	100-41-4
VOC	Isopropanol	
VOC	Isopropylbenzene	98-82-8
VOC	Methyl acetate	79-20-9

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BOEING SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

ANALYSIS GROUP	ANALYTE	CAS NUMBER
VOC	Methyl cyclohexane	108-87-2
VOC	4-Methyl-2-pentanone	
VOC	Methyl tert butyl ether (MTBE)	1634-04-4
VOC	Methylene chloride	75-09-2
VOC	Styrene	100-42-5
VOC	Tetrachloroethene	127-18-4
VOC	Toluene	108-88-3
VOC	trans-1,3-Dichloropropene	10061-02-6
VOC	Trichloroethane	
VOC	Trichloroethene	79-01-6
VOC	Trichlorofluoromethane (CFC-11)	75-69-4
VOC	1,1,2-Trichlorotrifluoroethane	
VOC	Trifluorotrichloroethane (Freon 113)	76-13-1
VOC	Vinyl chloride	75-01-4
VOC	1,4-Dioxane	
VOC	Xylenes, Total	
SVOC	2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	108-60-1
SVOC	2,4,5-Trichlorophenol	95-95-4
SVOC	2,4,6-Trichlorophenol	88-06-2
SVOC	2,4-Dichlorophenol	120-83-2
SVOC	2,4-Dimethylphenol	105-67-9
SVOC	2,4-Dinitrophenol	51-28-5
SVOC	2,4-Dinitrotoluene	121-14-2
SVOC	2,6-Dinitrotoluene	606-20-2
SVOC	2-Chloronaphthalene	91-58-7
SVOC	2-Chlorophenol	95-57-8
SVOC	2-Methylnaphthalene	91-57-6
SVOC	2-Methylphenol	95-48-7
SVOC	2-Nitroaniline	88-74-4
SVOC	2-Nitrophenol	88-75-5
SVOC	4-Nitrophenol	
SVOC	3,3'-Dichlorobenzidine	91-94-1
SVOC	3-Nitroaniline	99-09-2
SVOC	4,6-Dinitro-2-methylphenol	534-52-1
SVOC	4-Bromophenyl phenyl ether	101-55-3
SVOC	2-Bromophenol	
SVOC	4-Chloro-3-methylphenol	59-50-7
SVOC	4-Chloroaniline	106-47-8
SVOC	4-Chlorophenyl phenyl ether	7005-72-3
SVOC	4-Methylphenol	106-44-5
SVOC	4-Nitroaniline	100-01-6
SVOC	4-Nitrophenol	100-02-7
SVOC	Acenaphthene	83-32-9
SVOC	Acenaphthylene	208-96-8
SVOC	Acetophenone	98-86-2
SVOC	Anthracene	120-12-7
SVOC	Atrazine	1912-24-9
SVOC	Benzaldehyde	100-52-7

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BOEING SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

