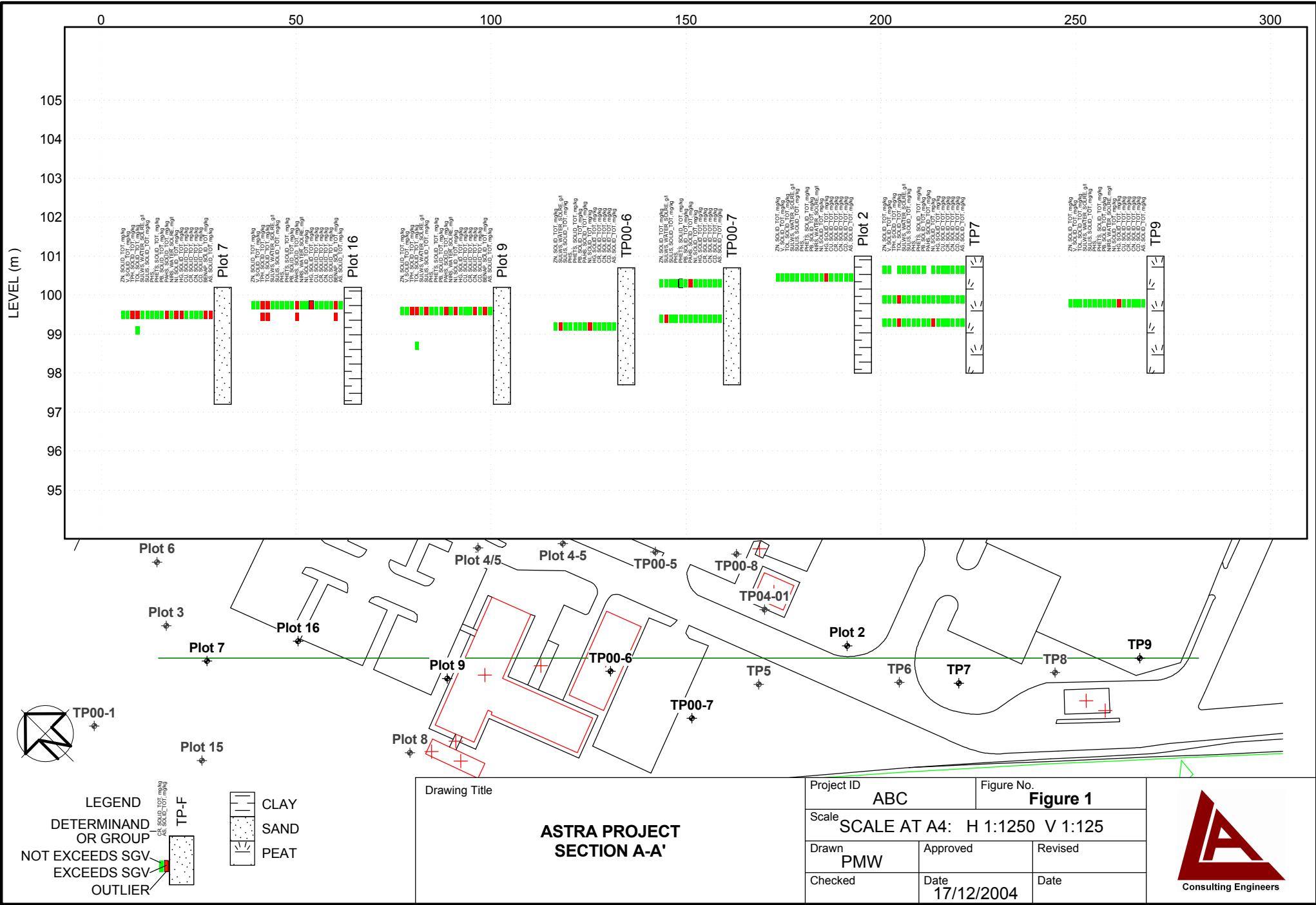
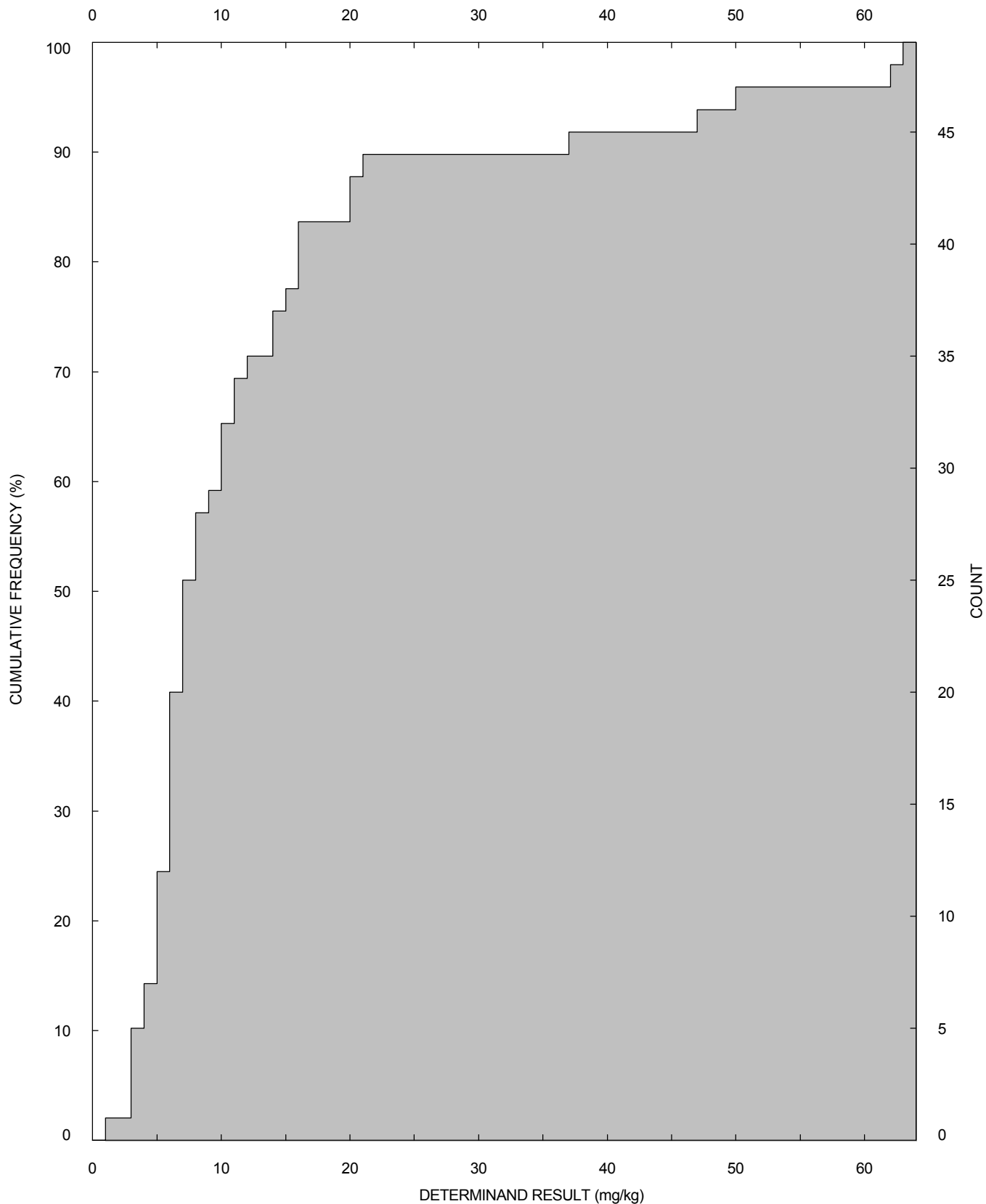




