AP - 2

STAGE 1 & 2 REPORTS

(APPENDIX I - VII)

DATE:

July 1999

WESTGATE SUBDIVISION, GRIMES BATTERY and TASKER ROAD

STAGE 1 ABATEMENT PLAN REPORT (SITE ASSESSMENT INVESTIGATION)

July 1999

RECEIVED
JUL 01 1999
ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Shell Exploration and Production Company
Houston, Texas

Prepared by

BBC International, Incorporated
ARCADIS Geraghty & Miller

Appendix I

Lithology Logs

BBC INTERNATIONAL
INCORPORATED

RECORD OF SUBSURFACE EXPLORATION

Soil Boring GMW-11

Project Name: Shell Westgate
Project No.:
Borehole Location: Hobbs, NM
Logged By: Sharon Hall
Drilled By: Eades Drilling Co.
Drilling/Rig Methods: Rotary Air
Date/Time Started: 2/4/99 9:00
Date/Time Completion(s): 2/4/99 11:25
Air Monitoring Type:
GWL Depth:

Depth (feet)	Sample Number	Sample Interval	Sample Type	Sample Description	PID Readings (ppm)	USCS Symbol	Comments
0-							
-				Sand, buff to tan, clayey, fine grained, contains clay		SW/CL	
5		3-5	SS		0		No hydrocarbon odor or stain
-				No sample, too hard		SS	
--10		8-10					No sample, too hard
-				Sand, white to creme color		SW	No stain or odor on cuttings
--15		13-15	SS				No sample, too hard
-				Sand, white to tan, hard, fine grained, contains clay			No stain or odor on cuttings
--20	GMW11	19-21	SS		0.3	SW/CL	No hydrocarbon odor or stain
--25		23-25	SS		0		No hydrocarbon odor or stain
-							
--30		28-30	SS		0		No hydrocarbon odor or stain
-				Sand, buff to tan, medium grained, contains limestone		SW	
--35		33-35	SS		0		No hydrocarbon odor or stain
-							
-		38-40	SS		0		No hydrocarbon odor or stain
--40							

Comments:

Geologist Signature

BBC INTERNATIONAL
INCORPORATED

RECORD OF SUBSURFACE EXPLORATION

Project Name: Shell Westgate — Project No.
Borehole Location: Hobbs, NM — Logged By: Sharon Hall
Drilled By: Eades Drilling Co. — Drilling/Rig Methods: Rotary Air
Date/Time Started: 2/4/99 11:50 — Date/Time Completion(s): 2/4/99 2:00
Air Monitoring Type: — GWL Depth:

Depth (feet)	Sample Number	Sample Interval	Sample Type	Sample Description	PID Readings (ppm)	USCS Symbol	Comments
--45		43-45	SS	Sand, buff to tan, med. grain, traces of gypsum	0	SW	No hydrocarbon odor or stain
--50		48-50	SS	Sand, buff to tan, medium grained	0		No hydrocarbon odor or stain
--55		53-55		No sample, too hard		SS	No sample, too hard No stain or odor on cuttings
--60		58-60	SS	Sand, buff to tan, medium grained	0	SW	No hydrocarbon odor or stain, slightly moist
--65	GMW11	63-65	SS	Sand, buff to tan, medium grained	0		No hydrocarbon odor or stain Wet at 63.5 feet
--75				Drilled 76 feet to install Monitor Well			
--80							

Comments:

Geologist Signature

BBC INTERNATIONAL
INCORPORATED

RECORD OF SUBSURFACE EXPLORATION

Soil Boring GSB-12

Project Name: Shell Westgate — Project No.:
Borehole Location: Hobbs, NM — Logged By: Sharon Hall
Drilled By: Eades Drilling Co. — Drilling/Rig Methods: Rotary Air
Date/Time Started: 2/1/99 9:50 — Date/Time Completion(s): 2/1/99 10:45
Air Monitoring Type: — GWL Depth:

Depth (feet)	Sample Number	Sample Interval	Sample Type	Sample Description	PID Readings (ppm)	USCS Symbol	Comments
0-							
5		3-5	SS	Sand, tan to beige, fine grained	0	SW	No hydrocarbon odor or stain
--10	GSB12	8-10	SS		0.2		No hydrocarbon odor or stain
				Sand, tan to beige, fine grained, contains clay		SW/CL	
--15		13-15	SS		0		Minor hydrocarbon odor and minor staining
				Sand, tan to beige, fine grained, contains clay			
--20	GSB12	18-20	SS		0		No hydrocarbon odor or stain
				Boring Terminated at 20 feet			
--25							
--30							
--35							
--40							

Comments:

Geologist Signature

BBC INTERNATIONAL
INCORPORATED

RECORD OF SUBSURFACE EXPLORATION

Soil Boring GSB-13

Project Name: Shell Westgate
Project No.:
Borehole Location: Hobbs, NM
Logged By: Sharon Hall
Drilled By: Eades Drilling Co.
Drilling/Rig Methods: Rotary Air
Date/Time Started: 2/1/99 12:50
Date/Time Completion(s): 2/1/99 1:30
Air Monitoring Type:
GWL Depth:

Depth (feet)	Sample Number	Sample Interval	Sample Type	Sample Description	PID Readings (ppm)	USCS Symbol	Comments
0-				Sand, tan to beige, fine grained		SW	
5		3-5	SS		0		No hydrocarbon odor or stain
--10		8-10	SS	Sand, tan to beige, fine grained	0	SW	No hydrocarbon odor or stain
--15		13-15		No sample, too hard		SS	No sample, too hard
--20	GSB13	18-20	SS	Sand, tan to beige, fine grained	0	SW	No hydrocarbon odor or stain
--25				Boring Terminated at 20 feet			
--30							
--35							
--40							

Comments:

Geologist Signature

BBC INTERNATIONAL
INCORPORATED

RECORD OF SUBSURFACE EXPLORATION

Soil Boring GSB-14

Project Name: Shell Westgate Project No.:
Borehole Location: Hobbs, NM Logged By: Sharon Hall
Drilled By: Eades Drilling Co. Drilling/Rig Methods: Rotary Air
Date/Time Started: 2/1/99 2:25 Date/Time Completion(s): 2/1/99 3:55
Air Monitoring Type: GWL Depth:

Depth (feet)	Sample Number	Sample Interval	Sample Type	Sample Description	PID Readings (ppm)	USCS Symbol	Comments
0-							
5		3-5	SS		0		No hydrocarbon odor or stain
--10	GSB14	8-10	SS	Sand, tan to beige, fine grained	0	SW	No hydrocarbon odor or stain
--15		13-15	SS		0		No hydrocarbon odor or stain
--20	GSB14	18-20	SS		0		No hydrocarbon odor or stain
--25				Boring Terminated at 20 feet			
--30							
--35							
--40							

Comments:

Geologist Signature

BBC INTERNATIONAL
INCORPORATED

RECORD OF SUBSURFACE EXPLORATION

Soil Boring GSB-15

Project Name: Shell Westgate
Project No.
Borehole Location: Hobbs, NM
Logged By: Sharon Hall
Drilled By: Eades Drilling Co.
Drilling/Rig Methods: Rotary Air
Date/Time Started: 2/2/99 8:35
Date/Time Completion(s): 2/2/99 9:55
Air Monitoring Type:
GWL Depth:

Depth (feet)	Sample Number	Sample Interval	Sample Type	Sample Description	PID Readings (ppm)	USCS Symbol	Comments
0-5		3-5	SS	Sand, tan to beige, fine grained	0	SW	No hydrocarbon odor or stain
-10	GSB15	8-10	SS		0.1		No hydrocarbon odor or stain
				No sample, too hard		SS	
-15		13-15	SS		NS		No sample, too hard No odor or staining on cuttings
				Sand stone, white, hard		SS	
-20	GSB15	19-21	SS		0		No hydrocarbon odor or stain
				Boring Terminated at 21 feet			
-25							
-30							
-35							
-40							

Comments:

Geologist Signature

BBC INTERNATIONAL
INCORPORATED

RECORD OF SUBSURFACE EXPLORATION

Soil Boring GSB-16

Project Name: Shell Westgate
Project No.
Borehole Location: Hobbs, NM
Logged By: Sharon Hall
Drilled By: Eades Drilling Co.
Drilling/Rig Methods: Rotary Air
Date/Time Started: 2/8/99 2:05
Date/Time Completion(s): 2/8/99 3:45
Air Monitoring Type:
GWL Depth:

Depth (feet)	Sample Number	Sample Interval	Sample Type	Sample Description	PID Readings (ppm)	USCS Symbol	Comments
0-				Topsoil upper 6"			
-				Sand, fine grained, crème and tan color			
-							
5	GSB-16	3-5	SS		0		No hydrocarbon odor or stain
-							
-				Sand, tan, fine grained, calcite veins		SW	
-							
--10		8-10	SS		0		No hydrocarbon odor or stain
-							
-							
-				Sand, white to crème, medium grained			
--15						SW	
-							
-		12-18					No sample, too hard
-							No odor or stain on cuttings
--20		18-20	SS		0		
-							
-							
-				Sand, white to buff, medium grained,		SW/CL	No hydrocarbon odor or stain
--25				contains clay			
-							
-							
-		23-29		Sandstone, hard, buff, medium grained		SS	No sample, too hard
--30							No odor or stain on cuttings
-		29-31	SS		0		No hydrocarbon odor or stain
-							
-							
--35		33-35	SS	Sand, buff, medium grained	0	SW	No hydrocarbon odor or stain
-							
-							
-							
--40	GSB-16	38-40	SS	Boring Terminated at 40 feet	0		No hydrocarbon odor or stain

Comments:

Geologist Signature

BBC INTERNATIONAL
INCORPORATED

RECORD OF SUBSURFACE EXPLORATION

Soil Boring GSB-17

Project Name: Shell Westgate
Project No.
Borehole Location: Hobbs, NM
Logged By: Sharon Hall
Drilled By: Eades Drilling Co.
Drilling/Rig Methods: Rotary Air
Date/Time Started: 2/8/99 8:55
Date/Time Completion(s): 2/8/99 11:38
Air Monitoring Type:
GWL Depth:

Depth (feet)	Sample Number	Sample Interval	Sample Type	Sample Description	PID Readings (ppm)	USCS Symbol	Comments
0-				Sand, contains clay, buff to tan, hard		SW/CL	
5	GSB-17	3-5	SS		0		No hydrocarbon odor or stain
--10				No sample taken, too hard, crème, med. grained		SS	No odor or stain on cuttings
--15							
--20		8-20					No sample, too hard
		20-22	SS	Sand, contains clay, crème, medium grained	0	SS/CL	No hydrocarbon odor or stain
--25				Sandstone, hard, crème, medium grained		SS	
		23-28					No sample, too hard
--30		28-30	SS		0		No hydrocarbon odor or stain
--35		33-35	SS	Sand, buff to tan, fine grained	0	SW	No hydrocarbon odor or stain
--40	GSB-17	38-40	SS	Boring Terminated at 40 feet	0		No hydrocarbon odor or stain

Comments:

Geologist Signature

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RECORD OF SUBSURFACE EXPLORATION

Project Name: Shell Westgate
Project No.
Borehole Location: Hobbs, NM
Logged By: Sharon Hall
Drilled By: Eades Drilling Co.
Drilling/Rig Methods: Rotary Air
Date/Time Started: 2/2/99 1:50
Date/Time Completion(s): 2/3/99 4:40
Air Monitoring Type:
GWL Depth:

Depth (feet)	Sample Number	Sample Interval	Sample Type	Sample Description	PID Readings (ppm)	USCS Symbol	Comments
0-							
5		3-5	SS		0	SW/CL	No hydrocarbon odor or stain
--10		8-10	SS	Sand, contains clay, tan, fine grained	101		Strong hydrocarbon odor, staining
--15		13-15	SS	Hard Sand at 15'	89		Strong hydrocarbon odor, staining
--20		18-20		No sample, too hard		SS	No sample, too hard
		20-22	SS	Sand, contains clay, medium grained	174		Hydrocarbon odor, staining
--25		23-25		No sample, too hard		SS	No sample, too hard
--30		29-31	SS	Sand , tan, medium grained	183	SW	Hydrocarbon odor, staining
--35		33-35	SS		124		Hydrocarbon odor, staining, moist
--40	TMW4	40-42	SS		195		Odor, staining, slightly moist

Comments:

Geologist Signature

BBC INTERNATIONAL
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RECORD OF SUBSURFACE EXPLORATION

Project Name: Shell Westgate — Project No.:
Borehole Location: Hobbs, NM — Logged By: Sharon Hall
Drilled By: Eades Drilling Co. — Drilling/Rig Methods: Rotary Air
Date/Time Started: 2/2/99 4:40 — Date/Time Completion(s): 2/3/99 10:24
Air Monitoring Type: — GWL Depth:

Depth (feet)	Sample Number	Sample Interval	Sample Type	Sample Description	PID Readings (ppm)	USCS Symbol	Comments
-45		43-45	SS	SS, tan, hard sand layers	125		Hydrocarbon odor, staining
				2/3/99 9:00 – 10:24			
-50		48-50	SS	Sand, tan, medium grained, contains hard sandstone	194	SW/SS	Hydrocarbon odor, staining
-55		53-55	SS	Sand, tan, medium grained	159	SW	Hydrocarbon odor, staining
-60		58-60	SS		77	SW	Hydrocarbon odor, staining
-65	TMW4	63-65	SS	Sand, contains clay, tan, medium grained	9	SW/CL	Hydrocarbon odor, staining wet at 64 feet
-70				Drilled to 74 feet to install Monitor Well			
-75							
-80							

Comments:

Geologist Signature

BBC INTERNATIONAL
INCORPORATED

RECORD OF SUBSURFACE EXPLORATION

Soil Boring TMW-5

Project Name: Shell Westgate
Project No.
Borehole Location: Hobbs, NM
Logged By: Sharon Hall
Drilled By: Eades Drilling Co.
Drilling/Rig Methods: Rotary Air
Date/Time Started: 2/26/99 8:30
Date/Time Completion(s): 2/26/99 10:34
Air Monitoring Type:
GWL Depth:

Depth (feet)	Sample Number	Sample Interval	Sample Type	Sample Description	PID Readings (ppm)	USCS Symbol	Comments
0-				4" topsoil, buff to tan, clay and sand			
5		3-5	SS		0		No hydrocarbon odor or stain
				Sand and clay, buff to tan, medium grained		SW/CL	
--10		8-10	SS		0		No hydrocarbon odor or stain
				Sand stone and sand, buff to tan, medium grained		SW/SS	
--15		13-15	SS		0		No hydrocarbon odor or stain
				Sand, creme, medium to fine grained, contains clay			
--20		18-20	SS		0		No hydrocarbon odor or stain No stain or odor on cuttings
				Limestone, hard, dense, tan			
--25		23-25				L	No sample, too hard No stain or odor on cuttings
--30		28-30	SS	Sand, medium grained, buff to creme	0	SW	No hydrocarbon odor or stain
--35		33-35	SS		0		No hydrocarbon odor or stain
				Sand, tan, medium grained		SW	
--40		38-40	SS		0		No hydrocarbon odor or stain, moist

Comments:

Geologist Signature

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RECORD OF SUBSURFACE EXPLORATION

Project Name: Shell Westgate
Project No.
Borehole Location: Hobbs, NM
Logged By: Sharon Hall
Drilled By: Eades Drilling Co.
Drilling/Rig Methods: Rotary Air
Date/Time Started: 2/26/99 10:55
Date/Time Completion(s): 2/26/99 12:23
Air Monitoring Type:
GWL Depth:

Depth (feet)	Sample Number	Sample Interval	Sample Type	Sample Description	PID Readings (ppm)	USCS Symbol	Comments
-45		43-45	SS		1		Slight hydrocarbon odor, slight staining, moist
-50	TMW-5	48-50	SS	Sand, tan, medium grained	23	SW	No hydrocarbon odor or stain, very moist
-55		53-55	SS		17		Slight hydrocarbon odor, slight stain
-60		58-60	SS		7		No hydrocarbon odor or stain
				Sand, contains clay, wet, tan, medium grained		SW/CL	
-65	TMW-5	63-65	SS		3		No hydrocarbon odor or stain, very moist
-70				Drilled to 75 feet to install Monitor Well			
-75							
-80							

Comments:

Geologist Signature

BBC INTERNATIONAL
INCORPORATED

RECORD OF SUBSURFACE EXPLORATION

Soil Boring TSB-15

Project Name: Shell Westgate
Project No.
Borehole Location: Hobbs, NM
Logged By: Sharon Hall
Drilled By: Eades Drilling Co.
Drilling/Rig Methods: Rotary Air
Date/Time Started: 2/2/99 11:20
Date/Time Completion(s): 2/2/99 12:03
Air Monitoring Type:
GWL Depth:

Depth (feet)	Sample Number	Sample Interval	Sample Type	Sample Description	PID Readings (ppm)	USCS Symbol	Comments
0-							
5		3-5	SS	Sand, buff to tan, fine grained	0	SW	No hydrocarbon odor or stain
--10		8-10	SS		0		No hydrocarbon odor or stain
				Sand, buff to tan, medium grained, hard		SW	
--15	TSB15	13-15	SS		0.8		No hydrocarbon odor or stain
				Sand, buff to tan, fine grained		SW	
--20		18-20	SS		0.1		No hydrocarbon odor or stain
				Sand, white to buff, medium grained		SW	
--25	TSB15	23-25	SS		0		No hydrocarbon odor or stain
				Boring Terminated at 25 feet			
--30							
--35							
--40							

Comments:

Geologist Signature

BBC INTERNATIONAL
INCORPORATED

RECORD OF SUBSURFACE EXPLORATION

Project Name: Shell Westgate
Project No.
Borehole Location: Hobbs, NM
Logged By: Sharon Hall
Drilled By: Eades Drilling Co.
Drilling/Rig Methods: Rotary Air
Date/Time Started: 2/9/99 9:20
Date/Time Completion(s): 2/9/99 11:06
Air Monitoring Type:
GWL Depth:

Depth (feet)	Sample Number	Sample Interval	Sample Type	Sample Description	PID Readings (ppm)	USCS Symbol	Comments
0-				Topsoil upper 4"			
-				Sand, buff to tan, fine grained			
-		2-3	SS		0		Topsoil very hard
-							
5		3-5	SS		0		No hydrocarbon odor or stain
-							
-							
-							
--10		8-10	SS		44		Strong hydrocarbon odor, staining
-							
-							
-		13-14			82		Strong hydrocarbon odor, staining
--15							
-				Sand, buff to tan, fine grained		SW	
-							
-							
--20	TSB-16	18-20	SS		162		Strong hydrocarbon odor, staining
-							
-							
-							
--25		23-25	SS		99		Strong hydrocarbon odor, staining
-							
-							
-							
--30		28-30	SS		120		Strong hydrocarbon odor, staining
-							
-							
-							
--35		33-35	SS	Sand, buff to tan, fine grained, contains gypsum	138	SW	Strong hydrocarbon odor, staining
-							
-							
-							
--40							

Comments:

Geologist Signature

BBC INTERNATIONAL
INCORPORATED

RECORD OF SUBSURFACE EXPLORATION

Project Name: Shell Westgate Project No.
Borehole Location: Hobbs, NM Logged By: Sharon Hall
Drilled By: Eades Drilling Co. Drilling/Rig Methods: Rotary Air
Date/Time Started: 2/9/99 11:06 Date/Time Completion(s): 2/9/99 3:32
Air Monitoring Type: GWL Depth:

Depth (feet)	Sample Number	Sample Interval	Sample Type	Sample Description	PID Readings (ppm)	USCS Symbol	Comments
-45		43-45	SS	Sand, buff to tan, fine grained, contains gypsum	110	SW	Strong hydrocarbon odor, staining
--50		48-50	SS	Sand, buff to tan, fine grained, hard sand at 50'	85	SW	Strong hydrocarbon odor, staining, moist
--55		53-55	SS		145		Strong hydrocarbon odor, staining, moist
--60		58-60	SS	Sand, buff to tan, fine grained, hard at 59.5'	112	SW	Strong hydrocarbon odor, staining, moist
--65	TSB-16	63-65	SS		10		Strong hydrocarbon odor, staining, wet
--70				Boring Terminated at 65 feet, in water			
--75							
--80							

Comments:

Geologist Signature

BBC INTERNATIONAL
INCORPORATED

RECORD OF SUBSURFACE EXPLORATION

Soil Boring TSB-17

Project Name: Shell Westgate
Project No.
Borehole Location: Hobbs, NM
Logged By: Sharon Hall
Drilled By: Eades Drilling Co.
Drilling/Rig Methods: Rotary Air
Date/Time Started: 2/16/99 9:13
Date/Time Completion(s): 2/16/99 11:35
Air Monitoring Type:
GWL Depth:

Depth (feet)	Sample Number	Sample Interval	Sample Type	Sample Description	PID Readings (ppm)	USCS Symbol	Comments
0				Sand, medium grained, tan		SW	
5		3-5	SS		0	SW	No hydrocarbon odor or stain
				Sand, fine grained, brown			
10		8-10	SS		0	SW	No hydrocarbon odor or stain
15	TSB-17	13-15	SS	Sand, coarse, sandstone	0		No hydrocarbon odor Slight streaks of staining
20		18-20	SS		0		No hydrocarbon odor Slight streaks of staining
				Sand, caliche, light tan, contains clay		SW/CL	
25		23-25	SS		0		No hydrocarbon odor or stain
						SW/SS	
30		28-30	SS	Sand, coarse, sandstone	0		No hydrocarbon odor or stain
35		33-35	SS		0	SS	No hydrocarbon odor or stain
		38-40		Sandstone, hard, coarse grained			No sample, too hard
40		40-42	SS		0		No hydrocarbon odor or stain
				Boring Terminated at 42 feet			
45							

Comments:

Geologist Signature

BBC INTERNATIONAL
INCORPORATED

RECORD OF SUBSURFACE EXPLORATION

Soil Boring TSB-18

Project Name: Shell Westgate
Project No.
Borehole Location: Hobbs, NM
Logged By: Sharon Hall
Drilled By: Eades Drilling Co.
Drilling/Rig Methods: Rotary Air
Date/Time Started: 2/25/99 8:40
Date/Time Completion(s): 2/25/99 11:30
Air Monitoring Type:
GWL Depth:

Depth (feet)	Sample Number	Sample Interval	Sample Type	Sample Description	PID Readings (ppm)	USCS Symbol	Comments
0-				Sand, tan to beige, medium grained		SW	
5		3-5	SS		0		No hydrocarbon odor or stain
--10		8-10	SS		9.7		No hydrocarbon odor or stain
--15		13-15	SS	Sand, tan to beige, medium grained, contains clay	4	SW	Slight hydrocarbon odor, no staining
--20		18-20	SS		.3		No hydrocarbon odor, spotty, light staining
--25		23-25		Sandstone, hard		SS	No sample, too hard
--30		28-30	SS	Sand, tan to beige, medium grained	3.2	SW	Slight hydrocarbon odor, no staining
--35	TSB-18	33-35	SS		10.7		No hydrocarbon odor or stain
--40		39-40	SS	Sand, tan to beige, medium grained, moist	1	SW	No hydrocarbon odor or stain
--45	TSB-18	43-45	SS	Boring Terminated at 45 feet	0		No hydrocarbon odor or stain

Comments:

Geologist Signature

BBC INTERNATIONAL
INCORPORATED

RECORD OF SUBSURFACE EXPLORATION

Soil Boring TSB-19

Project Name: Shell Westgate Project No.
Borehole Location: Hobbs, NM Logged By: Sharon Hall
Drilled By: Eades Drilling Co. Drilling/Rig Methods: Rotary Air
Date/Time Started: 2/25/99 1:40 Date/Time Completion(s): 2/25/99 3:28
Air Monitoring Type: GWL Depth:

Depth (feet)	Sample Number	Sample Interval	Sample Type	Sample Description	PID Readings (ppm)	USCS Symbol	Comments
0-				Sand, buff, contains hard caliche		SW	
5		3-5	SS		0		No hydrocarbon odor or stain
--10	TSB-19	8-10	SS	Sand, tan to beige, medium grained, contains clay	0	SW/CL	No hydrocarbon odor or stain
--15		13-15	SS		0		No hydrocarbon odor or stain
--20		18-20	SS	Sand, creme, medium grained, contains clay	0	SW/CL	No hydrocarbon odor or stain
--25		23-25	SS		0		No hydrocarbon odor or stain
--30		28-30	SS	Sand, buff, medium grained	0	SW	No hydrocarbon odor or stain
--35		33-35	SS	Sand, buff, contains hard clay	0	SW/CL	No hydrocarbon odor or stain
--40	TSB-19	38-40	SS	Sand, buff to tan, medium grained Boring Terminated at 40 feet	0	SW	No hydrocarbon odor or stain

Comments:

Geologist Signature

Appendix II

Geologic Cross Sections

Appendix III

Photographs



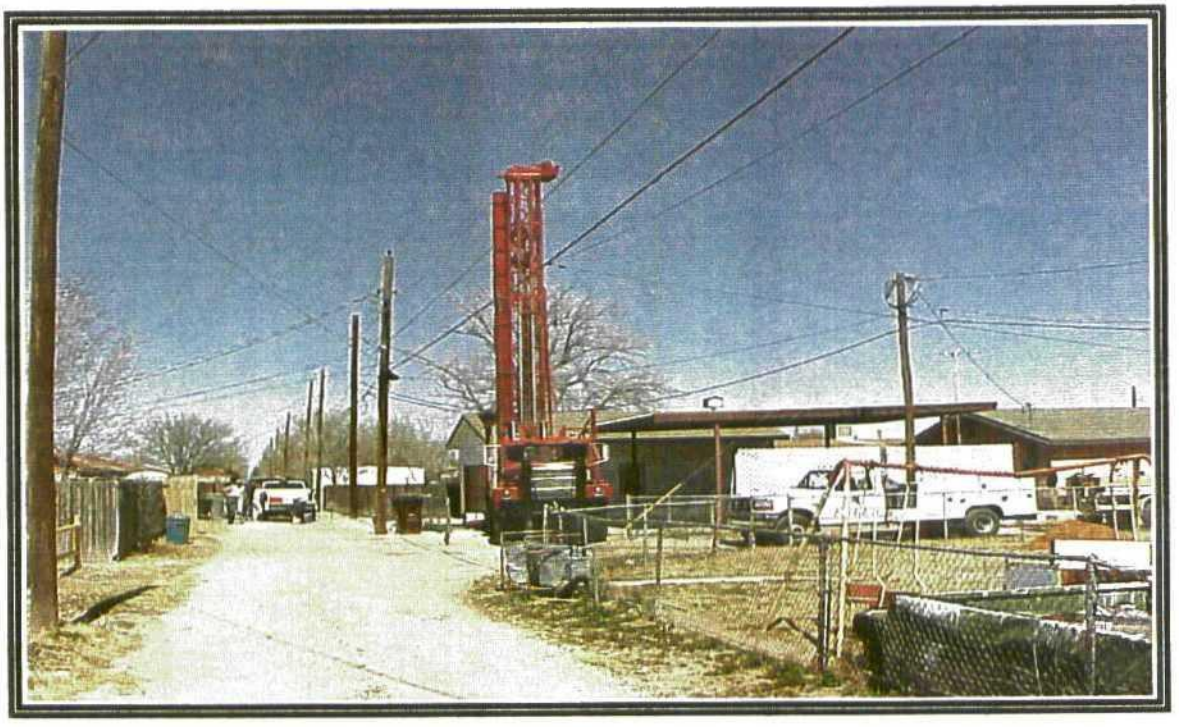
Drilling of GMW-11



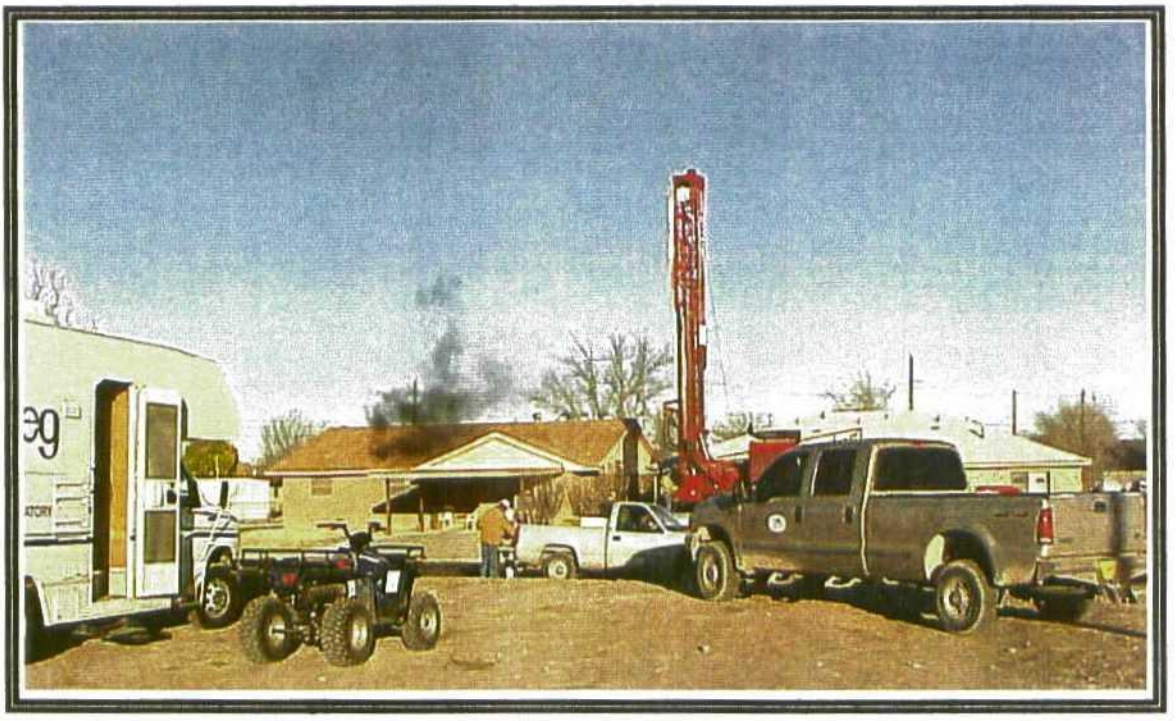
Excavation of Surface Soils



Drilling of TSB-16



Drilling of TMW-5



Soil Vapor Mobile Lab & Drilling of TMW-4



Drilling of TMW-4



Purging/Sampling of TMW-2



Purging/Sampling of TMW-5



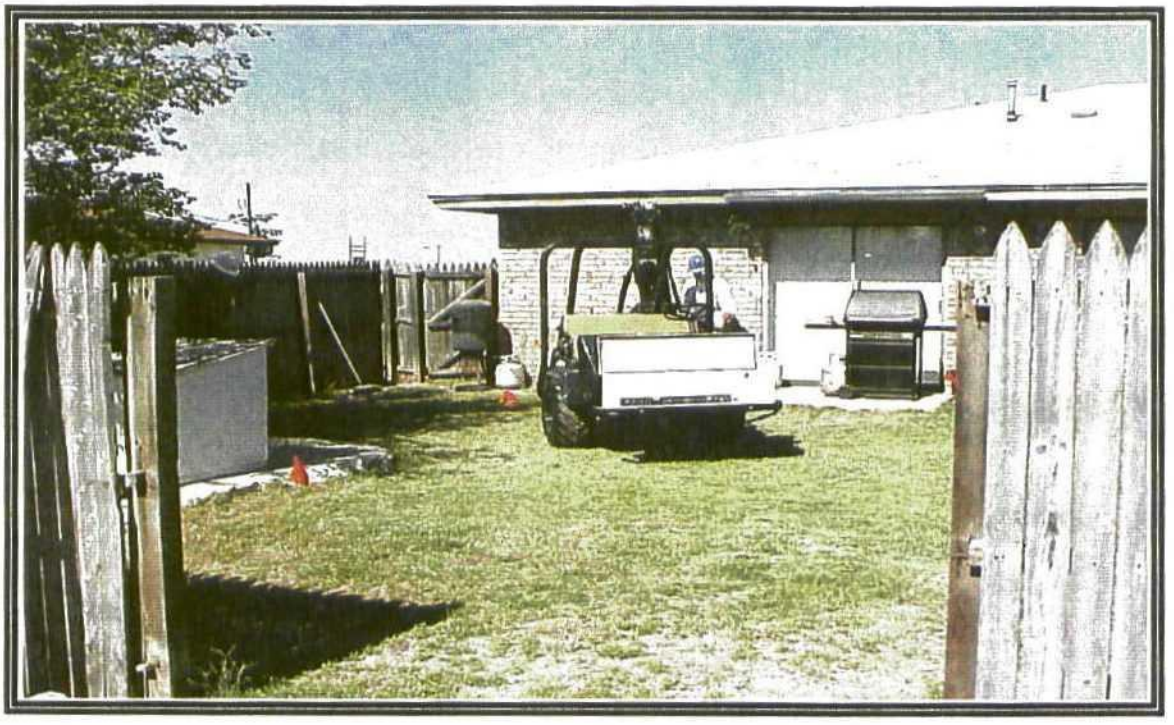
Purging/Sampling of GMW-6



Purging/Sampling of GMW-11



Soil Vapor Sample Point - 1326 Tasker



Soil Vapor Sample Point - 1326 Tasker



Soil Vapor Sample Point - 1326 Tasker



Soil Vapor Sample Point - 1328 Tasker



Soil Vapor Sample Point - 1330 Tasker - Front Yard



Soil Vapor Sample Point - 1330 Tasker Back Yard



Soil Vapor Sample Point - 1330 Tasker - Side of House



Soil Vapor Sample Point - 1328 Tasker - Side of House



Soil Vapor Sample Point - 1341 Cobb - Side Yard



Soil Vapor Sample Point - 1341 Cobb - Back Yard



Soil Sample Points - 1330 Tasker Back Yard



Soil Sample - 1330 Tasker Back Yard

Appendix IV

Soil Laboratory Analytical Results

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02-11-99

Project Name: Shell Westgate
Project Location: Hobbs, NM

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
117624	Field Blank	Water	01/24/99	3:00 p.m.	01/27/99
117625	Trip Blank	Water	01/24/99	3:00 p.m.	01/27/99
117626	GBN-1 (6")	Soil	01/24/99	12:00 p.m.	01/27/99
117627	GBN-2 (6")	Soil	01/24/99	12:20 p.m.	01/27/99
117628	GBN-3 (6")	Soil	01/24/99	12:40 p.m.	01/27/99
117629	GBS-1 (6")	Soil	01/24/99	1:00 p.m.	01/27/99
117630	GBS-2 (6")	Soil	01/24/99	1:20 p.m.	01/27/99
117631	GBS-3 (6")	Soil	01/24/99	1:40 p.m.	01/27/99
117632	BCKG-1	Soil	01/24/99	2:00 p.m.	01/27/99
117633	BCKG-2	Soil	01/24/99	2:20 p.m.	01/27/99
117634	BCKG-3	Soil	01/24/99	2:40 p.m.	01/27/99

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

*Semi-Volatile ERL- due to high hydrocarbons in matrix: 117626, 117627, 117628
*Semi-Volatile 117626, 117627, 117628 acidic surrogates out of control limits due to poor chromatography resulting from this introduction of high boiling point material into the GC from the sample.
*Semi-Volatile CCV surrogate out of control limits.
*Pesticides ERL due to matrix: 117626, 117627, 117628
*PCB ERL due to matrix: 117628

Dr. Blair Leftwich
Director

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/11/99
Page # 2

Project Number:
Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 9901000368/369
Sample Number: 117624

Field Code: Field Blank

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		1/28/99	JG		5550	5
Acrylonitrile		<5	ug/L	S-8260B		1/28/99	JG		5550	5
Benzene		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Carbon tetrachloride		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Chlorobenzene		<1	ug/L	S-8260B		1/28/99	JG		5550	1
1,2-dichloroethane		<1	ug/L	S-8260B		1/28/99	JG		5550	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		1/28/99	JG		5550	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		1/28/99	JG		5550	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		1/28/99	JG		5550	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Chloroform		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Dichlorobenzene		<2	ug/L	S-8260B		1/28/99	JG		5550	2
1,1-dichloroethylene		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Dichloropropenes		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Ethylbenzene		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Bromodichloromethane		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Bromomethane		<5	ug/L	S-8260B		1/28/99	JG		5550	5
Chloromethane		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Dichloromethane		<5	ug/L	S-8260B		1/28/99	JG		5550	5
Trichlorofluoromethane		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Tetrachloroethylene		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Toluene		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Trichloroethylene		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Vinyl chloride		<2	ug/L	S-8260B		1/28/99	JG		5550	2
m,p-xylene		<1	ug/L	S-8260B		1/28/99	JG		5550	1
o-xylene		<1	ug/L	S-8260B		1/28/99	JG		5550	1
1,1-dichloroethane		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Ethylene dibromide		<1	ug/L	S-8260B		1/28/99	JG		5550	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		1/28/99	JG		5550	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Methylene chloride		<5	ug/L	S-8260B		1/28/99	JG		5550	5
Surr. Dibromofluoromethane		109	%	S-8260B		1/28/99	JG		5550	72-130
Surr. Toluene-d8		97	%	S-8260B		1/28/99	JG		5550	77-127
Surr. 4-Bromofluorobenzene		105	%	S-8260B		1/28/99	JG		5550	72-131

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/11/99

Project Number:
Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 9901000368/369
Sample Number: 117625

Field Code: Trip Blank

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		1/28/99	JG		5550	5
Acrylonitrile		<5	ug/L	S-8260B		1/28/99	JG		5550	5
Benzene		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Carbon tetrachloride		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Chlorobenzene		<1	ug/L	S-8260B		1/28/99	JG		5550	1
1,2-dichloroethane		<1	ug/L	S-8260B		1/28/99	JG		5550	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		1/28/99	JG		5550	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		1/28/99	JG		5550	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		1/28/99	JG		5550	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Chloroform		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Dichlorobenzene		<2	ug/L	S-8260B		1/28/99	JG		5550	2
1,1-dichloroethylene		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Dichloropropenes		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Ethylbenzene		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Bromodichloromethane		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Bromomethane		<5	ug/L	S-8260B		1/28/99	JG		5550	5
Chloromethane		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Dichloromethane		<5	ug/L	S-8260B		1/28/99	JG		5550	5
Trichlorofluoromethane		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Tetrachloroethylene		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Toluene		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Trichloroethylene		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Vinyl chloride		<2	ug/L	S-8260B		1/28/99	JG		5550	2
m,p-xylene		<1	ug/L	S-8260B		1/28/99	JG		5550	1
o-xylene		<1	ug/L	S-8260B		1/28/99	JG		5550	1
1,1-dichloroethane		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Ethylene dibromide		<1	ug/L	S-8260B		1/28/99	JG		5550	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		1/28/99	JG		5550	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		1/28/99	JG		5550	1
Methylene chloride		<5	ug/L	S-8260B		1/28/99	JG		5550	5
Surr. Dibromofluoromethane		109	%	S-8260B		1/28/99	JG		5550	72-130
Surr. Toluene-d8		98	%	S-8260B		1/28/99	JG		5550	77-127
Surr. 4-Bromofluorobenzene		107	%	S-8260B		1/28/99	JG		5550	72-131