ANALYSIS GROUP	ANALYTE	CAS NUMBER
SVOC	Benzo(a)anthracene	56-55-3
SVOC	Benzo(a)pyrene	50-32-8
SVOC	Benzo(b)fluoranthene	205-99-2
SVOC	Benzo(g,h,i)perylene	191-24-2
SVOC	Benzo(k)fluoranthene	207-08-9
SVOC	Biphenyl	92-52-4
SVOC	bis(2-Chloroethoxy)methane	111-91-1
SVOC	bis(2-Chloroethyl)ether	111-44-4
SVOC	bis(2-Ethylhexyl)phthalate	117-81-7
SVOC	Butyl benzylphthalate	85-68-7
SVOC	Butoxycellosolve	
SVOC	Caprolactam	105-60-2
SVOC	Carbazole	86-74-8
SVOC	2-Chlorophenol	
SVOC	Chrysene	218-01-9
SVOC	Di-n-butylphthalate	84-74-2
SVOC	Di-n-octyl phthalate	117-84-0
SVOC	Dibenz(a,h)anthracene	53-70-3
SVOC	Dibenzofuran	132-64-9
SVOC	Diethyl phthalate	84-66-2
SVOC	2,4-Dimethylphenol	
SVOC	Dimethyl phthalate	131-11-3
SVOC	Fluoranthene	206-44-0
SVOC	Fluorene	86-73-7
SVOC	Hexachlorobenzene	118-74-1
SVOC	Hexachlorobutadiene	87-68-3
SVOC	Hexachlorocyclopentadiene	77-47-4
SVOC	Hexachloroethane	67-72-1
SVOC	Indeno(1,2,3-cd)pyrene	193-39-5
SVOC	Isophorone	78-59-1
SVOC	N-Nitrosodi-n-propylamine	621-64-7
SVOC	N-Nitrosodiphenylamine	86-30-6
SVOC	Naphthalene	91-20-3
SVOC	Nitrobenzene	98-95-3
SVOC	Pentachlorophenol	87-86-5
SVOC	Phenanthrene	85-01-8
SVOC	Phenol	108-95-2
SVOC	Pyrene	129-00-0
SVOC	Tetrachlorophenol	
SVOC	1,2,6-Tribromophenol	
PCB	Aroclor-1016 (PCB-1016)	12674-11-2
PCB	Aroclor-1221 (PCB-1221)	11104-28-2
PCB	Aroclor-1232 (PCB-1232)	11141-16-5
PCB	Aroclor-1242 (PCB-1242)	53469-21-9
PCB	Aroclor-1248 (PCB-1248)	12672-29-6
PCB	Aroclor-1254 (PCB-1254)	11097-69-1
PCB	Aroclor-1260 (PCB-1260)	11096-82-5
METAL	Aluminum	7429-90-5

TABLE II
CHEMICALS DETECTED IN ENVIRONMENTAL SAMPLES AT AREA I BURN PIT
AIBP SWMU 4.8 RFI WORK PLAN
BOEING SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

ANALYSIS GROUP	ANALYTE	CAS NUMBER
METAL	Antimony	7440-36-0
METAL	Arsenic	7440-38-2
METAL	Barium	7440-39-3
METAL	Beryllium	7440-41-7
METAL	Boron	
METAL	Cadmium	7440-43-9
METAL	Calcium	7440-70-2
METAL	Chromium Total	7440-47-3
METAL	Chromium, Hexavalent	
METAL	Cobalt	7440-48-4
METAL	Copper	7440-50-8
METAL	Iron	7439-89-6
METAL	Lead	7439-92-1
METAL	Lithium	
METAL	Magnesium	7439-95-4
METAL	Manganese	7439-96-5
METAL	Mercury	7439-97-6
METAL	Molybdenum	
METAL	Nickel	7440-02-0
METAL	Phosphorus	
METAL	Potassium	7440-09-7
METAL	Selenium	7782-49-2
METAL	Silica	
METAL	Silicon (as (SiO2)	7440-21-8
METAL	Silver	7440-22-4
METAL	Sodium	7440-23-5
METAL	Strontium	
METAL	Thallium	7440-28-0
METAL	Tin	
METAL	Titanium	
METAL	Vanadium	7440-62-2
METAL	Zinc	7440-66-6
METAL	Cyanide	
Semiquantitative (TIC)	Unknown Akipate	
Semiquantitative (TIC)	Molecular Sulfur	
Semiquantitative (TIC)	Unknown Hydrocarbon	
TPH	C6-C12 (Gasoline)	
TPH	C07-C24 (Heavy Oil)	
TPH	C07-C28 (Diesel Range)	
TPH	C10-C24 (Diesel Range)	
TPH	C12-C28	
TPH	C16-C28	
TPH	Diesel	
PERCHLORATE	Perchlorate	
pH	pH	
HYDRAZINE	Hydrazine	
MERCAPTANS	Mercaptans	
DIOXIN	1,2,3,4,6,7,8-HpCDD	