LA CONTAMINATED LAND 1.0.4.GLB Hist LA CONTAM LAND CUMUL FREQ HISTOGRAM A4P C:\PROGRAM FILES\LEEKE ASSOCIATES\LA CONTAMINATED LAND TOOL 1.0.4-C.GPJ LA CONTAMINATED LANDS 1.0-3MP.GDT <<DrawingFileSpec>> 17/12/2004 17:18:17



Number of Tests: 49
Average: 13
Minimum: 2
Maximum: 64
Standard Dev: 14

REPORT VARIABLES:
Determinand: AS SOLID_TOT mg/kg
Exclude: No

Drawing Title

**ASTRA PROJECT
CUMULATIVE FREQUENCY HISTOGRAM**

Project ID

ABC

Figure No.

FIGURE 1

Scale

Drawn

PMW

Approved

Revised

Checked

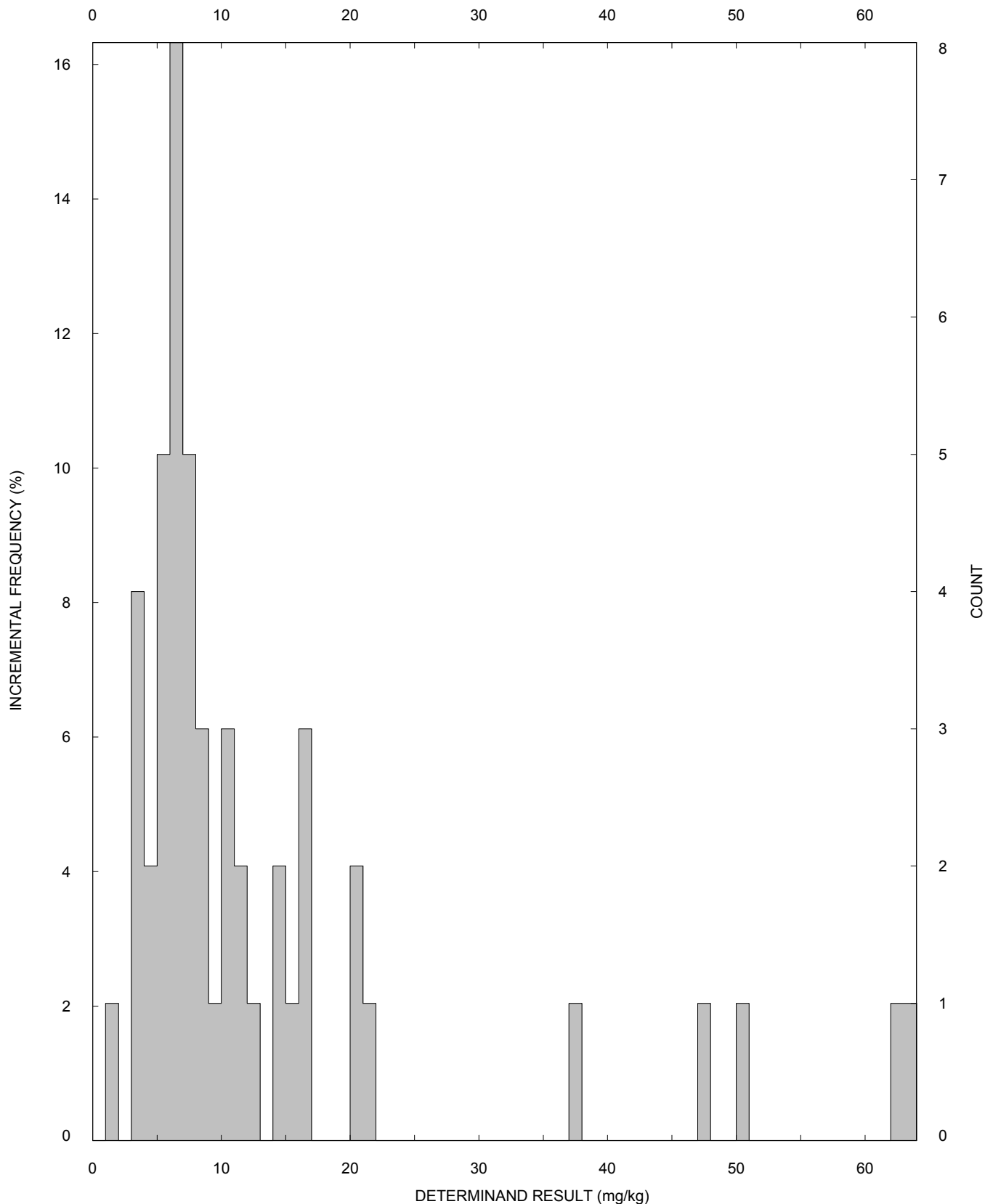
Date

17/12/2004

Date



LA CONTAMINATED LAND 1.0.4.GLB Hist LA CONTAM LAND INCREM FREQ HISTOGRAM A4P C:\PROGRAM FILES\LEEKE ASSOCIATES\LA CONTAMINATED LAND TOOL 1.0.4-C.GPJ LA CONTAMINATED LANDS 1-0-3MP.GDT <<DrawingFileSpec>> 17/12/2004 17:20:13



Number of Tests: 49
Average: 13
Minimum: 2
Maximum: 64
Standard Dev: 14

REPORT VARIABLES:
Determinand: AS SOLID_TOT mg/kg
Exclude: No

Drawing Title

**ASTRA PROJECT
INCREMENTAL FREQUENCY HISTOGRAM**

Project ID

ABC

Figure No.