Analytical Results Report

ff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/11/99

Project Number:
Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 9901000368/369
Sample Number: 117626

Field Code: GBN-1 (6")

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<170	ug/kg	S-8260B		2/3/99	JG		5554	170
Acrylonitrile		<170	ug/kg	S-8260B		2/3/99	JG		5554	170
Benzene		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
Carbon tetrachloride		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
Chlorobenzene		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
1,2-dichloroethane		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
1,1,2,2-tetrachloroethane		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
1,1,1-trichloroethane		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
1,1,2-trichloroethane		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
1,1,2-trichloroethylene		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
hloroform		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
hlorobenzene		<68	ug/kg	S-8260B		2/3/99	JG		5554	68
1,1-dichloroe ylene		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
Dichloropropenes		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
Ethylbenzene		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
Bromodichloromethane		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
Bromomethane		<170	ug/kg	S-8260B		2/3/99	JG		5554	170
Chloromethane		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
Dichlorodifluoromethane		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
Dichloromethane		<170	ug/kg	S-8260B		2/3/99	JG		5554	170
Trichlorofluoromethane		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
Tetrachloroethylene		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
Toluene		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
Trichloroethylene		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
Vinyl chloride		<68	ug/kg	S-8260B		2/3/99	JG		5554	68
m,p-xylene		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
o-xylene		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
1,1-dichloroethane		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
Ethylene dibromide		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
cis-1,2-dichlorethylene		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
trans-1,2-dichloroethylene		<34	ug/kg	S-8260B		2/3/99	JG		5554	34
Methylene chloride		<170	ug/kg	S-8260B		2/3/99	JG		5554	170
Surr. Dibromofluoromethane		99	%	S-8260B		2/3/99	JG		5554	72-130
Surr. Toluene-d8		98	%	S-8260B		2/3/99	JG		5554	77-127
Surr. 4-Bromofluorobenzene		101	%	S-8260B		2/3/99	JG		5554	72-131

Field Code: GBN-1 (6")

Sample Number: 117626

[redacted]ameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	*ERL	<50	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	50
Hexachlorobenzene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Pentachlorobenzene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
1,2,4,5-tetrachlorobenzene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Hexachloroethane	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
2,4-dichlorphenol	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
2,4,5-trichlorophenol	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
2,4,6-trichlorophenol	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
bis (2-chloroethl) ether	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
bis (2-chloroisopropyl) ether	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
bis (chloromethyl) ether	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
3,3-dichlorobenzidine	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
2,4-dinitrotoluene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Diphenylhydrazine	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
Hexachlorobutadiene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Hexachlorocyclopentadiene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Isophorone	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
Nitrobenzene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
2,4-dinitro-o-cresol	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
2,4-dinitrophenols	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
n-nitrosodiethylamine	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
N-nitrosodimethylamine	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
N-nitrosodibutylamine	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
[redacted]trosodiphenylamine	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
[redacted]itrosopyrrolidine	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Pentachlorophenol	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
Dibutyl phthalate	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
di-2-ethylhexyl phthalate	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Diethyl phthalate	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Dimethyl phthalate	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Anthracene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
3,4-Benzofluoranthene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Benzo(k)fluoranthene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Fluoranthene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Fluorene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Phenanthrene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Pyrene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Naphthalene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
1-methylnaphthalene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
2-methylnaphthalene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Benzo-a-pyrene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Phenol	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Surr. 2-Fluorophenol	*	35	%	8270C	1/27/99	1/28/99	DG	5425	5535	44-108
Surr. Phenol-d6	*	39	%	8270C	1/27/99	1/28/99	DG	5425	5535	53-112
Surr. Nitrobenzene-d5		67	%	8270C	1/27/99	1/28/99	DG	5425	5535	21-106
Surr. 2-Fluorobiphenyl		89	%	8270C	1/27/99	1/28/99	DG	5425	5535	35-113
Surr. 2,4,6-Tribromophenol	*	56	%	8270C	1/27/99	1/28/99	DG	5425	5535	66-124
Surr. Terphenyl-d14		86	%	8270C	1/27/99	1/28/99	DG	5425	5535	59-119

[redacted]ic surrogates out of control limits due to poor chromatography resulting from the introduction of high boiling point material into the GC from the sample.

*ERL-elevated reporting limits due to high hydrocarbons in matrix

[redacted]ff P. Brunson.
[redacted]B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Order ID Number: 9901000368/369
Sample Number: 117626

Field Code: GBN-1 (6")

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin	*ERL	<2.0	mg/kg	8081	2/4/99	2/5/99	SH			2.0
Chlordane	*ERL	<10	mg/kg	8081	2/4/99	2/5/99	SH			10.0
DDT	*ERL	<3.0	mg/kg	8081	2/4/99	2/5/99	SH			3.0
Dieldrin	*ERL	<2.0	mg/kg	8081	2/4/99	2/5/99	SH			2.0
Endosulfan	*ERL	<3.0	mg/kg	8081	2/4/99	2/5/99	SH			3.0
Endrin	*ERL	<5.0	mg/kg	8081	2/4/99	2/5/99	SH			5.0
Heptachlor	*ERL	<3.0	mg/kg	8081	2/4/99	2/5/99	SH			3.0
PCB's		<0.100	mg/kg	8082	1/28/99	1/28/99	CS	5438	5548	0.1
Arsenic		<0.50	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Barium		206	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Cadmium		1.5	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Chromium		9.2	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Lead		17	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Total Mercury		0.12	mg/kg	7471A	1/28/99	1/29/99	BP	5441	5551	0.10
Selenium		<0.50	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Silver		25	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
[redacted]ranium		<5.0	mg/kg	6010B	1/27/99	2/8/99	RR	5474	5590	5.0
[redacted]pper		11	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Iron		6,850	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	1.0
Manganese		169	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Zinc		76	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Aluminum		7,270	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	10
Boron		25	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	10
Cobalt		6.7	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Molybdenum		2.5	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Nickel		21	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Cyanide		<0.20	mg/kg	SM 4500CN C,E	1/28/99	1/28/99	SA	5430	5540	0.20
Fluoride		0.56	mg/kg	300.0	1/28/99	1/28/99	JS	5431	5541	0.1
Nitrate		12	mg/kg	300.0	1/28/99	1/28/99	JS	5433	5543	0.1
Chloride		49	mg/kg	300.0	1/28/99	1/28/99	JS	5432	5542	0.5
Sulfate		140	mg/kg	300.0	1/29/99	1/29/99	JS	5437	5547	0.5
TDS		1300	mg/kg	160.1	1/28/99	1/28/99	MD	5428	5538	10
pH		7.6	s.u.	150.1	1/27/99	1/27/99	SA	5429	5539	---
TRPHC		8570	mg/kg	418.1	1/27/99	1/27/99	MF	5392	5503	10
Total Phenol		1.66	mg/kg	SM 5530 A,D	1/29/99	1/29/99	SA	5443	5553	1.00
Total Radium		2.91	pCi/gm	901.1M	1/30/99	1/30/99	MD			0.66

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/11/99
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Project Number:
Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 9901000368/369
Sample Number: 117627

Field Code: GBN-2 (6")

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<125	ug/kg	S-8260B		2/3/99	JG		5554	125
Acrylonitrile		<125	ug/kg	S-8260B		2/3/99	JG		5554	125
Benzene		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Carbon tetrachloride		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Chlorobenzene		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
1,2-dichloroethane		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
1,1,2,2-tetrachloroethane		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
1,1,1-trichloroethane		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
1,1,2-trichloroethane		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
1,1,2-trichloroethylene		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Chloroform		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Dichlorobenzene		<50	ug/kg	S-8260B		2/3/99	JG		5554	50
1,1-dichloroethylene		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Dichloropropenes		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Ethylbenzene		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Bromodichloromethane		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Bromomethane		<125	ug/kg	S-8260B		2/3/99	JG		5554	125
Chloromethane		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Dichlorodifluoromethane		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Dichloromethane		<125	ug/kg	S-8260B		2/3/99	JG		5554	125
Trichlorofluoromethane		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Tetrachloroethylene		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Toluene		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Trichloroethylene		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Vinyl chloride		<50	ug/kg	S-8260B		2/3/99	JG		5554	50
m,p-xylene		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
o-xylene		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
1,1-dichloroethane		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Ethylene dibromide		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
cis-1,2-dichlorethylene		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
trans-1,2-dichloroethylene		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Methylene chloride		<125	ug/kg	S-8260B		2/3/99	JG		5554	125
Surr. Dibromofluoromethane		100	%	S-8260B		2/3/99	JG		5554	72-130
Surr. Toluene-d8		99	%	S-8260B		2/3/99	JG		5554	77-127
Surr. 4-Bromofluorobenzene		100	%	S-8260B		2/3/99	JG		5554	72-131

Field Code: GBN-2 (6")

Sample Number: 117627

[redacted]meter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	*ERL	<50	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	50
Hexachlorobenzene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Pentachlorobenzene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
1,2,4,5-tetrachlorobenzene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Hexachloroethane	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
2,4-dichlorphenol	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
2,4,5-trichlorophenol	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
2,4,6-trichlorophenol	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
bis (2-chloroethl) ether	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
bis (2-chloroisopropyl) ether	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
bis (chloromethyl) ether	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
3,3-dichlorobenzidine	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
2,4-dinitrotoluene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Diphenylhydrazine	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
Hexachlorobutadiene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Hexachlorocyclopentadiene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Isophorone	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
Nitrobenzene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
2,4-dinitro-o-cresol	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
2,4-dinitrophenols	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
n-nitrosodiethylamine	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
N-nitrosodimethylamine	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
N-nitrosodibutylamine	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
[redacted]trosodiphenylamine	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
[redacted]itrosopyrrolidine	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Pentachlorophenol	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
Dibutyl phthalate	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
di-2-ethylhexyl phthalate	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Diethyl phthalate	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Dimethyl phthalate	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Anthracene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
3,4-benzofluoranthene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Benzo(k)fluoranthene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Fluoranthene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Fluorene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Phenanthrene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Pyrene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Naphthalene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
1-methylnaphthalene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
2-methylnaphthalene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Benzo-a-pyrene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Phenol	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Surr. 2-Fluorophenol	*	21	%	8270C	1/27/99	1/28/99	DG	5425	5535	44-108
Surr. Phenol-d6	*	15	%	8270C	1/27/99	1/28/99	DG	5425	5535	53-112
Surr. Nitroobenzene-d5		52	%	8270C	1/27/99	1/28/99	DG	5425	5535	21-106
Surr. 2-Fluorobiphenyl		80	%	8270C	1/27/99	1/28/99	DG	5425	5535	35-113
Surr. 2,4,6-Tribromophenol	*	23	%	8270C	1/27/99	1/28/99	DG	5425	5535	66-124
Surr. Terphenyl-d14		64	%	8270C	1/27/99	1/28/99	DG	5425	5535	59-119

[redacted]dic surrogates out of control limits due to poor chromatography resulting from the introduction of high boiling point material into the GC from the sample.