TABLE II
CHEMICALS DETECTED IN ENVIRONMENTAL SAMPLES AT AREA I BURN PIT
AIBP SWMU 4.8 RFI WORK PLAN
BOEING SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

ANALYSIS GROUP	ANALYTE	CAS NUMBER
DIOXIN	1,2,3,4,6,7,8-HpCDF	
DIOXIN	1,2,3,4,7,8,9-HpCDF	
DIOXIN	1,2,3,4,7,8-HxCDD	
DIOXIN	1,2,3,4,7,8-HxCDF	
DIOXIN	1,2,3,6,7,8-HxCDD	
DIOXIN	1,2,3,6,7,8-HxCDF	
DIOXIN	1,2,3,7,8,9-HxCDD	
DIOXIN	1,2,3,7,8,9-HxCDF	
DIOXIN	1,2,3,7,8-PeCDD	
DIOXIN	1,2,3,7,8-PeCDF	
DIOXIN	2,3,4,6,7,8-HxCDF	
DIOXIN	2,3,4,7,8-PeCDF	
DIOXIN	2,3,7,8-TCDD	
DIOXIN	2,3,7,8-TCDF	
DIOXIN	OCDD	
DIOXIN	OCDF	
DIOXIN	TCDD TEQ (ND = 0)	
DIOXIN	Total HpCDD	
DIOXIN	Total HpCDF	
DIOXIN	Total HxCDD	
DIOXIN	Total HxCDF	
DIOXIN	Total PeCDD	
DIOXIN	Total PeCDF	
DIOXIN	Total TCDD	
DIOXIN	Total TCDF	

TABLE III
AREA I BURN PIT - SWMU 4.8 SUMMARY OF ANALYTICAL METHODS RATIONALE
A1BP - SWMU 4.8 RFI WORK PLAN
BOEING SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

Parameter(s) for Analysis	Analytical Method	Rationale
Target Compound List Volatile Organic Compounds (TCL VOCs)	EPA Method 8260B	Historical detection of VOCs in groundwater and soils (i.e. Trichloroethene) and documented disposal of waste solvents at the A1BP.
Target Compound List Semi-Volatile Organic Compounds (TCL SVOCs)	EPA Method 8270C	Historical detection of phthalates related to the disposal of plasticizers and the potential for the formation of Products of Incomplete Combustion (PICs) from the burning of wastes that could include polyaromatic hydrocarbons (PAHs) i.e. benzo (a) pyrene.
Formaldehyde	EPA Method 8315A	Historical detection and the documented disposal of formaldehyde in the A1BP.
Polychlorinated dibenzo–p-dioxins and Polychlorinated dibenzo–p-furans (PCDD/PCDFs)	EPA Method 8290	Historical detection of dioxins/furans in site soils and sediment and the potential for the formation of PICs from the burning of wastes that could include polychlorinated biphenyl (PCBs) compounds
Target Analyte List (TAL) Metals plus tin, titanium, strontium, boron and zirconium	EPA Method 6010B, 6020	Historical detection (i.e. chromium) and the documented disposal of metal containing wastes in the A1BP.
Perchlorate	EPA Method 314/8321M	Historical detection of perchlorate in soil leachate in the A1BP area Outfall.
PCBs	EPA Method 8082	Documented disposal of PCBs containing wastes in the A1BP.
Nitroso-dimethyl amine (NDMA)	EPA Method 1625C	The documented disposal of Unsymmetrical Dimethyl Hydrazine (UDMH) in the A1BP area. UDMH rapidly decomposes to NDMA upon contact with soil pore moisture.
Nitroaromatics (Nitrobenzene, Trinitrotoluene (TNT), dintrotoluene,	EPA Method 8330A	The documented use of energetic compounds to detonate waste materials for disposal in the A1BP area.
Total Anions (i.e. chloride, fluoride, sulfate, nitrate and nitrite)	EPA Method 300	The documented disposal of reagent grade acids including: Hydrochloric acid (HCl), Sulfuric acid (H_2SO_4), Hydrofluoric acid (HF), and Nitric acid (HNO_3)
Total Cyanide (CN)	EPA Method 9012A	Historical detection of CN in soils within the A1BP.
Soil pH Levels	EPA Method 150.2	The documented disposal of reagent grade acids and bases in the A1BP.
Total Ammonia (NH_3), Total Kjeldahl Nitrogen (TKN) and Total Organic Nitrogen (TON)	Std Methods 18th Edition Method 4500	The documented disposal of organic amines including Tetraethylamine (TEA) and other organic compounds containing forms of nitrogen. (amines, amides and ammonium salts)
Total Petroleum Hydrocarbons (TPH)	EPA Method 8015	The documented use of petroleum distillates as accelerates for the disposal of wastes in the A1BP.