FIGURE 2

Scale

Drawn

PMW

Approved

Revised

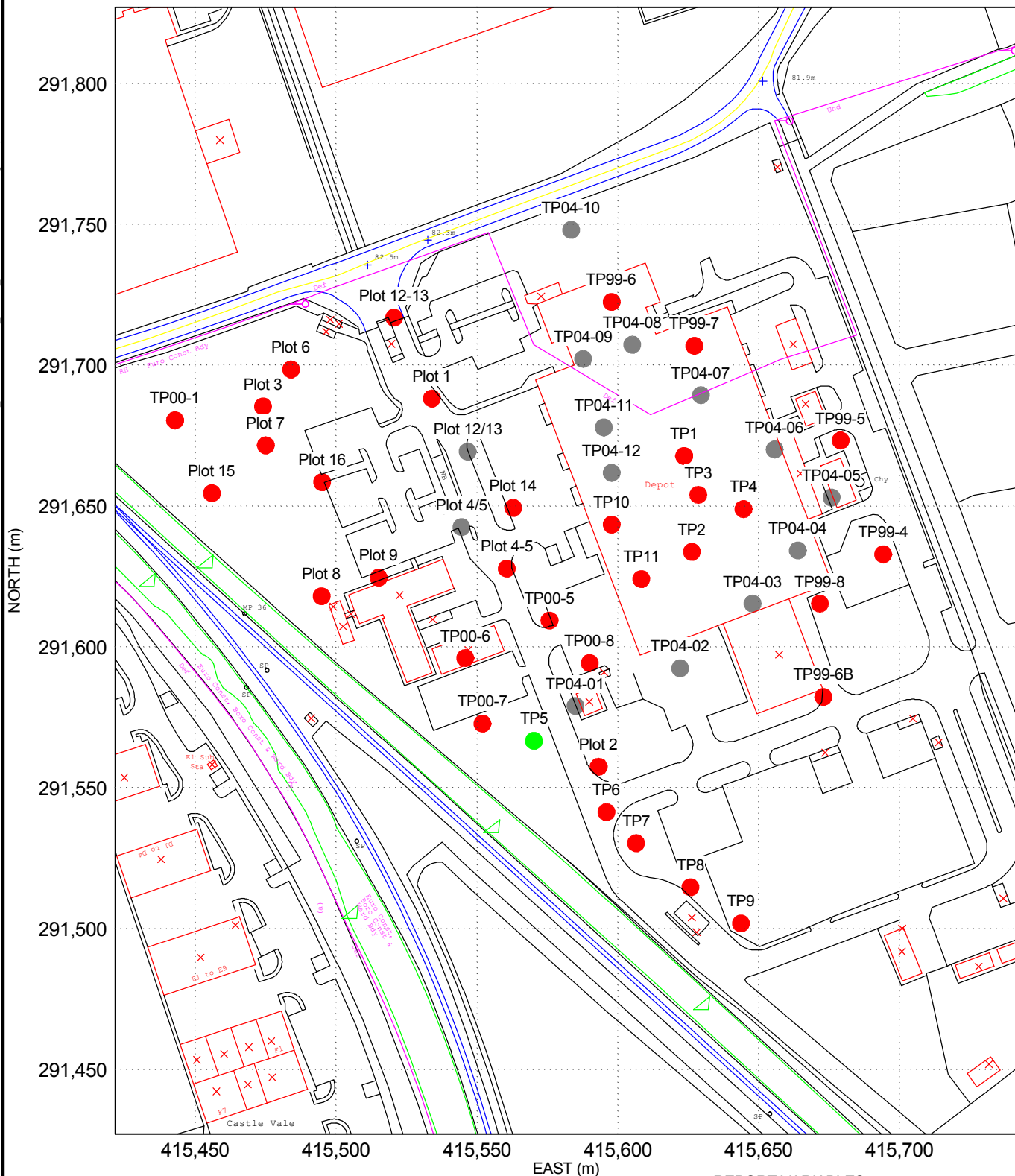
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Date

17/12/2004

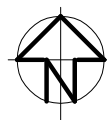
Date





LEGEND

- NOT TESTED
- NOT EXCEEDS SGV
- EXCEEDS SGV



REPORT VARIABLES:
Exclude: No

Drawing Title

**ASTRA PROJECT
CONTAMINATION MAP ALL DETERMINANDS**

Project ID

ABC

Figure No.