*ERL-elevated reporting limits due to high hydrocarbons in matrix

Date: 02/11/99
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[redacted].B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Order ID Number: 9901000368/369
Field Code: GBN-2 (6") Sample Number: 117627

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin	*ERL	<2.0	mg/kg	8081	2/4/99	2/5/99	SH			2.0
Chlordane	*ERL	<10	mg/kg	8081	2/4/99	2/5/99	SH			10.0
DDT	*ERL	<3.0	mg/kg	8081	2/4/99	2/5/99	SH			3.0
Dieldrin	*ERL	<2.0	mg/kg	8081	2/4/99	2/5/99	SH			2.0
Endosulfan	*ERL	<3.0	mg/kg	8081	2/4/99	2/5/99	SH			3.0
Endrin	*ERL	<5.0	mg/kg	8081	2/4/99	2/5/99	SH			5.0
Heptachlor	*ERL	<3.0	mg/kg	8081	2/4/99	2/5/99	SH			3.0
PCB's		<0.100	mg/kg	8082	1/28/99	1/28/99	CS	5438	5548	0.1
Arsenic		<0.50	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Barium		146	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Cadmium		0.80	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Chromium		10	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Lead		7.5	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Total Mercury		<0.10	mg/kg	7471A	1/28/99	1/29/99	BP	5441	5551	0.10
Selenium		<0.50	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
[redacted]ilver		29	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
[redacted]anium		<5.0	mg/kg	6010B	1/27/99	2/8/99	RR	5474	5590	5.0
Copper		8.4	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Iron		8,160	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	1.0
Manganese		184	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Zinc		35	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Aluminum		9,410	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	10
Boron		21	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	10
Cobalt		6.9	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Molybdenum		2.5	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Nickel		22	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Cyanide		<0.20	mg/kg	SM 4500CN C,E	1/28/99	1/28/99	SA	5430	5540	0.20
Fluoride		0.70	mg/kg	300.0	1/28/99	1/28/99	JS	5431	5541	0.1
Nitrate		29	mg/kg	300.0	1/28/99	1/28/99	JS	5433	5543	0.1
Chloride		34	mg/kg	300.0	1/28/99	1/28/99	JS	5432	5542	0.5
Sulfate		200	mg/kg	300.0	1/29/99	1/29/99	JS	5437	5547	0.5
TDS		1300	mg/kg	160.1	1/28/99	1/28/99	MD	5428	5538	10
pH		7.8	s.u.	150.1	1/27/99	1/27/99	SA	5429	5539	---
TRPHC		2060	mg/kg	418.1	1/27/99	1/27/99	MF	5392	5503	10
Total Phenol		5.59	mg/kg	SM 5530 A,D	2/10/99	2/10/99	SA	5475	5591	1.0
Total Radium		2.52	pCi/gm	901.1M	1/30/99	1/30/99	MD			0.66

Analytical Results Report

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1324 W. Marland
Hobbs, NM 88240

Date: 02/11/99
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Project Number:
Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 9901000368/369
Sample Number: 117628

Field Code: GBN-3 (6")

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<130	ug/kg	S-8260B		2/3/99	JG		5554	130
Acrylonitrile		<130	ug/kg	S-8260B		2/3/99	JG		5554	130
Benzene		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
Carbon tetrachloride		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
Chlorobenzene		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
1,2-dichloroethane		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
1,1,2,2-tetrachloroethane		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
1,1,1-trichloroethane		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
1,1,2-trichloroethane		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
1,1,2-trichloroethylene		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
[redacted]loroform		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
[redacted]hlorobenzene		<52	ug/kg	S-8260B		2/3/99	JG		5554	52
1,1-dichloroethylene		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
Dichloropropenes		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
Ethylbenzene		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
Bromodichloromethane		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
Bromomethane		<130	ug/kg	S-8260B		2/3/99	JG		5554	130
Chloromethane		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
Dichlorodifluoromethane		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
Dichloromethane		<130	ug/kg	S-8260B		2/3/99	JG		5554	130
Trichlorofluoromethane		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
Tetrachloroethylene		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
Toluene		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
Trichloroethylene		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
Vinyl chloride		<52	ug/kg	S-8260B		2/3/99	JG		5554	26
m,p-xylene		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
o-xylene		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
1,1-dichloroethane		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
Ethylene dibromide		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
cis-1,2-dichlorethylene		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
trans-1,2-dichloroethylene		<26	ug/kg	S-8260B		2/3/99	JG		5554	26
Methylene chloride		<130	ug/kg	S-8260B		2/3/99	JG		5554	130
Surr. Dibromofluoromethane		99	%	S-8260B		2/3/99	JG		5554	72-130
Surr. Toluene-d8		100	%	S-8260B		2/3/99	JG		5554	77-127
Surr. 4-Bromofluorobenzene		96	%	S-8260B		2/3/99	JG		5554	72-131

Field Code: GBN-3 (6") Sample Number: 117628

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	*ERL	<50	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	50
Hexachlorobenzene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Pentachlorobenzene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
1,2,4,5-tetrachlorobenzene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Hexachloroethane	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
2,4-dichlorphenol	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
2,4,5-trichlorophenol	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
2,4,6-trichlorophenol	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
bis (2-chloroethl) ether	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
bis (2-chloroisopropyl) ether	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
bis (chloromethyl) ether	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
3,3-dichlorobenzidine	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
2,4-dinitrotoluene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Diphenylhydrazine	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
Hexachlorobutadiene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Hexachlorocyclopentadiene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Isophorone	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
Nitrobenzene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
2,4-dinitro-o-cresol	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
2,4-dinitrophenols	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
n-nitrosodiethylamine	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
N-nitrosodimethylamine	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
N-nitrosodibutylamine	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
[redacted]-nitrosodiphenylamine	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
[redacted]-nitrosopyrrolidine	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Pentachlorophenol	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
Dibutyl phthalate	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
di-2-ethylhexyl phthalate	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Diethyl phthalate	*ERL	<25	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	25
Dimethyl phthalate	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Anthracene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
3,4-benzofluoranthene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Benzo(k)fluoranthene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Fluoranthene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Fluorene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Phenanthrene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Pyrene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Naphthalene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
1-methylnaphthalene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
2-methylnaphthalene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Benzo-a-pyrene	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Phenol	*ERL	<5	mg/kg	8270C	1/27/99	1/28/99	DG	5425	5535	5
Surr. 2-Fluorophenol	*	32	%	8270C	1/27/99	1/28/99	DG	5425	5535	44-108
Surr. Phenol-d6	*	41	%	8270C	1/27/99	1/28/99	DG	5425	5535	53-112
Surr. Nitroobenzene-d5		55	%	8270C	1/27/99	1/28/99	DG	5425	5535	21-106
Surr. 2-Fluorobiphenyl		77	%	8270C	1/27/99	1/28/99	DG	5425	5535	35-113
Surr. 2,4,6-Tribromophenol		67	%	8270C	1/27/99	1/28/99	DG	5425	5535	66-124
Surr. Terphenyl-d14		89	%	8270C	1/27/99	1/28/99	DG	5425	5535	59-119

*Acidic surrogates out of control limits due to poor chromatography resulting from the introduction of high boiling point material into the GC from the sample.

*ERL-elevated reporting limits due to high hydrocarbons in matrix

Project Name: Shell Westgate
Project Location: Hobbs, NM
Order ID Number: 9901000368/369
Sample Number: 117628

Field Code: GBN-3 (6")

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin	*ERL	<2.0	mg/kg	8081	2/4/99	2/5/99	SH			2.0
Chlordane	*ERL	<10	mg/kg	8081	2/4/99	2/5/99	SH			10.0
DDT	*ERL	<3.0	mg/kg	8081	2/4/99	2/5/99	SH			3.0
Dieldrin	*ERL	<2.0	mg/kg	8081	2/4/99	2/5/99	SH			2.0
Endosulfan	*ERL	<3.0	mg/kg	8081	2/4/99	2/5/99	SH			3.0
Endrin	*ERL	<5.0	mg/kg	8081	2/4/99	2/5/99	SH			5.0
Heptachlor	*ERL	<3.0	mg/kg	8081	2/4/99	2/5/99	SH			3.0
PCB's	*ERL	<10	mg/kg	8082	2/1/99	2/1/99	CS	5439	5549	1.0
Arsenic		<0.50	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Barium		108	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Cadmium		0.92	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Chromium		7.5	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Lead		10	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Total Mercury		0.13	mg/kg	7471A	1/28/99	1/29/99	BP	5441	5551	0.10
Selenium		<0.50	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Silver		30	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Uranium		<5.0	mg/kg	6010B	1/27/99	2/8/99	RR	5474	5590	5.0
Copper		21	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Iron		7,210	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	1.0
Manganese		56	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Zinc		35	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Aluminum		4,350	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	10
Boron		17	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	10
Cobalt		4.4	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Molybdenum		2.7	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Nickel		34	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Cyanide		<0.20	mg/kg	SM 4500CN C,E	1/28/99	1/28/99	SA	5430	5540	0.20
Fluoride		1.5	mg/kg	300.0	1/29/99	1/29/99	JS	5434	5544	0.1
Nitrate		1.5	mg/kg	300.0	1/29/99	1/29/99	JS	5436	5546	0.1
Chloride		52	mg/kg	300.0	1/29/99	1/29/99	JS	5435	5545	0.5
Sulfate		3,000	mg/kg	300.0	1/29/99	1/29/99	JS	5437	5547	0.5
TDS		6,200	mg/kg	160.1	1/28/99	1/28/99	MD	5428	5538	10
pH		5.6	s.u.	150.1	1/27/99	1/27/99	SA	5429	5539	---
TRPHC		52,000	mg/kg	418.1	1/27/99	1/27/99	MF	5392	5503	10
Total Phenol		3.70	mg/kg	SM 5530 A,D	1/28/99	1/28/99	SA	5442	5552	1.0
Total Radium		1.88	pCi/gm	901.1M	1/30/99	1/30/99	MD			0.66