TABLE IV
SUMMARY OF PROPOSED SAMPLING
AREA I BURN PIT AREA- SWMU 4.8
BOEING SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

								Extended Suite																
								RFI Suite																
Number of Sampling Locations (see Figure 10)	Area (SEE FIGURE 9)	Matrix	Approximate Number of Samples	Analytical Suite	Proposed Sampling Approach	Sampling Rationale	VOCs (soil vapor)	SVOCs	Formaldehyde	Nitrogen Compounds	Metals	Cyanide	TPH (diesel and oil range)	Perchlorate	Fluoride	pH	PCBs (HOLD)	Nitroaromatics (RDX /HMX)	VOCs (soil matrix)	Dioxins	PAHs	NDMA	Total Chromium	Hex. Chromium (HOLD)
	Soil Vapor																							
TBD (68)	Focused Irregular Grid	Vapor	68	VOCs	Collect and analyze soil vapor samples at 3 ft bgs at geophysical anomolies and at locations where depth to bedrock is 5 feet or less. Collect and analyze soil vapor samples at 3 feet and at top of bedrock at locations were depth to bedrock is greater than 5 feet.	Source areas, disturbed areas, data gap	68																		
	Earth Pond 1																							
TBD (2)	SW corner of SWMU 4.8 - one proposed exploratory trench	Soil	4	Extended RFI Suite	Collect samples at ground surface and at base of each exploratory trench. HOLD sample at base of trench if no field evidence of soil impacts.	Source area		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
TBD (5)	SW corner of SWMU 4.8	Soil	10	Extended RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Source area		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
TBD (3)	SW corner of SWMU 4.8	Soil	6	RFI Suite	Collect samples at ground surface and 3.5-4.0 ft bgs on containment berm.	Disturbed area		6	6	6	6	6	6	6	6	6	6							
	Earth Pond 2																							
TBD (2)	SW corner of SWMU 4.8 - one proposed exploratory trench	Soil	4	Extended RFI Suite	Collect samples at ground surface and at base of each exploratory trench. HOLD sample at base of trench if no field evidence of soil impacts.	Source area		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
TBD (9)	SW corner of SWMU 4.8	Soil	18	Extended RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Source area		18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
TBD (2)	SW corner of SWMU 4.8	Soil	6	RFI Suite	Collect samples at ground surface and 3.5-4.0 ft bgs on containment berm.	Disturbed area		6	6	6	6	6	6	6	6	6	6							
	Former Explosive Sheds																							
TBD (2)	East of Earth Ponds 1 and 2	Soil	4	Extended RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Source area		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Former Fire Demonstration Area																							
TBD (4)	Former Fire Demonstration Area and Sample Location RR-8 - two proposed exploratory trenches	Soil	8	Extended RFI Suite	Collect samples at ground surface and at base of each exploratory trench. HOLD sample at base of trench if no field evidence of soil impacts there.	Source area		8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
TBD (4)	Former Fire Demonstration Area and Sample Location RR-8 - along sides of proposed exploratory trenches	Soil	8	Extended RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Source area		8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