Figure 1

Scale
1:2000 AT A4

Drawn
PMW

Approved

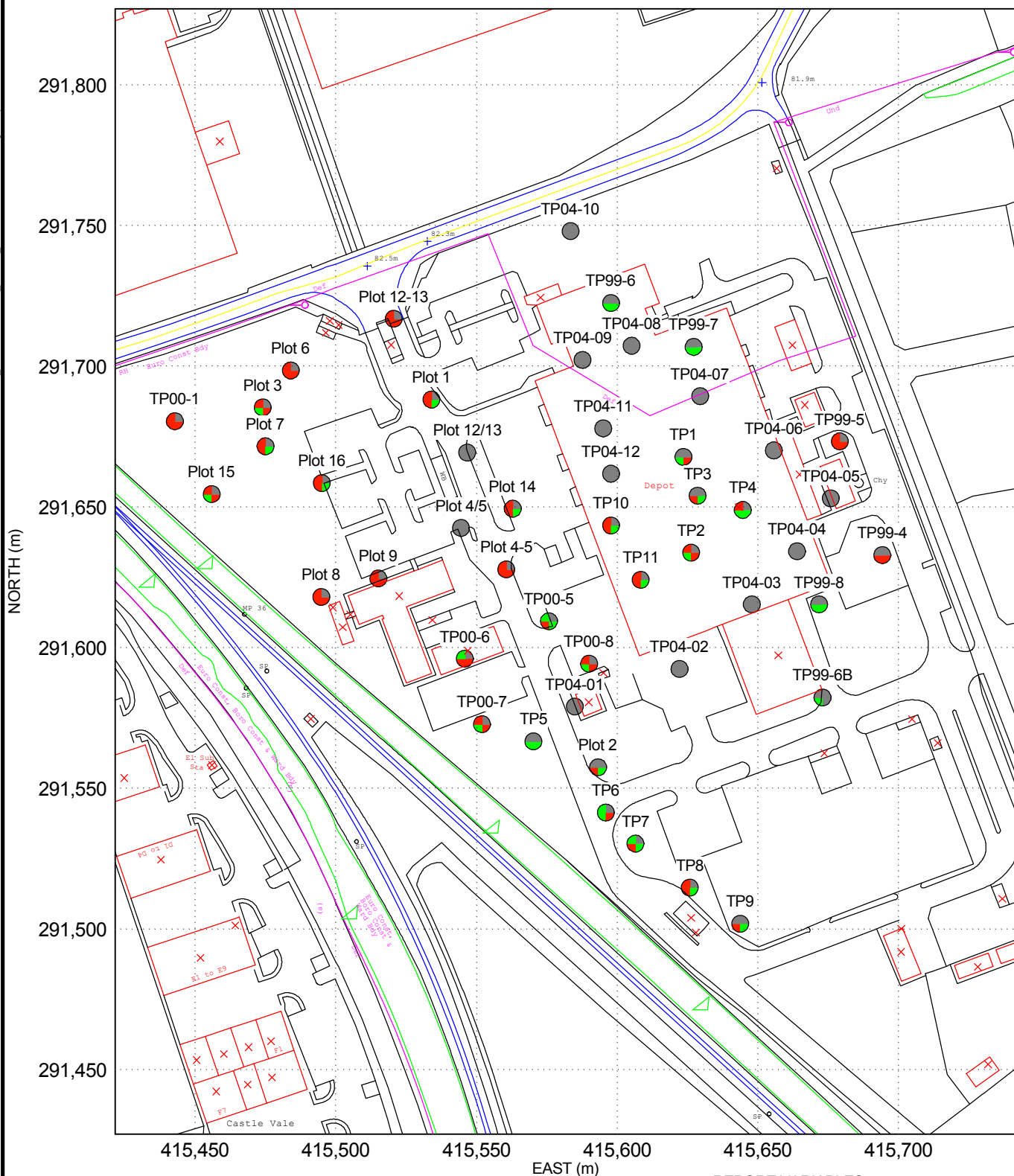
Revised

Checked

Date
17/12/2004

Date





Drawing Title

ASTRA PROJECT CONTAMINATION MAP

Project ID

ABC

Figure No.

