

DETAILED COST ESTIMATE (CONT.SHEET)

Project WAG-5 FS COST ESTIMATES
SOIL SITES: ARA-01, ARA-12, ARA-16, ARA-23, PBF-16, ARA-25
ALTERNATIVE 4A - REMOVAL AND DISPOSAL
AT INEEL

Type of Est. Planning

File No. 4951-4

Date 01/05/99

ACCT. NO.	DESCRIPTION	E,V, P,H	MAT'L UNIT	MAT'L UT. COST	UNIT LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
	RA Document Preparation (cont)										
	Packaging, Shipping, Transportation Documentation										
	Sampling and Analysis		1 fte		240	240	75	18,000			18,000
	Hazard Classification		1 fte		200	200	75	15,000			15,000
	Selection and Procurement of Packaging		1 fte		200	200	75	15,000			15,000
	Packaging, Shipping, Transportation Documentation Cost										48,000
	Remedial Action Report										
	RA Report Preparation		1 fte		320	320	75	24,000			24,000
	Reviews and Comment Resolution		1 fte		320	320	75	24,000			24,000
	RA Report Cost										48,000
	WAG-Wide RA 5 Yr. Review - (Cost Includes (1) FTE For (1) yr for the Initial Review										
	RA Report Preparation		1 yr		1,440	1,440	75	108,000			108,000
	Reviews and Comment Resolution		1 yr		440	440	75	33,000			33,000
	WAG-Wide RA 5 Yr. Reviews For 100 Years										141,000
	RD Document Preparation										
	Safety Analysis Documentation (ASA & HSP)										
	Auditable Safety Analysis/Haz. Classification		2 fte		160	320	75	24,000			24,000
	Unresolved Safety Questions		2 fte		160	320	75	24,000			24,000
	Quality Assurance		1 fte		30	30	75	2,250			2,250
	Review and Comment Resolution		2 fte		335	670	75	50,250			50,250
	Safety Analysis Documentation Cost										100,500
	Sampling and Analysis Plan										
	Preliminary Scoping		1 fte		320	320	75	24,000			24,000
	Field Sampling Plan Preparation		1 fte		400	400	75	30,000			30,000
	Reviews and Comment Resolution		1 fte		720	720	75	54,000			54,000
	Sampling and Analysis Plan Cost										108,000

DETAILED COST ESTIMATE (CONT.SHEET)

Project WAG-5 FS COST ESTIMATES
SOIL SITES: ARA-01, ARA-12, ARA-16, ARA-23, PBF-16, ARA-25
ALTERNATIVE 4A - REMOVAL AND DISPOSAL
AT INEEL

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ACCT. NO.	DESCRIPTION	E,V, P,H	MAT'L UNIT	MAT'L UT. COST	UNIF LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
	RD Document Preparation (continued)										
	Pre-Final Inspection Report										
	Checklist Preparation		1 fte		40	40	75	3,000			3,000
	Reviews and Comment Resolution		1 fte		60	60	75	4,500			4,500
	Pre-Final Inspection Report Cost										7,500
	Remedial Design										
	Initial Review of Deed Restrictions with Governing Bodies and Public Comment										
	Legal Attorney and Env. Affairs at \$32K ea.		1 ea	32,000					32,000		32,000
	Deed Restrictions Cost										32,000
	Title Design Construction Document Package; Contaminated Soils Excavation, Handling, and On-Site Disposal										
	Remedial Design Workplan		1 fte		320	320	75	24,000			24,000
	Siting and Surveying		3 fte		40	120	40	4,800			4,800
	Final Design Construction Document Package		12 dwgs	3,500					42,000		42,000
	Total Title Design Package										70,800
	Site Characterization - Including: Sample Collection Materials/Labor, Shipping, SMO TOS Preparation & Analysis Reporting, ERIS Quality Reporting										
	Assume a Total Allowance of 100 Samples for all Sites		100 smpls	1,000	4	400	75	30,000	100,000	500	130,500
										(Materials)	
	Repository WAC Sampling/Analysis: Assume		408 smpls	2,500	4	1,632	75	122,400	1,020,000		1,142,400
	(1) sample per 100 cy										
	Site Characterization - Total Cost										1,272,900

DETAILED COST ESTIMATE (CONT.SHEET)

Page 27 of 49

Project WAG-5 FS COST ESTIMATES
SOIL SITES: ARA-01, ARA-12, ARA-16, ARA-23, PBF-16, ARA-25
ALTERNATIVE 4A - REMOVAL AND DISPOSAL
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Type of Est. Planning