TABLE IV
SUMMARY OF PROPOSED SAMPLING
AREA I BURN PIT AREA- SWMU 4.8
BOEING SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

Number of Sampling Locations (see Figure 10)	Area (SEE FIGURE 9)	Matrix	Approximate Number of Samples	Analytical Suite	Proposed Sampling Approach	Sampling Rationale	VOCs (soil vapor)	Extended Suite / RFI Suite: SVOCs	Formaldehyde	Nitrogen Compounds	Metals	Cyanide	TPH (diesel and oil range)	Perchlorate	Fluoride	pH	PCBs (HOLD)	Nitroaromatics (RDX /HMX)	VOCs (soil matrix)	Dioxins	PAHs	NDMA	Total Chromium	Hex. Chromium (HOLD)
	1982 Excavations 1-5																							
TBD (4)	Former (1982) excavations 1-3, W of TTF	Soil	12	Extended RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and just above bedrock	Source area		12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
TBD (7)	Former (1982) excavation 4, W of TTF, and including geophysical anomaly	Soil	21	Extended RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and just above bedrock	Source area		21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
TBD (3)	Perimeter of former (1982) excavation 4, W of TTF	Soil	9	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and just above bedrock	Disturbed area		9	9	9	9	9	9	9	9	9	9							
TBD (1)	Former (1982) excavation 5, NE of Concrete Pad 2	Soil	2	Extended RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and just above bedrock	Source area		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Concrete Pond (removed)																							
TBD (1)	Within former concrete pond, NE of Burn Pit 1	Soil	2	Extended RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Source area		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Control Center (removed)																							
TBD (1)	At former Control Center	Soil	2	Extended RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Source area		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Burn Pit 1																							
TBD (1)	Within former Burn Pit 1	Soil	3	Extended RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Source area		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	TTF Interim Status Facility																							
TBD (1)	Within Burn Pit 2	Soil	3	Extended RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Source area		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
TBD (3)	W, S, and E perimeter of Burn Pit 2	Soil	9	Extended RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Source area		9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
TBD (4)	Northern and southern containment berms of Burn Pit 2	Soil	8	RFI Suite	Collect samples at ground surface and 3.5-4.0 ft bgs on containment berm.	Disturbed area		8	8	8	8	8	8	8	8	8	8							
TBD (1)	SW perimeter of Burn Pit 2 berm	Soil	3	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Disturbed area		3	3	3	3	3	3	3	3	3	3							
TBD (1)	At former Concrete Pad 2	Soil	2	Extended RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Source area		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
TBD (2)	Within containment berm of former Concrete Pad 2	Soil	6	Extended RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Source area		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
TBD (5)	Perimeter of former Concrete Pad 2 and containment berm, including 3 geophysical anomalies	Soil	10	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Disturbed area		10	10	10	10	10	10	10	10	10	10							
TBD (2)	Containment berm of former Concrete Pad 2	Soil	4	RFI Suite	Collect samples at ground surface and 3.5-4.0 ft bgs on containment berm.	Disturbed area		4	4	4	4	4	4	4	4	4	4							
	Concrete Ponds 2 and 3																							

TABLE IV
SUMMARY OF PROPOSED SAMPLING
AREA I BURN PIT AREA- SWMU 4.8
BOEING SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