Figure 2

Scale
1:2000 AT A4

Drawn
PMW

Approved

Revised

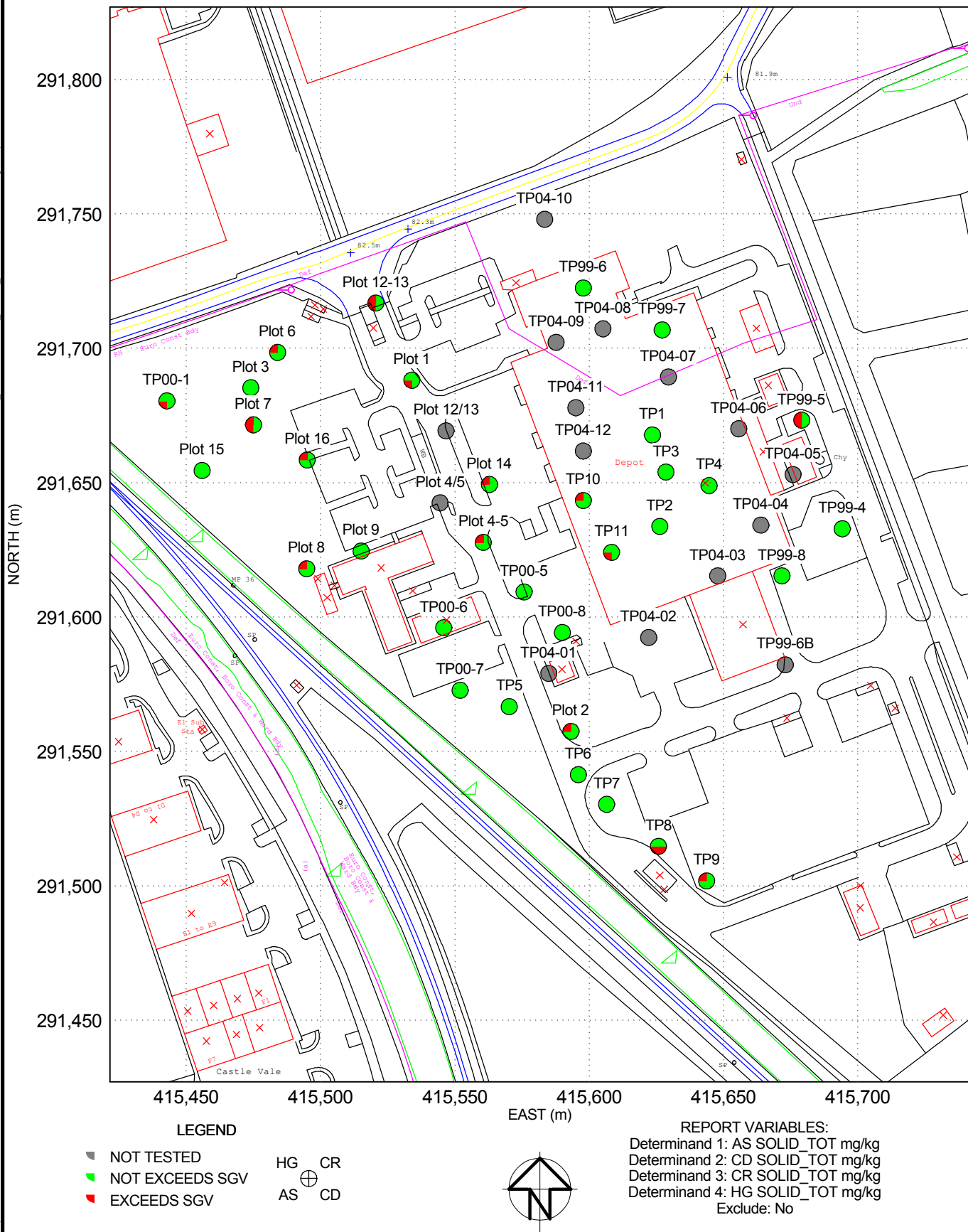
Checked

Date
17/12/2004

Date



LA CONTAMINATED LAND 1.0.4.GLB Graph: LA CONTAMINATED LAND MAP 4 CH A4P C:\PROGRAM FILES\LEEKE ASSOCIATES\LA CONTAMINATED LAND TOOL 1.0.4.C.GPJ LA CONTAMINATED LANDS 1.0-3MP.GDT <<DrawingFileSpec>> 17/12/2004 16:48:46



Drawing Title

**ASTRA PROJECT
CONTAMINATION MAP**

Project ID

ABC

Figure No.

Figure 3

Scale
1:2000 AT A4

Drawn
PMW

Approved

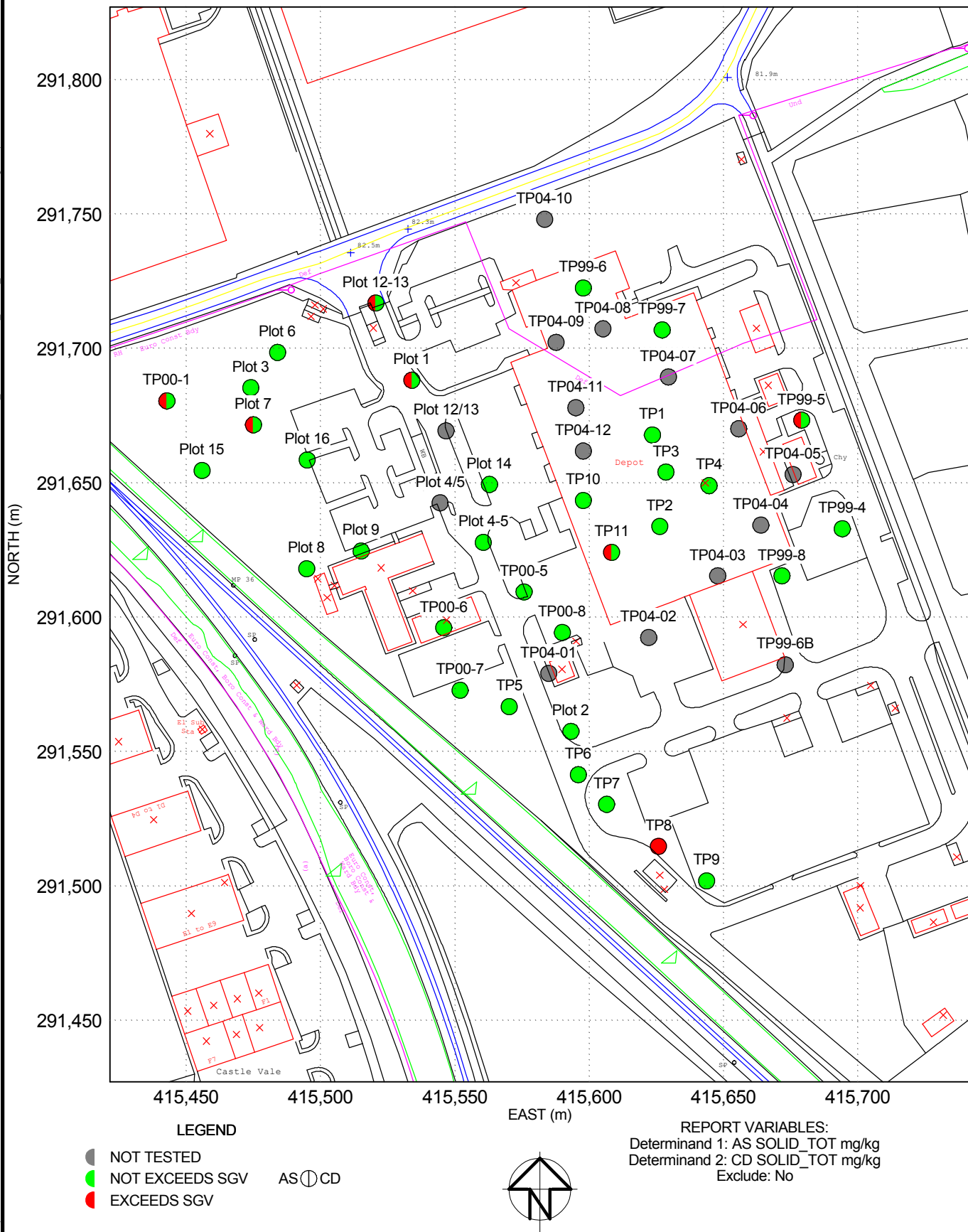
Revised

Checked

Date
17/12/2004

Date





Drawing Title

**ASTRA PROJECT
CONTAMINATION MAP**

Project ID

ABC

Figure No.