File No. 4951-4

Date 01/05/99

ACCT. NO.	DESCRIPTION	E, V, P, H	MAT'L UNIT	MAT'L UT. COST	UNIF LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
Remedial Action - Construction Subcontract; Contaminated Soils Excavation, Handling, and On-Site Disposal											
	Mobilization to Job Site		1 ls		24	24	350	8,400			8,400
	Machine Excavate for Waste Removal		50,750 cy		0.1	5,075	350	1,776,250			1,776,250
	Hand Excavate Soils around existing foundations		250 cy		3	750	65	48,750			48,750
	Manual Separation of Vegetation		10,200 cy		0.12	1,224	32	39,168		Equip. Rental	39,168
	Size Vegetation (Assume Open Air Chipper)		10,200 cy		0.25	2,550	32	81,600		20,000	101,600
	Box & Ship to WERF (Assume 90% Reduction)		1,020 cy	30	0.20	204	150	30,600	30,600		61,200
	Contour and Shape Excavated Areas		60 acres	1,500					90,000		90,000
	Haul Soils to ICPP Repository (10 cy/load)		4,080 loads		2	8,160	55	448,800			448,800
	Vegetate Cover		60 acre	2,000					120,000		120,000
	Equipment Cleanup and Demob.		1 ls	5,000	40	40	350	14,000	5,000		19,000
	Total Subcontractor Directs										2,713,168
	Subcontractor Overhead and Profit @ 30%										813,950
	Total Subcontractor Directs and Indirects										3,527,118
	Procurement Fees and G&A at Current Business Practices										670,152
	Total Subcontractor Costs										4,197,271
	Onsite ICPP Soil Repository Disposal Cost		40,800 cy	104					4,243,200		4,243,200
	Total Cost										8,440,471
	Project/Construction Management; Contaminated Soils Excavation, Handling, and On-Site Disposal										705,424

DETAILED COST ESTIMATE (CONT.SHEET)

Project WAG-5 FS COST ESTIMATES
SOIL SITES: ARA-01, ARA-12, ARA-16, ARA-23, PBF-16, ARA-25
ALTERNATIVE 4A - REMOVAL AND DISPOSAL
AT INEEL

Type of Est. Planning

File No. 4951-4

Date 01/05/99

ACCT. NO.	DESCRIPTION	E, V, P, H	MAT'L UNIT	MAT'L UT. COST	UNIT/LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
	Remedial Action - Operations (100 Year Duration)										
	Program Management										
	Coordination/Oversight of Technical Support										NA
	Coordination with Agency Participants										NA
	Cost and Schedule Control										NA
	Ensure Compliance of Gov't Regulation										NA
	Reviews										NA
	Audit Preparation and Coordination										NA
	Annual Operations & Maintenance Reports										NA
	Total Cost (Per Year)										NA
	Program Management Costs - 100 Year Duration										NA
	WAG-Wide RA 5 Yr. Review - (Costs are Assumed as Part of the Onsite Repository Acceptance Fees)										
	RA Report Preparation		N/A								NA
	Reviews and Comment Resolution		N/A								NA
	WAG-Wide RA 5 Yr. Reviews For 100 Years										NA
	Remedial Design										
	Added Institutional Controls										
	Legal Attorney and Env. Affairs at \$32K ea.		N/A								NA
	Total Added Institutional Controls - 100 Year Duration										NA
	Caretaker/Maintenance										
	Caretaker		N/A								N/A
	Fencing Maintenance		N/A								N/A
	Materials and Repair		N/A								N/A
	Caretaker/Maintenance Cost Per Year										N/A

DETAILED COST ESTIMATE (CONT.SHEET)

Project WAG-5 FS COST ESTIMATES
SOIL SITES: ARA-01, ARA-12, ARA-16, ARA-23, PBF-16, ARA-25
ALTERNATIVE 4B - REMOVAL AND DISPOSAL
OFF INEEL

Type of Est. Planning

File No. 4951-4

Date 01/05/99

ACCT. NO.	DESCRIPTION	E,V, P,H	MAT'L UNIT	MAT'L UT. COST	UNIT-LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
	FFA/CO Management and Oversight										
	Program Management										
	Coordination/Oversight of Technical Support		1 fte		640	640	75	48,000			48,000
	Coordination with Agency Participants		1 fte		320	320	75	24,000			24,000
	Cost and Schedule Control		1 fte		320	320	65	20,800			20,800
	Ensure Compliance of Gov't Regulation		1 fte		160	160	70	11,200			11,200
	Quarterly and Yearly Reviews		1 fte		160	160	65	10,400			10,400
	Audit Preparation and Coordination		1 fte		160	160	65	10,400			10,400
	Total Cost (Per Year)										124,800
	Total Cost (Per Year Rounded)										125,000
	Program Management - 3 Year Duration		3 yr	125,000					375,000		375,000
	RA Document Preparation										
	RD/RA SOW										
	PreDesign Studies/Preliminary Scoping		3 fte		80	240	75	18,000			18,000
	Design Criteria		1 fte		40	40	75	3,000			3,000
	RD/RA Document Preparation		1 fte		80	80	75	6,000			6,000
	Reviews and Comment Resolution		1 fte		360	360	75	27,000			27,000
	RD/RA SOW Cost										54,000
	RA Workplan										
	Preliminary Scoping		1 fte		160	160	75	12,000			12,000
	RD/RA Document Preparation		1 fte		260	260	75	19,500			19,500
	Reviews and Comment Resolution		1 fte		420	420	75	31,500			31,500
	RA Workplan Cost										63,000

DETAILED COST ESTIMATE (CONT.SHEET)

Project WAG-5 FS COST ESTIMATES
SOIL SITES: ARA-01, ARA-12, ARA-16, ARA-23, PBF-16, ARA-25
ALTERNATIVE 4B - REMOVAL AND DISPOSAL
OFF INEEL