*ERL-elevated reporting limits due to high hydrocarbons in matrix

Analytical Results Report

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1324 W. Marland
Hobbs, NM 88240

Date: 02/11/99
Page # 13

Project Number:
Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 9901000368/369
Sample Number: 117629

Field Code: GBS-1 (6")

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<135	ug/kg	S-8260B		2/3/99	JG		5554	135
Acrylonitrile		<135	ug/kg	S-8260B		2/3/99	JG		5554	135
Benzene		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Carbon tetrachloride		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Chlorobenzene		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
1,2-dichloroethane		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
1,1,2,2-tetrachloroethane		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
1,1,1-trichloroethane		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
1,1,2-trichloroethane		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
1,1,2-trichloroethylene		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
[redacted]hloroform		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
[redacted]hlorobenzene		<54	ug/kg	S-8260B		2/3/99	JG		5554	54
1,1-dichloroethylene		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Dichloropropenes		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Ethylbenzene		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Bromodichloromethane		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Bromomethane		<135	ug/kg	S-8260B		2/3/99	JG		5554	135
Chloromethane		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Dichlorodifluoromethane		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Dichloromethane		<135	ug/kg	S-8260B		2/3/99	JG		5554	135
Trichlorofluoromethane		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Tetrachloroethylene		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Toluene		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Trichloroethylene		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Vinyl chloride		<54	ug/kg	S-8260B		2/3/99	JG		5554	54
m,p-xylene		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
o-xylene		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
1,1-dichloroethane		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Ethylene dibromide		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
cis-1,2-dichlorethylene		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
trans-1,2-dichloroethylene		<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Methylene chloride		<135	ug/kg	S-8260B		2/3/99	JG		5554	135
Surr. Dibromofluoromethane		102	%	S-8260B		2/3/99	JG		5554	72-130
Surr. Toluene-d8		100	%	S-8260B		2/3/99	JG		5554	77-127
Surr. 4-Bromofluorobenzene		99	%	S-8260B		2/3/99	JG		5554	72-131

Field Code: GBS-1 (6")

Date: 02/11/99

Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 9901000368/369
Sample Number: 117629

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Arsenic		<0.50	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Barium		152	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Cadmium		0.81	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Chromium		8.8	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Lead		8.6	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Total Mercury		<0.10	mg/kg	7471A	1/28/99	1/29/99	BP	5441	5551	0.10
Selenium		<0.50	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Silver		25	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Uranium		<5.0	mg/kg	6010B	1/27/99	2/8/99	RR	5474	5590	5.0
Copper		8.0	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Iron		6,380	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	1.0
Manganese		164	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Zinc		28	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Aluminum		7,130	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	10
Boron		17	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	10
Cobalt		6.2	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Molybdenum		2.5	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Nickel		31	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Chloride		11	mg/kg	300.0	1/28/99	1/28/99	JS	5432	5542	0.5
TRPHC		11,000	mg/kg	418.1	1/22/99	1/27/99	MF	5392	5503	10

Analytical Results Report

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Date: 02/11/99
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Project Number:
Project Nam Shell Westgate
Project Loca Hobbs, NM

Order ID Number: 9901000368/369
Sample Number: 117630

Field Code: GBS-2 (6")

Parameter Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein	<135	ug/kg	S-8260B		2/3/99	JG		5554	135
Acrylonitrile	<135	ug/kg	S-8260B		2/3/99	JG		5554	135
Benzene	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Carbon tetrachloride	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Chlorobenzene	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
1,2-dichloroethane	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
1,1,2,2-tetrachloroethane	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
1,1,1-trichloroethane	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
1,1,2-trichloroethane	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
1,1,2-trichloroethylene	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Chloroform	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Dichlorobenzene	<54	ug/kg	S-8260B		2/3/99	JG		5554	54
1,1-dichloroethylene	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Dichloropropenes	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Ethylbenzene	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Bromodichloromethane	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Bromomethane	<135	ug/kg	S-8260B		2/3/99	JG		5554	135
Chloromethane	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Dichlorodifluoromethane	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Dichloromethane	<135	ug/kg	S-8260B		2/3/99	JG		5554	135
Trichlorofluoromethane	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Tetrachloroethylene	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Toluene	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Trichloroethylene	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Vinyl chloride	<54	ug/kg	S-8260B		2/3/99	JG		5554	54
m,p-xylene	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
o-xylene	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
1,1-dichloroethane	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Ethylene dibromide	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
cis-1,2-dichlorethylene	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
trans-1,2-dichloroethylene	<27	ug/kg	S-8260B		2/3/99	JG		5554	27
Methylene chloride	<135	ug/kg	S-8260B		2/3/99	JG		5554	135
Surr. Dibromofluoromethane	106	%	S-8260B		2/3/99	JG		5554	72-130
Surr. Toluene-d8	99	%	S-8260B		2/3/99	JG		5554	77-127
Surr. 4-Bromofluorobenzene	101	%	S-8260B		2/3/99	JG		5554	72-131

Field Code: GBS-2 (6")

Date: 02/11/99

Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 9901000368/369
Sample Number: 117630

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Arsenic		<0.50	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Barium		143	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Cadmium		0.83	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Chromium		8.7	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Lead		8.5	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Total Mercury		<0.10	mg/kg	7471A	1/28/99	1/29/99	BP	5441	5551	0.10
Selenium		<0.50	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Silver		25	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Uranium		<5.0	mg/kg	6010B	1/27/99	2/8/99	RR	5474	5598	5.0
Copper		8.2	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Iron		6,000	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	1.0
Manganese		133	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Zinc		28	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Aluminum		6,890	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	10
Boron		15	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	10
Cobalt		6.4	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Molybdenum		2.6	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Nickel		30	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Chloride		87	mg/kg	300.0	1/29/99	1/29/99	JS	5435	5545	0.5
TRPHC		25,800	mg/kg	418.1	1/27/99	1/27/99	MF	5392	5503	10

Analytical Results Report

Cliff P. Brunson.
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1324 W. Marland
Hobbs, NM 88240

Date: 02/11/99
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Project Number:
Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 9901000368/369
Sample Number: 117631

Field Code: GBS-3 (6")

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<125	ug/kg	S-8260B		2/3/99	JG		5554	125
Acrylonitrile		<125	ug/kg	S-8260B		2/3/99	JG		5554	125
Benzene		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Carbon tetrachloride		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Chlorobenzene		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
1,2-dichloroethane		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
1,1,2,2-tetrachloroethane		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
1,1,1-trichloroethane		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
1,1,2-trichloroethane		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
1,1,2-trichloroethylene		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Chloroform		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Dichlorobenzene		<50	ug/kg	S-8260B		2/3/99	JG		5554	50
1,1-dichloroethylene		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Dichloropropenes		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Ethylbenzene		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Bromodichloromethane		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Bromomethane		<125	ug/kg	S-8260B		2/3/99	JG		5554	125
Chloromethane		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Dichlorodifluoromethane		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Dichloromethane		<125	ug/kg	S-8260B		2/3/99	JG		5554	125
Trichlorofluoromethane		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Tetrachloroethylene		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Toluene		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Trichloroethylene		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Vinyl chloride		<50	ug/kg	S-8260B		2/3/99	JG		5554	50
m,p-xylene		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
o-xylene		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
1,1-dichloroethane		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Ethylene dibromide		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
cis-1,2-dichlorethylene		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
trans-1,2-dichloroethylene		<25	ug/kg	S-8260B		2/3/99	JG		5554	25
Methylene chloride		<125	ug/kg	S-8260B		2/3/99	JG		5554	125
Surr. Dibromofluoromethane		99	%	S-8260B		2/3/99	JG		5554	72-130
Surr. Toluene-d8		100	%	S-8260B		2/3/99	JG		5554	77-127
Surr. 4-Bromofluorobenzene		98	%	S-8260B		2/3/99	JG		5554	72-131

Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 117631
Field Code: GBS-3 (6") Sample Number: 9901000368/369

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Arsenic		<0.50	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Barium		144	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Cadmium		1.2	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Chromium		14	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Lead		12	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Total Mercury		<0.10	mg/kg	7471A	1/28/99	1/29/99	BP	5441	5551	0.10
Selenium		<0.50	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Silver		30	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Uranium		<5.0	mg/kg	6010B	1/27/99	2/8/99	RR	5474	5590	5.0
Copper		11	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Iron		9,370	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	1.0
Manganese		232	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Zinc		42	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Aluminum		11,100	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	10
Boron		26	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	10
Cobalt		9.7	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Molybdenum		3.8	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Nickel		38	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Chloride		12	mg/kg	300.0	1/29/99	1/29/99	JS	5435	5545	0.5
TRPHC		4360	mg/kg	418.1	1/27/99	1/27/99	MF	5392	5503	10

Analytical Results Report

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Hobbs, NM 88240

Date: 02/11/99
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Project Number:
Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 9901000368/369
Sample Number: 117632