Figure 4

Scale
1:2000 AT A4

Drawn
PMW

Approved

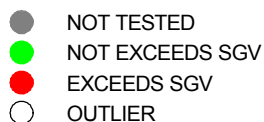
Revised

Checked

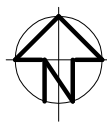
Date
17/12/2004

Date





REPORT VARIABLES:
Determinand: AS SOLID_TOT mg/kg
Exclude: No



**ASTRA PROJECT
CONTAMINATION MAP - AS**

ABC

Figure 5

Scale 1:2000 AT A4

Drawn	PMW
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Approved

Revised

Checked

Date	17/12/2004
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Date	
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Determinand	Test Type	Sub Division	Land Use	Additional Group By	Soil Guideline Value	Unit	Number	Maximum Value	Arithmetic Mean	Standard Deviation	t-Value	US _{SL}	Pass Mean Test?	Maximum Log Values	Log Arithmetic Mean	Log Standard Deviation	Outlier Test Statistic	5% Critical Value	10% Critical Value	Outlier?	Minimum SGV	Minimum Value	Pass Minimum Mean Test?	Minium Log Value	Minimum Outlier Test Statistic	Min Outlier?	Number of Data Points Excluded	Remark
1112TCE	SOLID_TOT		Residential with plant uptake	B	10	mg/kg	1		5																	0	Statistics not calculated, n < 2.	
1112TCE	SOLID_TOT		Residential with plant uptake	A	10	mg/kg	1		6																	0	Statistics not calculated, n < 2.	
AS	SOLID_TOT		Residential with plant uptake		20	mg/kg	41	64	13.571	15.492	1.684	17.645	Yes	1.806	0.963	0.3524	2.393	2.878	2.694	No		1.9		0.279	1.942	0	Values based on sandy soil.	
AS	SOLID_TOT		Residential with plant uptake	A	20	mg/kg	4	20	14.2	6.002	2.353	21.263	No	1.301	1.111	0.2379	0.798	1.462	1.425	No		5.8		0.763	1.462	0	Values based on sandy soil.	
AS	SOLID_TOT		Residential with plant uptake	B	20	mg/kg	4	14	8.125	5.2	2.353	14.243	Yes	1.146	0.834	0.3036	1.029	1.462	1.425	No		3.6		0.556	0.914	0	Values based on sandy soil.	
BENAP	SOLID_TOT		Residential with plant uptake		0	mg/kg	7	53	21.429	19.704	1.943	35.9	No	1.724	0.855	0.9726	0.894	1.938	1.828	No		0.3		-0.523	1.416	0	AERC Value	
BENAP	SOLID_TOT		Residential with plant uptake	A	0	mg/kg	5	26	14.68	8.615	2.132	22.893	No	1.415	1.098	0.2854	1.112	1.671	1.602	No		5		0.699	1.397	1	AERC Value	
BENAP	SOLID_TOT		Residential with plant uptake	B	0	mg/kg	6	301	75.917	114.537	2.015	170.141	No	2.479	1.302	0.9511	1.237	1.822	1.729	No		0.6		-0.222	1.602	0	AERC Value	
CD	SOLID_TOT		Residential with plant uptake		2	mg/kg	41	2.1	0.549	0.513	1.684	0.684	Yes	0.322	-0.552	0.5622	1.555	2.878	2.694	No		0.07		-1.155	1.072	0	Values based on sandy soil. SGV dependant on soil pH, i.e. pH6=1, pH7=2, pH8=8.	
CD	SOLID_TOT		Residential with plant uptake	A	8	mg/kg	3	0.07	0.07	0	2.92	0.07	Yes	-1.155	-1.155	0	0	1.153	1.148	No		0.07		-1.155	0	1	Values based on sandy soil. SGV dependant on soil pH, i.e. pH6=1, pH7=2, pH8=8.	
CD	SOLID_TOT		Residential with plant uptake	B	8	mg/kg	4	0.07		0	2.353	0.07	Yes	-1.155	-1.155	0	0	1.462	1.425	No		0.07		-1.155	0	0	Values based on sandy soil. SGV dependant on soil pH, i.e. pH6=1, pH7=2, pH8=8.	
CN	SOLID_TOT		Residential with plant uptake	B	20	mg/kg	3	1	1	0	2.92	1	Yes	0	0	0	0	1.153	1.148	No		1		0	0	1	dummy SGV	
CN	SOLID_TOT		Residential with plant uptake		20	mg/kg	41	2329	206.859	613.449	1.684	368.179	No	3.367	0.74	1.0136	2.592	2.878	2.694	No		1		0	0.73	0	dummy SGV	
CN	SOLID_TOT		Residential with plant uptake	A	20	mg/kg	3	3	2.667	0.577	2.92	3.64	Yes	0.477	0.418	0.1017	0.577	1.153	1.148	No		2		0.301	1.155	1	dummy SGV	
CR	SOLID_TOT		Residential with plant uptake	B	130	mg/kg	4	39	24	12.41	2.353	38.602	Yes	1.591	1.329	0.2539	1.031	1.462	1.425	No		10		1	1.297	0	Values based on sandy soil. Assumes that all Chromium is Cr(VI).	
CR	SOLID_TOT		Residential with plant uptake		130	mg/kg	41	89	37.844	15.803	1.684	42	Yes	1.949	1.529	0.2355	1.787	2.878	2.694	No		5.6		0.748	3.314	0	Values based on sandy soil. Assumes that all Chromium is Cr(VI).	
CR	SOLID_TOT		Residential with plant uptake	A	130	mg/kg	4	22	20	1.414	2.353	21.664	Yes	1.342	1.3	0.03	1.405	1.462	1.425	No		19		1.279	0.716	0	Values based on sandy soil. Assumes that all Chromium is Cr(VI).	
CU	SOLID_TOT		Residential with plant uptake		130	mg/kg	32	99	23.906	24.491	1.696	31.247	Yes	1.996	1.255	0.2901	2.554	2.773	2.592	No		7		0.845	1.413	1	AERC Value	

NOTES/KEY:

LAND USE: Residential with plant uptake, Exclude: No

CLEA MODEL SOIL CONTAMINATION STATISTICS

CLIENT: Toyota - BMW
 PROJECT: Astra Project
 LOCATION: Mazda Land
 PROJECT ID: ABC