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ACCT. NO.	DESCRIPTION	E, V, P, H	MAT'L UNIT	MAT'L UT. COST	UNIT LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
	RA Document Preparation (cont)										
	Packaging, Shipping, Transportation Documentation										
	Sampling and Analysis		1 fte		240	240	75	18,000			18,000
	Hazard Classification		1 fte		200	200	75	15,000			15,000
	Selection and Procurement of Packaging		1 fte		200	200	75	15,000			15,000
	Packaging, Shipping, Transportation Documentation Cost										48,000
	Remedial Action Report										
	RA Report Preparation		1 fte		320	320	75	24,000			24,000
	Reviews and Comment Resolution		1 fte		320	320	75	24,000			24,000
	RA Report Cost										48,000
	WAG-Wide RA 5 Yr. Review - (Cost includes (1) FTE For (1) yr for the Initial Review										
	RA Report Preparation		1 yr		1,440	1,440	75	108,000			108,000
	Reviews and Comment Resolution		1 yr		440	440	75	33,000			33,000
	WAG-Wide RA 5 Yr. Reviews										141,000
	RD Document Preparation										
	Safety Analysis Documentation (ASA & HSP)										
	Auditable Safety Analysis/Hazards Classification		2 fte		160	320	75	24,000			24,000
	Unresolved Safety Questions		2 fte		160	320	75	24,000			24,000
	Quality Assurance		1 fte		30	30	75	2,250			2,250
	Review and Comments Resolution		2 fte		335	670	75	50,250			50,250
	Safety Analysis Documentation Cost										100,500
	Sampling and Analysis Plan										
	Preliminary Scoping		1 fte		320	320	75	24,000			24,000
	Field Sampling Plan Preparation		1 fte		400	400	75	30,000			30,000
	Reviews and Comment Resolution		1 fte		720	720	75	54,000			54,000
	Sampling and Analysis Plan Cost										108,000

DETAILED COST ESTIMATE (CONT.SHEET)

Project WAG-5 FS COST ESTIMATES
SOIL SITES: ARA-01, ARA-12, ARA-16, ARA-23, PBF-16, ARA-25
ALTERNATIVE 4B - REMOVAL AND DISPOSAL
OFF INEEL

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	RD Document Preparation (continued)										
	Pre-Final Inspection Report										
	Checklist Preparation		1 fte		40	40	75	3,000			3,000
	Reviews and Comment Resolution		1 fte		60	60	75	4,500			4,500
	Pre-Final Inspection Report Cost										7,500
	Remedial Design										
	Added Institutional Controls - 5 Yr. Review of Deed Restrictions with Governing Bodies and Public Comment. Assume a Total of 1 Review.										
	Legal Attorney and Env. Affairs at \$32K ea.		1 ea	32,000					32,000		32,000
	Total Added Institutional Controls - (1) 5 Yr. Review										32,000
	Title Design Construction Document Package; Contaminated Soils Excavation, Handling, and Off-Site Disposal										
	Remedial Design Workplan		1 fte		320	320	75	24,000			24,000
	Siting and Surveying		3 fte		40	120	40	4,800			4,800
	Final Design Construction Document Package		12 dwgs	3,500					42,000		42,000
	Total Title Design Package										70,800
	Site Characterization - Including: Sample Collection Materials/Labor, Shipping, SMO TOS Preparation & Analysis Reporting, ERIS Quality Reporting										
	Assume a Total Allowance of 100 Samples for all Sites		100 smpls	1,000	4	400	75	30,000	100,000	500	130,500
										(Materials)	
	Repository WAC Sampling/Analysis: Assume (1) sample per Railcar (70 cy)		583 smpls	2,500	4	2,331	75	174,857	1,457,143		1,632,000
	Site Characterization - Total Cost										1,762,500

DETAILED COST ESTIMATE (CONT.SHEET)

Page 33 of 49

Project WAG-5 FS COST ESTIMATES
SOIL SITES: ARA-01, ARA-12, ARA-16, ARA-23, PBF-16, ARA-25
ALTERNATIVE 4B - REMOVAL AND DISPOSAL
OFF INEEL

Type of Est. Planning

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Date 01/05/99

ACCT. NO.	DESCRIPTION	E,V, P,H	MAT'L UNIT	MAT'L UT. COST	UNIT LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
	Remedial Action - Construction Subcontract; Contaminated Soils Excavation, Handling, and On-Site Disposal										
	Mobilization to Job Site		1 ls		24	24	350	8,400			8,400
	Machine Excavate for Waste Removal		50,750 cy		0.1	5,075	350	1,776,250			1,776,250
	Hand Excavate Soils around existing foundations		250 cy		3	750	65	48,750			48,750
	Manual Separation of Vegetation		10,200 cy		0.12	1,224	32	39,168		Equip. Rental	39,168
	Size Vegetation (Assume Open Air Chipper)		10,200 cy		0.25	2,550	32	81,600		20,000	101,600
	Box & Ship to WERF (Assume 90% Reduction)		1,020 cy	30	0.20	204	150	30,600	30,600		61,200
	Contour and Shape Excavated Areas		60 acres	1,500					90,000		90,000
	Haul Soils to ICPP Repository (10 cy/load)		4,080 loads		2	8,160	55	448,800			448,800
	Vegetate Cover		60 acre	2,000					120,000		120,000
	Equipment Cleanup and Demob.		1 ls	5,000	40	40	350	14,000	5,000		19,000
	Total Subcontractor Directs										2,713,168
	Subcontractor Overhead and Profit @ 30%										813,950
	Total Subcontractor Directs and Indirects										3,527,118
	Procurement Fees and G&A at Current Business Practices (21%)										629,300
	Total Subcontractor Costs										4,156,418
	Offsite Disposal Costs		40,800 cy	400					16,320,000		16,320,000
	Total Cost										20,476,418
	Project/Construction Management; Contaminated Soils Excavation, Handling, and Off-Site Disposal										705,424