								Extended Suite																
								RFI Suite																
Number of Sampling Locations (see Figure 10)	Area (SEE FIGURE 9)	Matrix	Approximate Number of Samples	Analytical Suite	Proposed Sampling Approach	Sampling Rationale	VOCs (soil vapor)	SVOCs	Formaldehyde	Nitrogen Compounds	Metals	Cyanide	TPH (diesel and oil range)	Perchlorate	Fluoride	pH	PCBs (HOLD)	Nitroaromatics (RDX /HMX)	VOCs (soil matrix)	Dioxins	PAHs	NDMA	Total Chromium	Hex. Chromium (HOLD)
TBD (2)	Within the former concrete ponds	Soil	4	Extended RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Source area		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
TBD (5)	Around and between the former concrete ponds	Soil	10	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Disturbed area		10	10	10	10	10	10	10	10	10	10							
	Earth Pond 3																							
TBD (4)	Within former Earth Pond 3 - two proposed exploratory trenches	Soil	8	Extended RFI Suite	Collect samples at ground surface and at base of each exploratory trench. HOLD sample at base of trench if no field evidence of soil impacts there.	Source area		8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
TBD (4)	Perimeter of former Earth Pond 3	Soil	8	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and just above bedrock	Disturbed area		8	8	8	8	8	8	8	8	8	8							
	Isolated Geophysical Anomalies																							
TBD (1)	W of Earth Pond 2	Soil	4	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Disturbed area		4	4	4	4	4	4	4	4	4	4							
TBD (3)	N of Former Fire Demonstration Area	Soil	6	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Disturbed area		6	6	6	6	6	6	6	6	6	6							
TBD (1)	S of TTF, just N of southern SWMU 4.8 boundary	Soil	2	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Disturbed area		2	2	2	2	2	2	2	2	2	2							
TBD (1)	NE of Concrete Pond 3	Soil	2	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Disturbed area		2	2	2	2	2	2	2	2	2	2							
TBD (1)	NE side of Earth Pond 3	Soil	2	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Disturbed area		2	2	2	2	2	2	2	2	2	2							
TBD (1)	Between Earth Pond 3 and Perimeter Pond	Soil	2	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Disturbed area		2	2	2	2	2	2	2	2	2	2							
TBD (1)	SE side of Burn Pit 2	Soil	2	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Disturbed area		2	2	2	2	2	2	2	2	2	2							
TBD (3)	Three geophysical anomalies on S side of Earth Pond 3	Soil	6	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Disturbed area		6	6	6	6	6	6	6	6	6	6							
	Western Migration Pathways																							
TBD (2)	SW and S of Earth Pond 2, respectively	Soil	4	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Migration pathway		4	4	4	4	4	4	4	4	4	4							
TBD (3)	Along southwestern SWMU 4.8 boundary and east of Earth Pond 2	Soil	6	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Migration pathway		6	6	6	6	6	6	6	6	6	6							
	Eastern Migration Pathways																							
TBD (1)	E side of former (1982) excavations 1-3	Soil	3	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Migration pathway		3	3	3	3	3	3	3	3	3	3							
TBD (1)	SW of former (1982) excavation 4	Soil	3	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Migration pathway		3	3	3	3	3	3	3	3	3	3							

TABLE IV
SUMMARY OF PROPOSED SAMPLING
AREA I BURN PIT AREA- SWMU 4.8
BOEING SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