CHECKED: ABC APPROVED: CDF DATE: 01/01/2005

PAGE: 1 OF 4

TABLE 1



Hole	Sample Depth (m)	Sample Reference	Sample Type	Sample Date and Time	Specimen Depth (m)	Specimen Reference	Specimen Description	Testing Laboratory	Test Date	Determinand	Specimen Preparation	Result	Unit	Test Type	Test Method	Remark
Plot 1	1.15		J	01/01/2004 101500	1.15					AS		3.6	mg/kg	SOLID_TOT	3.6	
Plot 1	1.15		J	01/01/2004 101500	1.15					BENAP		0.6	mg/kg	SOLID_TOT	0.6	
Plot 1	1.15		J	01/01/2004 101500	1.15					CD		<0.07	mg/kg	SOLID_TOT		
Plot 1	1.15		J	01/01/2004 101500	1.15					CN		<1	mg/kg	SOLID_TOT		
Plot 1	1.15		J	01/01/2004 101500	1.15					CR		39	mg/kg	SOLID_TOT		
Plot 1	1.15		J	01/01/2004 101500	1.15					CU		15	mg/kg	SOLID_TOT		
Plot 1	1.15		J	01/01/2004 101500	1.15					HG		0.07	mg/kg	SOLID_TOT		
Plot 1	1.15		J	01/01/2004 101500	1.15					NI		15	mg/kg	SOLID_TOT		
Plot 1	1.15		J	01/01/2004 101500	1.15					NIRS		9	mg/l	WATER_SOLRE		
Plot 1	1.15		J	01/01/2004 101500	1.15					PAHS		9.5	mg/kg	SOLID_TOT		
Plot 1	1.15		J	01/01/2004 101500	1.15					PB		25	mg/kg	SOLID_TOT		
Plot 1	1.15		J	01/01/2004 101500	1.15					PHETS		<0.5	mg/kg	SOLID_TOT		
Plot 1	1.15		J	01/01/2004 101500	1.15					PHS		7.85				
Plot 1	1.15		J	01/01/2004 101500	1.15					SULIS		1	mg/kg	SOLID_TOT		
Plot 1	1.15		J	01/01/2004 101500	1.15					SULWS		0.03	g/l	WATER_SOLRE		
Plot 1	1.15		J	01/01/2004 101500	1.15					TOL		1066	mg/kg	SOLID_TOT		
Plot 1	1.15		J	01/01/2004 101500	1.15					TPH		350	mg/kg	SOLID_TOT		
Plot 1	1.15		J	01/01/2004 101500	1.15					V		37	mg/kg	SOLID_TOT		
Plot 1	1.15		J	01/01/2004 101500	1.15					ZN		81	mg/kg	SOLID_TOT		
Plot 12-13	0.6		J	01/01/2004 101700	0.6					1112TCE		6	mg/kg	SOLID_TOT		
Plot 12-13	0.6		J	01/01/2004 101700	0.6					AS		20	mg/kg	SOLID_TOT		
Plot 12-13	0.6		J	01/01/2004 101700	0.6					BENAP		26	mg/kg	SOLID_TOT		
Plot 12-13	0.6		J	01/01/2004 101700	0.6					CD		<u>0.25</u>	mg/kg	SOLID_TOT		
Plot 12-13	0.6		J	01/01/2004 101700	0.6					CN		89	mg/kg	SOLID_TOT		
Plot 12-13	0.6		J	01/01/2004 101700	0.6					CR		19	mg/kg	SOLID_TOT		
Plot 12-13	0.6		J	01/01/2004 101700	0.6					CU		121	mg/kg	SOLID_TOT		
Plot 12-13	0.6		J	01/01/2004 101700	0.6					HG		28	mg/kg	SOLID_TOT		
Plot 12-13	0.6		J	01/01/2004 101700	0.6					NI		28	mg/kg	SOLID_TOT		
Plot 12-13	0.6		J	01/01/2004 101700	0.6					NIRS		8	mg/l	WATER_SOLRE		
Plot 12-13	0.6		J	01/01/2004 101700	0.6					PAHS		300	mg/kg	SOLID_TOT		
Plot 12-13	0.6		J	01/01/2004 101700	0.6					PB		0.11	mg/kg	SOLID_TOT		
Plot 12-13	0.6		J	01/01/2004 101700	0.6					PHETS		<0.5	mg/kg	SOLID_TOT		
Plot 12-13	0.6		J	01/01/2004 101700	0.6					PHS		7.4				
Plot 12-13	0.6		J	01/01/2004 101700	0.6					SULIS		14	mg/kg	SOLID_TOT		
Plot 12-13	0.6		J	01/01/2004 101700	0.6					SULWS		0.87	g/l	WATER_SOLRE		
Plot 12-13	0.6		J	01/01/2004 101700	0.6					TOL		41249	mg/kg	SOLID_TOT		
Plot 12-13	0.6		J	01/01/2004 101700	0.6					TPH		4347	mg/kg	SOLID_TOT		
Plot 12-13	0.6		J	01/01/2004 101700	0.6					V		19	mg/kg	SOLID_TOT		
Plot 12-13	0.6		J	01/01/2004 101700	0.6					ZN		270	mg/kg	SOLID_TOT		

NOTES/KEY: 1. Bold red text - Exceeds SGV
2. Underlined text - Outlier
3. Minimum/Maximum where applicable
4. Italic text - Excluded from statistics

LAND USE: Residential with plant uptake, Exclude: No

SOIL CONTAMINATION RESULTS

CLIENT: Toyota - BMW
PROJECT: Astra Project
LOCATION: Mazda Land
PROJECT ID: ABC

CHECKED: ABC APPROVED: CDF DATE: 01/01/2005

PAGE: 1 OF 21

TABLE 2



LA CONTAMINATED LAND 1.0.4.GLB G6cTb LA CONTAM LAND CNMT A4P C:\PROGRAM FILES\LEEKE ASSOCIATES\LA CONTAMINATED LAND TOOL 1.0.4\DATA\PROJECT\LA CONTAMINATED LAND 1.0.4.C.GPJ LA CONTAMINATED LANDS 1.0.3MP.GDT <<DrawingFileSpec>> 17/12/2004 17:29:45

CLIENT: Toyota - BMW
PROJECT: Astra Project
LOCATION: Mazda Land
PROJECT ID: ABC
LAND USE: Residential with plant uptake, Exclude: No