DETAILED COST ESTIMATE (CONT.SHEET)

Page 34 of 49

Project WAG-5 FS COST ESTIMATES
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ALTERNATIVE 4B - REMOVAL AND DISPOSAL
OFF INEEL

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	Remedial Action - Operations (100 Year Duration)										
	Program Management										
	Coordination/Oversight of Technical Support										NA
	Coordination with Agency Participants										NA
	Cost and Schedule Control										NA
	Ensure Compliance of Gov't Regulation										NA
	Reviews										NA
	Audit Preparation and Coordination										NA
	Annual Operations & Maintenance Reports										NA
	Total Cost (Per Year)										NA
	Program Management Costs - 100 Year Duration										NA
	WAG-Wide RA 5 Yr. Review - (Costs are Assumed as Part of the Onsite Repository Acceptance Fees)										
	RA Report Preparation		N/A								NA
	Reviews and Comment Resolution		N/A								NA
	WAG-Wide RA 5 Yr. Reviews										NA
	Remedial Design										
	Added Institutional Controls										
	Legal Attorney and Env. Affairs at \$32K ea.		N/A								NA
	Total Added Institutional Controls - 100 Year Duration										NA
	Caretaker/Maintenance										
	Caretaker		N/A								N/A
	Fencing Maintenance		N/A								N/A
	Materials and Repair		N/A								N/A
	Caretaker/Maintenance Cost Per Year										N/A

DETAILED COST ESTIMATE (CONT.SHEET)

Project WAG-5 FS COST ESTIMATES
SOIL SITES: ARA-01, ARA-12, ARA-16, ARA-23, PBF-16, ARA-25
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	FFA/CO Management and Oversight										
	Program Management										
	Coordination/Oversight of Technical Support		1 fte		640	640	75	48,000			48,000
	Coordination with Agency Participants		1 fte		320	320	75	24,000			24,000
	Cost and Schedule Control		1 fte		320	320	65	20,800			20,800
	Ensure Compliance of Gov't Regulation		1 fte		160	160	70	11,200			11,200
	Quarterly and Yearly Reviews		1 fte		160	160	65	10,400			10,400
	Audit Preparation and Coordination		1 fte		160	160	65	10,400			10,400
	Total Cost (Per Year)										124,800
	Total Cost (Per Year Rounded)										125,000
	Program Management - 3 Year Duration		3 yr.	125,000					375,000		375,000
	RA Document Preparation										
	RD/RA SOW										
	PreDesign Studies/Preliminary Scoping		3 fte		80	240	75	18,000			18,000
	Design Criteria		1 fte		40	40	75	3,000			3,000
	RD/RA Document Preparation		1 fte		80	80	75	6,000			6,000
	Reviews and Comment Resolution		1 fte		360	360	75	27,000			27,000
	RD/RA SOW Cost										54,000
	RA Workplan										
	Preliminary Scoping		1 fte		160	160	75	12,000			12,000
	RD/RA Document Preparation		1 fte		260	260	75	19,500			19,500
	Reviews and Comment Resolution		1 fte		420	420	75	31,500			31,500
	RA Workplan Cost										63,000

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	RA Document Preparation (cont)										
	Packaging, Shipping, Transportation Documentation										
	Sampling and Analysis		1 fte		240	240	75	18,000			18,000
	Hazard Classification		1 fte		200	200	75	15,000			15,000
	Selection and Procurement of Packaging		1 fte		200	200	75	15,000			15,000
	Packaging, Shipping, Transportation Documentation Cost										48,000
	Remedial Action Report										
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	Reviews and Comment Resolution		1 fte		320	320	75	24,000			24,000
	RA Report Cost										48,000
	WAG-Wide RA 5 Yr. Review - (Cost Includes (1) FTE For (1) yr for the Initial Review										
	RA Report Preparation		1 yr		1,440	1,440	75	108,000			108,000
	Reviews and Comment Resolution		1 yr		440	440	75	33,000			33,000
	WAG-Wide RA 5 Yr. Reviews										141,000
	RD Document Preparation										
	Safety Analysis Documentation (ASA & HSP)										
	Auditable Safety Analysis/Haz. Classification		2 fte		160	320	75	24,000			24,000
	Unresolved Safety Questions		2 fte		160	320	75	24,000			24,000
	Quality Assurance		1 fte		30	30	75	2,250			2,250
	Review and Comment Resolution		2 fte		335	670	75	50,250			50,250
	Safety Analysis Documentation Cost										100,500
	Sampling and Analysis Plan										
	Preliminary Scoping		1 fte		320	320	75	24,000			24,000
	Field Sampling Plan Preparation		1 fte		400	400	75	30,000			30,000
	Reviews and Comment Resolution		1 fte		720	720	75	54,000			54,000
	Sampling and Analysis Plan Cost										108,000