								Extended Suite														
								RFI Suite														
Number of Sampling Locations (see Figure 10)	Area (SEE FIGURE 9)	Matrix	Approximate Number of Samples	Analytical Suite	Proposed Sampling Approach	Sampling Rationale	VOCs (soil vapor)	SVOCs	Formaldehyde	Nitrogen Compounds	Metals	Cyanide	TPH (diesel and oil range)	Perchlorate	Fluoride	pH	PCBs (HOLD)	Nitroaromatics (RDX /HMX)	VOCs (soil matrix)	Dioxins	PAHs	NDMA	Total Chromium	Hex. Chromium (HOLD)
TBD (1)	In minor drainage E of Concrete Pad 2	Soil	2	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Migration pathway		2	2	2	2	2	2	2	2	2	2							
TBD (4)	Along minor drainage leading from Concrete Pad 2 to the SE, towards SE corner of SWMU 4.8	Soil	8	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Migration pathway		8	8	8	8	8	8	8	8	8	8							
TBD (1)	SW of former nitrogen tetroxide tank	Soil	2	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Migration pathway		2	2	2	2	2	2	2	2	2	2							
TBD (1)	In minor drainage E of former Control Center	Soil	2	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Migration pathway		2	2	2	2	2	2	2	2	2	2							
TBD (2)	Along minor drainage E of Earth Pond 3, draining towards the E side of Earth Pond 3	Soil	4	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Migration pathway		4	4	4	4	4	4	4	4	4	4							
TBD (2)	Along minor drainage SE of Concrete Pond 3, draining towards the SE	Soil	4	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Migration pathway		4	4	4	4	4	4	4	4	4	4							
	Western Data Gap Areas																							
TBD (2)	NE of Earth Pond 1	Soil	4	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Data gap		4	4	4	4	4	4	4	4	4	4							
TBD (1)	North-central SWMU 4.8 boundary	Soil	2	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Data gap		2	2	2	2	2	2	2	2	2	2							
	Eastern Data Gap Areas																							
TBD (1)	Between Concrete Pad 1 and former (1982) excavations 1-3	Soil	2	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Data gap		2	2	2	2	2	2	2	2	2	2							
TBD (1)	Concrete Pad 1	Soil	2	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Data gap		2	2	2	2	2	2	2	2	2	2							
TBD (1)	N of Concrete Pond (removed), NE of Burn Pit 1	Soil	2	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Data gap		2	2	2	2	2	2	2	2	2	2							
TBD (1)	Former nitrogen tetroxide tank at NE corner of SWMU 4.8	Soil	2	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Data gap		2	2	2	2	2	2	2	2	2	2							
TBD (1)	NE of Control Center (removed)	Soil	2	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Data gap		2	2	2	2	2	2	2	2	2	2							
TBD (1)	N of Control Center (removed	Soil	2	RFI Suite	Collect samples at 0.5 ft bgs, between 3-5 ft bgs, and/or just above bedrock	Data gap		2	2	2	2	2	2	2	2	2	2							
	Western Drainages																							
TBD (2)	Westernmost drainage, W of Northwest Hummocks	Sediment, Soil	4	RFI Suite	Collect samples at 0.05 ft bgs, between 3-5 ft bgs and/or just above bedrock, within drainage	Down-drainage sample		4	4	4	4	4	4	4	4	4	4							
TBD (3)	South of Northwest Hummocks, North of Earth Pond 1	Sediment, Soil	6	RFI Suite	Collect samples at 0.05 ft bgs, between 3-5 ft bgs and/or just above bedrock within drainage	Down-drainage sample		6	6	6	6	6	6	6	6	6	6							