SOIL CONTAMINATION RESULTS



Hole	Sample Depth (m)	Sample Reference	Sample Type	Sample Date and Time	Specimen Depth (m)	Specimen Reference	Specimen Description	Testing Laboratory	Test Date	Determinand	Specimen Preparation	Result	Unit	Test Type	Test Method
Plot 1	1.15		J	01/01/2004 101500	1.15					AS		3.6	mg/kg	SOLID_TOT	3.6
Plot 1	1.15		J	01/01/2004 101500	1.15					BENAP		0.6	mg/kg	SOLID_TOT	0.6
Plot 1	1.15		J	01/01/2004 101500	1.15					CD		<0.07	mg/kg	SOLID_TOT	
Plot 1	1.15		J	01/01/2004 101500	1.15					CN		<1	mg/kg	SOLID_TOT	
Plot 1	1.15		J	01/01/2004 101500	1.15					CR		39	mg/kg	SOLID_TOT	
Plot 1	1.15		J	01/01/2004 101500	1.15					CU		15	mg/kg	SOLID_TOT	
Plot 1	1.15		J	01/01/2004 101500	1.15					HG		0.07	mg/kg	SOLID_TOT	
Plot 1	1.15		J	01/01/2004 101500	1.15					NI		15	mg/kg	SOLID_TOT	
Plot 1	1.15		J	01/01/2004 101500	1.15					NIRS		9	mg/l	WATER_SOLRE	
Plot 1	1.15		J	01/01/2004 101500	1.15					PAHS		9.5	mg/kg	SOLID_TOT	
Plot 1	1.15		J	01/01/2004 101500	1.15					PB		25	mg/kg	SOLID_TOT	
Plot 1	1.15		J	01/01/2004 101500	1.15					PHETS		<0.5	mg/kg	SOLID_TOT	
Plot 1	1.15		J	01/01/2004 101500	1.15					PHS		7.85			
Plot 1	1.15		J	01/01/2004 101500	1.15					SULIS		1	mg/kg	SOLID_TOT	
Plot 1	1.15		J	01/01/2004 101500	1.15					SULWS		0.03	g/l	WATER_SOLRE	
Plot 1	1.15		J	01/01/2004 101500	1.15					TOL		1066	mg/kg	SOLID_TOT	
Plot 1	1.15		J	01/01/2004 101500	1.15					TPH		350	mg/kg	SOLID_TOT	
Plot 1	1.15		J	01/01/2004 101500	1.15					V		37	mg/kg	SOLID_TOT	
Plot 1	1.15		J	01/01/2004 101500	1.15					ZN		81	mg/kg	SOLID_TOT	
Plot 12-13	0.6		J	01/01/2004 101700	0.6					1112TCE		6	mg/kg	SOLID_TOT	
Plot 12-13	0.6		J	01/01/2004 101700	0.6					AS		20	mg/kg	SOLID_TOT	
Plot 12-13	0.6		J	01/01/2004 101700	0.6					BENAP		26	mg/kg	SOLID_TOT	
Plot 12-13	0.6		J	01/01/2004 101700	0.6					CD		0.25	mg/kg	SOLID_TOT	
Plot 12-13	0.6		J	01/01/2004 101700	0.6					CN		89	mg/kg	SOLID_TOT	
Plot 12-13	0.6		J	01/01/2004 101700	0.6					CR		19	mg/kg	SOLID_TOT	
Plot 12-13	0.6		J	01/01/2004 101700	0.6					CU		121	mg/kg	SOLID_TOT	
Plot 12-13	0.6		J	01/01/2004 101700	0.6					HG		28	mg/kg	SOLID_TOT	
Plot 12-13	0.6		J	01/01/2004 101700	0.6					NI		28	mg/kg	SOLID_TOT	
Plot 12-13	0.6		J	01/01/2004 101700	0.6					NIRS		8	mg/l	WATER_SOLRE	

NOTES/KEY: 1. Bold red text - Exceeds SGV
2. Underlined text - Outlier
3. Minimum/Maximum where applicable
4. Italic text - Excluded from statistics

CHECKED: ABC APPROVED: CDF DATE: 01/01/2005

LA CONTAMINATED LAND 1.0.4.GLB - G:\ETI LA CONTAM LAND CROSS TAB A\P C:\PROGRAM FILES\LEEKE ASSOCIATES\LA CONTAMINATED LAND TOOL 1.0.4\DATA\PROJECT\LA CONTAMINATED LAND 1.0.4.C.GPJ LA CONTAMINATED LANDS_1.0-3MP.GDT C:\PROGRAM FILES\GINT\TEMP\DWG52872.GDW 18/12/2004 10:42:08

CLIENT: Toyota - BMW
PROJECT: Astra Project
LOCATION: Mazda Land
PROJECT ID: ABC
LAND USE: Residential with plant uptake, DETERMINAND GROUP: PAHs, ADDITIONAL GROUP BY: B, Exclude: Yes

SOIL CONTAMINATION STATISTICS
AND RESULTS



ADDITIONAL GROUP BY B B

DETERMINAND BENAP PAHS

SGV 0 50

US₉₅ **170.14** **1212.27**

x CRITICAL 10% 884.00 6361.93

OUTLIER No No

HOLE DEPTH (m) mg/kg mg/kg

Plot 1	1.15	0.6	9.5											
Plot 15	0.4	77	743											
Plot 15	0.85	10	272											
Plot 16	0.35	301	1991											
Plot 16	0.65	59	564											
Plot 3	0.3	7.9	75											

LA CONTAMINATED LAND 1.0.4.GLB Grctbl LA CONTAM LAND CROSSTAB2 A4P C:\PROGRAM FILES\LEEKE ASSOCIATES\LA CONTAMINATED LAND TOOL 1.0.4\DATA\PROJECT\LA CONTAMINATED LAND 1.0.4-C.GPJ LA CONTAMINATED LANDS_1.0-3.MP.GDT <<DrawingFilesSpec>> 18/12/2004 11:08:06

CLIENT: Toyota - BMW
PROJECT: Astra Project
LOCATION: Mazda Land
PROJECT ID: ABC

SOIL CONTAMINATION STATISTICS
AND RESULTS



LAND USE: Residential with plant uptake, DETERMINAND GROUP: Metals, ADDITIONAL GROUP BY: B, Exclude: Yes

ADDITIONAL GROUP BY	B	B	B	B	B	B	B	B	B
DETERMINAND	AS	CD	CR	CU	HG	NI	PB	V	ZN
SGV	20	8	130	130	8	50	450	150	300
US ₉₅	14.24	0.07	38.60	66.00	0.14	17.69	324.31	41.44	158.46
x CRITICAL 10%	18.48	0.07	49.07	83.20	0.12	17.19	677.80	53.22	177.96
OUTLIER	No	No	No	No	No	No	No	No	No
UNIT	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	3.6	<0.07	39	15	0.07	15	25	37	81
	14	<0.07	19	41	0.12	16	79	31	145
	11	<0.07	10	70	0.06	17	0.12	13	148
	3.9	<0.07	28	17			39	34	79