DETAILED COST ESTIMATE (CONT.SHEET)

Project WAG-5 FS COST ESTIMATES
SOIL SITES: ARA-01, ARA-12, ARA-16, ARA-23, PBF-16, ARA-25
ALTERNATIVE 5A - REMOVAL, EX SITU TREATMENT, AND
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ACCT. NO.	DESCRIPTION	E,V, P,H	MAT'L UNIT	MAT'L UT. COST	UNIT-LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
	RD Document Preparation (continued)										
	Pre-Final Inspection Report										
	Checklist Preparation		1 fte		40	40	75	3,000			3,000
	Reviews and Comment Resolution		1 fte		60	60	75	4,500			4,500
	Pre-Final Inspection Report Cost										7,500
	Remedial Design										
	Added Institutional Controls - 5 Yr. Review of Deed Restrictions with Governing Bodies and Public Comment. Assume a Total of 1 Review.										
	Legal Attorney and Env. Affairs at \$32K ea.		1 ea	32,000					32,000		32,000
	Total Added Institutional Controls - (1) 5 Yr. Review										32,000
	Title Design Construction Document Package; Contaminated Soils Excavation, Handling, and On-Site Disposal										
	Remedial Design Workplan		1 fte		320	320	75	24,000			24,000
	Siting and Surveying		3 fte		40	120	40	4,800			4,800
	Final Design Construction Document Package		100 dwgs	3,500					350,000		350,000
	Total Title Design Package										378,800
	Site Characterization - Including: Sample Collection Materials/Labor, Shipping, SMO TOS Preparation & Analysis Reporting, ERIS Quality Reporting										
	Assume a Total Allowance of 100 Samples for all Sites		100 smpls	1,000	4	400	75	30,000	100,000	500	130,500
										(Materials)	
	Repository WAC Sampling/Analysis: Assume (1) sample per 100 cy		204 smpls	2,500	4	816	75	61,200	510,000		571,200
	Site Characterization - Total Cost										701,700

DETAILED COST ESTIMATE (CONT.SHEET)

Project WAG-5 FS COST ESTIMATES
SOIL SITES: ARA-01, ARA-12, ARA-16, ARA-23, PBF-16, ARA-25
ALTERNATIVE 5A - REMOVAL, EX SITU TREATMENT, AND
DISPOSAL ON INEEL

Type of Est. Planning File No. 4951-4 Date 01/05/99

ACCT. NO.	DESCRIPTION	E,V, P,H	MAT'L UNIT	MAT'L UT. COST	UNIT LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
Remedial Action - Construction Subcontract; Contaminated Soils Excavation, Handling, and On-Site Disposal											
	Mobilization to Job Site		1 ls		24	24	350	8,400			8,400
	Machine Excavate for Waste Removal		50,750 cy		0.1	5,075	350	1,776,250			1,776,250
	Hand Excavate Soils around existing foundations		250 cy		3	750	65	48,750			48,750
	Manual Separation of Vegetation		10,200 cy		0.12	1,224	32	39,168		Equip. Rental	39,168
	Size Vegetation (Assume Open Air Chipper)		10,200 cy		0.25	2,550	32	81,600		20,000	101,600
	Box & Ship to WERF (Assume 90% Reduction)		1,020 cy	30	0.20	204	150	30,600	30,600		61,200
	Contour and Shape Excavated Areas		60 acres	1,500					90,000		90,000
	Haul Soils to SGS and to Repository		2,040 loads		2	4,080	55	224,400			224,400
	Haul Soils to SGS and Back to Site		2,040 loads		1	2,040	55	112,200			112,200
	Vegetate Cover		60 acre	2,000					120,000		120,000
	Equipment Cleanup and Demob.		1 ls	5,000	40	40	350	14,000	5,000		19,000
	Total Subcontractor Directs										2,600,968
	Subcontractor Overhead and Profit @ 30%										780,290
	Total Subcontractor Directs and Indirects										3,381,258
	Segregated Gate System (SGS):										
	Mobilization/Demobilization		2 sys	75,000					150,000		150,000
	Processing SGS		40,800 cy	75					3,060,000		3,060,000
	Segregated Gate System Directs and Indirects										3,210,000

DETAILED COST ESTIMATE (CONT.SHEET)

Page 40 of 49

Project WAG-5 FS COST ESTIMATES
SOIL SITES: ARA-01, ARA-12, ARA-16, ARA-23, PBF-16, ARA-25
ALTERNATIVE 5A - REMOVAL, EX SITU TREATMENT, AND
DISPOSAL ON INEEL