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AREA I BURN PIT AREA- SWMU 4.8
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								Extended Suite																
								RFI Suite																
Number of Sampling Locations (see Figure 10)	**Area (SEE FIGURE 9)**	**Matrix**	**Approximate Number of Samples**	**Analytical Suite**	**Proposed Sampling Approach**	**Sampling Rationale**	**VOCs (soil vapor)**	**SVOCs**	**Formaldehyde**	**Nitrogen Compounds**	**Metals**	**Cyanide**	**TPH (diesel and oil range)**	**Perchlorate**	**Fluoride**	**pH**	**PCBs (HOLD)**	**Nitroaromatics (RDX /HMX)**	**VOCs (soil matrix)**	**Dioxins**	**PAHs**	**NDMA**	**Total Chromium**	**Hex. Chromium (HOLD)**
TBD (3)	SW of Earth Pond 2	Sediment, Soil	9-13	RFI Suite	Collect samples at 0.05 ft bgs, between 3-5 ft bgs and/or just above bedrock, within drainage, and at drainage banks. Collect additional samples at 10 ft step-outs of bank locations and HOLD, pending drainage results.	Down-drainage sample		9-13	9-13	9-13	9-13	9-13	9-13	9-13	9-13	9-13	9-13							
	Eastern Drainages																							
TBD (3)	NE of Outfall 011 at SE corner of SWMU 4.8	Sediment, Soil	9-13	RFI Suite	Collect samples at 0.05 ft bgs, between 3-5 ft bgs and/or just above bedrock, within drainage, and at drainage banks. Collect additional samples at 10 ft step-outs of bank locations and HOLD, pending drainage results.	Down-drainage sample		9-13	9-13	9-13	9-13	9-13	9-13	9-13	9-13	9-13	9-13							
	Southern Drainages (Figure 7)																							
TBD (1)	South of south-central SWMU 4.8 boundary	Sediment, Soil	2	RFI Suite	Collect samples at 0.05 ft bgs, between 3-5 ft bgs and/or just above bedrock	Down-drainage sample		2	2	2	2	2	2	2	2	2	2							
TBD (3)	SW of SWMU 4.8, in western drainage	Sediment, Soil	9-13	RFI Suite	Collect samples at 0.05 ft bgs, between 3-5 ft bgs and/or just above bedrock, within drainage, and at drainage banks. Collect additional samples at 10 ft step-outs of bank locations and HOLD, pending drainage results.	Down-drainage sample		9-13	9-13	9-13	9-13	9-13	9-13	9-13	9-13	9-13	9-13							
TBD (5)	Along eastern drainage, S of SWMU 4.8	Sediment, Soil	13-17	RFI Suite	At single sample locations, collect samples at 0.05 ft bgs, between 3-5 ft bgs and/or just above bedrock. At the multiple sample location, collect samples at 0.05 ft bgs, between 3-5 ft bgs and/or just above bedrock, within drainage, and at drainage banks. Collect additional samples at 10 ft step-outs of bank locations and HOLD, pending drainage results.	Down-drainage sample		13-17	13-17	13-17	13-17	13-17	13-17	13-17	13-17	13-17	13-17							
TBD (2)	Along drainage S of confluence of E and W drainages near SWMU 4.8	Sediment, Soil	4	RFI Suite	Collect samples at 0.05 ft bgs, between 3-5 ft bgs and/or just above bedrock	Down-drainage sample		4	4	4	4	4	4	4	4	4	4							
TBD (3)	Approximately 900 ft NE of Outfall 001 (Sample location BCBS07S01)	Sediment, Soil	9-13	RFI Suite	Collect samples at 0.05 ft bgs, between 3-5 ft bgs and/or just above bedrock, within drainage, and at drainage banks. Collect additional samples at 10 ft step-outs of bank locations and HOLD, pending drainage results.	Down-drainage sample		9-13	9-13	9-13	9-13	9-13	9-13	9-13	9-13	9-13	9-13							
TBD (1)	Approximately 350 ft E of Outfall 001	Sediment, Soil	4	RFI Suite	Collect samples at 0.05 ft bgs, between 3-5 ft bgs and/or just above bedrock	Down-drainage sample		4	4	4	4	4	4	4	4	4	4							
215-225 sampling locations		**Approx number of samples: 413- 433**				**Totals:**	68	345 - 365 each										130	130	130	130	130	130	130

NOTES AND ABBREVIATIONS

1. The proposed sampling listed on this table are shown on Figures 7 and 9.

2. EPA Method Numbers: VOCs (TO-15, 8260B), SVOCs (8270C), formaldehyde (8315A), nitrogen compounds (9056, SM4500), metals (6010B, 6020, 7199, 7471A), cyanide (9012B), TPH (8015), perchlorate (8321M), fluoride (340.2), pH (150.2), PCBs (8082), nitroaromatics (8330A), dioxins (8290), PAHs (8270C), NDMA (1625M).

3. Nitrogen forms including Nitrates (SW-846 EPA Method 9056) and Nitrites, Total Organic Nitrogen and Total Kjeldahl Nitrogen SM4500 (Standard Methods 18th ed. Method 4500).

4. PCBs will be held and analyzed in samples containing elevated oil-range TPH (>1000 mg/kg).

5. Potential hydrazine impacts will be evaluated by analyzing for n-nitrosodimethylamine (NDMA).

6. Samples collected for hexavalent chromium will be held pending the total chromium results. Hexavalent chromium will be run on samples containing elevated total chromium above the background concentration.