Type of Est. Planning File No. 4951-4 Date 01/05/99

ACCT. NO.	DESCRIPTION	E,V, P,H	MAT'L UNIT	MAT'L UT. COST	UNIT LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
	Remedial Action - Construction Subcontract; Contaminated Soils Excavation, Handling, and On-Site Disposal										
	Segregated Gate System (SGS) Support										
	Soil Receiver/Hopper, Grizzly, Sizing/Separator/Feed Sys.		2 sys	375,000	Included				750,000		750,000
	Personnel for Processing to Feed SGS		40,800 cy		0.120	4,896	160	783,360			783,360
	Additional Electrical										
	Switchgear		1 ls	50,000	Included				50,000		50,000
	Generator Set		1 ls	50,000	Included				50,000		50,000
	Mobilization/Demobilization		1 ls	10,000	Included				10,000		10,000
	Total Subcontractor (SGS) Directs & Indirects										1,643,360
	Subcontractor Overhead and Profit @ 30%										493,008
	Total Subcontractor Directs and Indirects										2,136,368
	Total Subcontractors Directs and Indirects (Pages 39 & 40)										8,727,626
	Procurement Fees and G&A at Current Business Practices										1,658,249
	Total Subcontractor Costs										10,385,875
	ICPP Disposal Fee		20,400 cy	104					2,121,600		2,121,600
	Total Cost										12,507,475
	Project/Construction Management; Contaminated Soils Excavation, Handling, and On-Site Disposal										1,745,525

DETAILED COST ESTIMATE (CONT.SHEET)

Project WAG-5 FS COST ESTIMATES
SOIL SITES: ARA-01, ARA-12, ARA-16, ARA-23, PBF-16, ARA-25
ALTERNATIVE 5A - REMOVAL, EX SITU TREATMENT, AND
DISPOSAL ON INEEL

Type of Est. Planning

File No. 4951-4

Date 01/05/99

ACCT. NO.	DESCRIPTION	E.V. P,H	MAT'L UNIT	MAT'L UT. COST	UNIT LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
	Remedial Action - Operations (100 Year Duration)										
	Program Management										
	Coordination/Oversight of Technical Support										NA
	Coordination with Agency Participants										NA
	Cost and Schedule Control										NA
	Ensure Compliance of Gov't Regulation										NA
	Reviews										NA
	Audit Preparation and Coordination										NA
	Annual Operations & Maintenance Reports										NA
	Total Cost (Per Year)										NA
	Program Management Costs - 100 Year Duration										NA
	WAG-Wide RA 5 Yr. Review - (Costs are Assumed as Part of the Onsite Repository Acceptance Fees)										
	RA Report Preparation		N/A								NA
	Reviews and Comment Resolution		N/A								NA
	WAG-Wide RA 5 Yr. Reviews For 100 Years										NA
	Remedial Design										
	Added Institutional Controls										
	Legal Attorney and Env. Affairs at \$32K ea.		N/A								NA
	Total Added Institutional Controls - 100 Year Duration										NA
	Caretaker/Maintenance										
	Caretaker		N/A								N/A
	Fencing Maintenance		N/A								N/A
	Materials and Repair		N/A								N/A
	Caretaker/Maintenance Cost Per Year										N/A

DETAILED COST ESTIMATE (CONT.SHEET)

Project WAG-5 FS COST ESTIMATES
SOIL SITES: ARA-01, ARA-12, ARA-16, ARA-23, PBF-16, ARA-25
ALTERNATIVE 5B - REMOVAL, EX SITU TREATMENT, AND
DISPOSAL OFF INEEL

Type of Est. Planning

File No. 4951-4

Date 01/05/99

ACCT. NO.	DESCRIPTION	E,V, P,H	MAT'L UNIT	MAT'L UT. COST	UNIT-LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
	FFA/CO Management and Oversight										
	Program Management										
	Coordination/Oversight of Technical Support		1 fte		640	640	75	48,000			48,000
	Coordination with Agency Participants		1 fte		320	320	75	24,000			24,000
	Cost and Schedule Control		1 fte		320	320	65	20,800			20,800
	Ensure Compliance of Gov't Regulation		1 fte		160	160	70	11,200			11,200
	Quarterly and Yearly Reviews		1 fte		160	160	65	10,400			10,400
	Audit Preparation and Coordination		1 fte		160	160	65	10,400			10,400
	Total Cost (Per Year)										124,800
	Total Cost (Per Year Rounded)										125,000
	Program Management - 3 Year Duration		3 yr	125,000					375,000		375,000
	RA Document Preparation										
	RD/RA SOW										
	PreDesign Studies/Preliminary Scoping		3 fte		80	240	75	18,000			18,000
	Design Criteria		1 fte		40	40	75	3,000			3,000
	RD/RA Document Preparation		1 fte		80	80	75	6,000			6,000
	Reviews and Comment Resolution		1 fte		360	360	75	27,000			27,000
	RD/RA SOW Cost										54,000
	RA Workplan										
	Preliminary Scoping		1 fte		160	160	75	12,000			12,000
	RD/RA Document Preparation		1 fte		260	260	75	19,500			19,500
	Reviews and Comment Resolution		1 fte		420	420	75	31,500			31,500
	RA Workplan Cost										63,000

DETAILED COST ESTIMATE (CONT.SHEET)

Page 44 of 49

Project WAG-5 FS COST ESTIMATES
SOIL SITES: ARA-01, ARA-12, ARA-16, ARA-23, PBF-16, ARA-25
ALTERNATIVE 5B - REMOVAL, EX SITU TREATMENT, AND
DISPOSAL OFF INEEL

Type of Est. Planning

File No. 4951-4

Date 01/05/99

ACCT. NO.	DESCRIPTION	E,V, P,H	MAT'L UNIT	MAT'L UT. COST	UNIT LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
	RA Document Preparation (cont)										
	Packaging, Shipping, Transportation Documentation										
	Sampling and Analysis		1 fte		240	240	75	18,000			18,000
	Hazard Classification		1 fte		200	200	75	15,000			15,000
	Selection and Procurement of Packaging		1 fte		200	200	75	15,000			15,000
	Packaging, Shipping, Transportation Documentation Cost										48,000
	Remedial Action Report										
	RA Report Preparation		1 fte		320	320	75	24,000			24,000
	Reviews and Comment Resolution		1 fte		320	320	75	24,000			24,000
	RA Report Cost										48,000
	WAG-Wide RA 5 Yr. Review - (Cost Includes (1) FTE For (1) yr for the Initial Review										
	RA Report Preparation		1 yr		1,440	1,440	75	108,000			108,000
	Reviews and Comment Resolution		1 yr		440	440	75	33,000			33,000
	WAG-Wide RA 5 Yr. Reviews										141,000
	RD Document Preparation										
	Safety Analysis Documentation (ASA & HSP)										
	Auditable Safety Analysis/Hazards Classification		2 fte		160	320	75	24,000			24,000
	Unresolved Safety Questions		2 fte		160	320	75	24,000			24,000
	Quality Assurance		1 fte		30	30	75	2,250			2,250
	Review and Comments Resolution		2 fte		335	670	75	50,250			50,250
	Safety Analysis Documentation Cost										100,500
	Sampling and Analysis Plan										
	Preliminary Scoping		1 fte		320	320	75	24,000			24,000
	Field Sampling Plan Preparation		1 fte		400	400	75	30,000			30,000
	Reviews and Comment Resolution		1 fte		720	720	75	54,000			54,000
	Sampling and Analysis Plan Cost										108,000

DETAILED COST ESTIMATE (CONT.SHEET)

Project WAG-5 FS COST ESTIMATES
SOIL SITES: ARA-01, ARA-12, ARA-16, ARA-23, PBF-16, ARA-25
ALTERNATIVE 5B - REMOVAL, EX SITU TREATMENT, AND
DISPOSAL OFF INEEL

Type of Est. Planning

File No. 4951-4

Date 01/05/99

ACCT. NO.	DESCRIPTION	E,V, P,H	MAT'L UNIT	MAT'L UT. COST	UNIT LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
	RD Document Preparation (continued)										
	Pre-Final Inspection Report										
	Checklist Preparation		1 fte		40	40	75	3,000			3,000
	Reviews and Comment Resolution		1 fte		60	60	75	4,500			4,500
	Pre-Final Inspection Report Cost										7,500
	Remedial Design										
	Added Institutional Controls - 5 Yr. Review of Deed Restrictions with Governing Bodies and Public Comment. Assume a Total of 1 Review.										
	Legal Attorney and Env. Affairs at \$32K ea.		1 ea	32,000					32,000		32,000
	Total Added Institutional Controls - (1) 5 Yr. Review										32,000
	Title Design Construction Document Package; Contaminated Soils Excavation, Handling, and Off-Site Disposal										
	Remedial Design Workplan		1 fte		320	320	75	24,000			24,000
	Siting and Surveying		3 fte		40	120	40	4,800			4,800
	Final Design Construction Document Package		100 dwgs	3,500					350,000		350,000
	Total Title Design Package										378,800
	Site Characterization - including: Sample Collection Materials/Labor, Shipping, SMO TOS Preparation & Analysis Reporting, ERIS Quality Reporting										
	Assume a Total Allowance of 100 Samples for all Sites		100 smpls	1,000	4	400	75	30,000	100,000	500	130,500
										(Materials)	
	Repository WAC Sampling/Analysis: Assume (1) sample per Railcar (70 cy)		291 smpls	2,500	4	1,166	75	87,429	728,571		816,000
	Site Characterization - Total Cost										946,500

DETAILED COST ESTIMATE (CONT.SHEET)

Project

WAG-5 FS COST ESTIMATES
SOIL SITES: ARA-01, ARA-12, ARA-16, ARA-23, PBF-16, ARA-25
ALTERNATIVE 5B - REMOVAL, EX SITU TREATMENT, AND
DISPOSAL OFF INEEL

Type of Est. Planning

File No. 4951-4

Date 01/05/99

ACCT. NO.	DESCRIPTION	E, V, P, H	MAT'L UNIT	MAT'L UT. COST	UNIT LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
Remedial Action - Construction Subcontract; Contaminated Soils Excavation, Handling, and On-Site Disposal											
	Mobilization to Job Site		1 ls		24	24	350	8,400			8,400
	Machine Excavate for Waste Removal		50,750 cy		0.1	5,075	350	1,776,250			1,776,250
	Hand Excavate Soils around existing foundations		250 cy		3	750	65	48,750			48,750
	Manual Separation of Vegetation		10,200 cy		0.12	1,224	32	39,168		Equip. Rental	39,168
	Size Vegetation (Assume Open Air Chipper)		10,200 cy		0.25	2,550	32	81,600		20,000	101,600
	Box & Ship to WERF (Assume 90% Reduction)		1,020 cy	30	0.20	204	150	30,600	30,600		61,200
	Contour and Shape Excavated Areas		60 acres	1,500					90,000		90,000
	Haul Soils to SGS and to Repository		2,040 loads		2	4,080	55	224,400			224,400
	Haul Soils to SGS and Back to Site		2,040 loads		1	2,040	55	112,200			112,200
	Vegetate Cover		60 acre	2,000					120,000		120,000
	Equipment Cleanup and Demob.		1 ls	5,000	40	40	350	14,000	5,000		19,000
	Total Subcontractor Directs										2,600,968
	Subcontractor Overhead and Profit @ 30%										780,290
	Total Subcontractor Directs and Indirects										3,381,258
	Segregated Gate System (SGS):										
	Mobilization/Demobilization		2 sys	75,000					150,000		150,000
	Processing SGS		40,800 cy	75					3,060,000		3,060,000
	Segregated Gate System Directs and Indirects										3,210,000

DETAILED COST ESTIMATE (CONT.SHEET)

Project WAG-5 FS COST ESTIMATES
SOIL SITES: ARA-01, ARA-12, ARA-16, ARA-23, PBF-16, ARA-25
ALTERNATIVE 5B - REMOVAL, EX SITU TREATMENT, AND
DISPOSAL OFF INEEL

Type of Est. Planning File No. 4951-4 Date 01/05/99

ACCT. NO.	DESCRIPTION	E,V, P,H	MAT'L UNIT	MAT'L UT. COST	UNIT LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
Remedial Action - Construction Subcontract; Contaminated Soils Excavation, Handling, and On-Site Disposal											
Segregated Gate System (SGS) Support											
	Soil Receiver/Hopper, Grizzly, Sizing/Separator/Feed Sys.		2 sys	375,000	Included				750,000		750,000
	Personnel for Processing to Feed SGS		40,800 cy		0.120	4,896	160	783,360			783,360
	Additional Electrical										
	Switchgear		1 ls	50,000	Included				50,000		50,000
	Generator Set		1 ls	50,000	Included				50,000		50,000
	Mobilization/Demobilization		1 ls	10,000	Included				10,000		10,000
	Total Subcontractor (SGS) Directs & Indirects										1,643,360
	Subcontractor Overhead and Profit @ 30%										493,008
	Total Subcontractor Directs and Indirects										2,136,368
	Total Subcontractors Directs and Indirects										8,727,626
	Procurement Fees and G&A at Current Business Practices										1,658,249
	Total Subcontractor Costs										10,385,875
	Offsite Disposal Costs		20,400 cy	400					8,160,000		8,160,000
	Total Cost										18,545,875
Project/Construction Management; Contaminated Soils Excavation, Handling, and On-Site Disposal											
											1,745,525

DETAILED COST ESTIMATE (CONT.SHEET)

Project WAG-6 FS COST ESTIMATES
SOIL SITES: ARA-01, ARA-12, ARA-16, ARA-23, PBF-16, ARA-25
ALTERNATIVE 5B - REMOVAL, EX SITU TREATMENT, AND
DISPOSAL OFF INEEL

Type of Est. Planning

File No. 4951-4

Date 01/05/99

ACCT. NO.	DESCRIPTION	E, V, P, H	MAT'L UNIT	MAT'L UT. COST	UNIT LAB. HRS	TOTAL LAB. HRS.	LABOR RATE	LABOR COST	MAT'L COST	OTHER COST	TOTAL COST
	Remedial Action - Operations (100 Year Duration)										
	Program Management										
	Coordination/Oversight of Technical Support										NA
	Coordination with Agency Participants										NA
	Cost and Schedule Control										NA
	Ensure Compliance of Gov't Regulation										NA
	Reviews										NA
	Audit Preparation and Coordination										NA
	Annual Operations & Maintenance Reports										NA
	Total Cost (Per Year)										NA
	Program Management Costs - 100 Year Duration										NA
	WAG-Wide RA 5 Yr. Review - (Costs are Assumed as Part of the Onsite Repository Acceptance Fees)										
	RA Report Preparation		N/A								NA
	Reviews and Comment Resolution		N/A								NA
	WAG-Wide RA 5 Yr. Reviews For 100 Years										NA
	Remedial Design										
	Added Institutional Controls										
	Legal Attorney and Env. Affairs at \$32K ea.		N/A								NA
	Total Added Institutional Controls - 100 Year Duration										NA
	Caretaker/Maintenance										
	Caretaker		N/A								NA
	Fencing Maintenance		N/A								NA
	Materials and Repair		N/A								NA
	Caretaker/Maintenance Cost Per Year										NA