Field Code: BCKG-1

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Arsenic		<0.50	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Barium		106	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Cadmium		0.77	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Chromium		8.8	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Lead		5.1	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Total Mercury		0.12	mg/kg	7471A	1/28/99	1/29/99	BP	5441	5551	0.10
Selenium		<0.50	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Silver		24	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Uranium		<5.0	mg/kg	6010B	1/27/99	2/8/99	RR	5474	5590	5.0
Copper		8.3	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Iron		6460	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	1.0
Manganese		147	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Zinc		23	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Aluminum		7660	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	10
Boron		14	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	10
Cobalt		6.9	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Molybdenum		2.4	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Nickel		32	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50

Analytical Results Report

Cliff P. Brunson.
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1324 W. Marland
Hobbs, NM 88240

Date: 02/11/99

Project Number:
Project Name:
Project Location:

Order ID Number: 9901000368/369
Sample Number: 117633

Field Code: BCKG-2

Parameter	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Arsenic	<0.50	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Barium	218	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Cadmium	0.92	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Chromium	13	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Lead	14	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Total Mercury	3.9	mg/kg	7471A	1/28/99	1/29/99	BP	5441	5551	0.10
Selenium	<0.50	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Silver	24	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Uranium	<5.0	mg/kg	6010B	1/27/99	2/8/99	RR	5474	5590	5.0
Copper	11	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Iron	6,140	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	1.0
Manganese	130	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Zinc	47	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Aluminum	6,630	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	10
Boron	15	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	10
Cobalt	6.9	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Molybdenum	2.5	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Nickel	33	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50

Analytical Results Report

Cliff P. Brunson.
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Hobbs, NM 88240

Date: 02/11/99
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Project Number:
Project Name: Shell Westgate
Project Locatio Hobbs, NM

Order ID Number: 9901000368/369
Sample Number: 117634

Field Code: BCKG-3

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Arsenic		<0.50	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Barium		187	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Cadmium		0.88	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Chromium		9.3	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Lead		6.8	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Total Mercury		0.14	mg/kg	7471A	1/28/99	1/29/99	BP	5441	5551	0.10
Selenium		<0.50	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Silver		25	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Uranium		<5.0	mg/kg	6010B	1/27/99	2/8/99	RR	5474	5590	5.0
Copper		8.4	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Iron		7,000	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	1.0
Manganese		169	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Zinc		27	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Aluminum		8,050	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	10
Boron		17	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5582	10
Cobalt		7.3	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	1.0
Molybdenum		2.6	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50
Nickel		26	mg/kg	6010B	1/27/99	2/8/99	RR	5468	5581	0.50

Quality Control Report
Blanks

Cliff P. Brunson.
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1324 W. Marland
Hobbs, NM 88240

Date: 02/11/99

Project Number:
Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 9901000368/369

Parameter	Flag	Result	Units	Limit	Analyzed	Prep Batch #	Run Batch #
Acrolein		<125	ug/kg	125	2/3/99		5554
Acrylonitrile		<125	ug/kg	125	2/3/99		5554
Benzene		<25	ug/kg	25	2/3/99		5554
Carbon tetrachloride		<25	ug/kg	25	2/3/99		5554
Chlorobenzene		<25	ug/kg	25	2/3/99		5554
1,2-dichloroethane		<25	ug/kg	25	2/3/99		5554
1,1,2,2-tetrachloroethane		<25	ug/kg	25	2/3/99		5554
1,1,1-trichloroethane		<25	ug/kg	25	2/3/99		5554
1,1,2-trichloroethane		<25	ug/kg	25	2/3/99		5554
1,1,2-trichloroethylene		<25	ug/kg	25	2/3/99		5554
[illegible]loroform		<25	ug/kg	25	2/3/99		5554
[illegible]hlorobenzene		<50	ug/kg	50	2/3/99		5554
1,1-dichloroethylene		<25	ug/kg	25	2/3/99		5554
Dichloropropenes		<25	ug/kg	25	2/3/99		5554
Ethylbenzene		<25	ug/kg	25	2/3/99		5554
Bromodichloromethane		<25	ug/kg	25	2/3/99		5554
Bromomethane		<125	ug/kg	125	2/3/99		5554
Chloromethane		<25	ug/kg	25	2/3/99		5554
Dichlorodifluoromethane		<25	ug/kg	25	2/3/99		5554
Dichloromethane		<125	ug/kg	125	2/3/99		5554
Trichlorofluoromethane		<25	ug/kg	25	2/3/99		5554
Tetrachloroethylene		<25	ug/kg	25	2/3/99		5554
Toluene		<25	ug/kg	25	2/3/99		5554
Trichloroethylene		<25	ug/kg	25	2/3/99		5554
Vinyl chloride		<50	ug/kg	50	2/3/99		5554
m,p-xylene		<25	ug/kg	25	2/3/99		5554
o-xylene		<25	ug/kg	25	2/3/99		5554
1,1-dichloroethane		<25	ug/kg	25	2/3/99		5554
Ethylene dibromide		<25	ug/kg	25	2/3/99		5554
cis-1,2-dichlorethylene		<25	ug/kg	25	2/3/99		5554
trans-1,2-dichloroethylene		<25	ug/kg	25	2/3/99		5554
Methylene chloride		<125	ug/kg	125	2/3/99		5554
Surr. Dibromofluoromethane		101	%	72-130	2/3/99		5554
Surr. Toluene-d8		100	%	77-127	2/3/99		5554
Surr. 4-Bromofluorobenzene		100	%	72-131	2/3/99		5554

Project Number:
Order ID Number: 9901000368/369
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	1/28/99		5550
Acrylonitrile		<5	ug/L	5	1/28/99		5550
Benzene		<1	ug/L	1	1/28/99		5550
Carbon tetrachloride		<1	ug/L	1	1/28/99		5550
Chlorobenzene		<1	ug/L	1	1/28/99		5550
1,2-dichloroethane		<1	ug/L	1	1/28/99		5550
1,1,2,2-tetrachloroethane		<1	ug/L	1	1/28/99		5550
1,1,1-trichloroethane		<1	ug/L	1	1/28/99		5550
1,1,2-trichloroethane		<1	ug/L	1	1/28/99		5550
1,1,2-trichloroethylene		<1	ug/L	1	1/28/99		5550
Chloroform		<1	ug/L	1	1/28/99		5550
Dichlorobenzene		<2	ug/L	2	1/28/99		5550
1,1-dichloroethylene		<1	ug/L	1	1/28/99		5550
Dichloropropenes		<1	ug/L	1	1/28/99		5550
Ethylbenzene		<1	ug/L	1	1/28/99		5550
Bromodichloromethane		<1	ug/L	1	1/28/99		5550
Bromomethane		<5	ug/L	5	1/28/99		5550
Chloromethane		<1	ug/L	1	1/28/99		5550
[illegible]chlorodifluoromethane		<1	ug/L	1	1/28/99		5550
[illegible]chloromethane		<5	ug/L	5	1/28/99		5550
Trichlorofluoromethane		<1	ug/L	1	1/28/99		5550
Tetrachloroethylene		<1	ug/L	1	1/28/99		5550
Toluene		<1	ug/L	1	1/28/99		5550
Trichloroethylene		<1	ug/L	1	1/28/99		5550
Vinyl chloride		<2	ug/L	2	1/28/99		5550
m,p-xylene		<1	ug/L	1	1/28/99		5550
o-xylene		<1	ug/L	1	1/28/99		5550
1,1-dichloroethane		<1	ug/L	1	1/28/99		5550
Ethylene dibromide		<1	ug/L	1	1/28/99		5550
cis-1,2-dichlorethylene		<1	ug/L	1	1/28/99		5550
trans-1,2-dichloroethylene		<1	ug/L	1	1/28/99		5550
Methylene chloride		<5	ug/L	5	1/28/99		5550
Surr. Dibromofluoromethane		108	%	72-130	[illegible]3/99		5550
Surr. Toluene-d8		98	%	77-127	1[illegible]8/99		5550
Surr. 4-Bromofluorobenzene		106	%	72-131	1/28/99		5550

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Benzidine		<2.5	mg/kg	2.5	1/28/99	5425	5535
Hexachlorobenzene		<0.25	mg/kg	0.25	1/28/99	5425	5535
Pentachlorobenzene		<0.25	mg/kg	0.25	1/28/99	5425	5535
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	1/28/99	5425	5535
Hexachloroethane		<0.25	mg/kg	0.25	1/28/99	5425	5535
2,4-dichlorphenol		<1.25	mg/kg	1.25	1/28/99	5425	5535
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	1/28/99	5425	5535
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	1/28/99	5425	5535
bis (2-chloroethl) ether		<1.25	mg/kg	1.25	1/28/99	5425	5535
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	1/28/99	5425	5535
bis (chloromethyl) ether		<1.25	mg/kg	1.25	1/28/99	5425	5535
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	1/28/99	5425	5535
2,4-dinitrotoluene		<0.25	mg/kg	0.25	1/28/99	5425	5535
Diphenylhydrazine		<1.25	mg/kg	1.25	1/28/99	5425	5535
Hexachlorobutadiene		<0.25	mg/kg	0.25	1/28/99	5425	5535
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	1/28/99	5425	5535
Isophorone		<1.25	mg/kg	1.25	1/28/99	5425	5535
Nitrobenzene		<0.25	mg/kg	0.25	1/28/99	5425	5535
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	1/28/99	5425	5535
2,4-dinitrophenols		<1.25	mg/kg	1.25	1/28/99	5425	5535
n-nitrosodiethylamine		<0.25	mg/kg	0.25	1/28/99	5425	5535
N-nitrosodimethylamine		<0.25	mg/kg	0.25	1/28/99	5425	5535
[redacted]nitrosodibutylamine		<1.25	mg/kg	1.25	1/28/99	5425	5535
[redacted]-nitrosodiphenylamine		<0.25	mg/kg	0.25	1/28/99	5425	5535
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	1/28/99	5425	5535
Pentachlorophenol		<1.25	mg/kg	1.25	1/28/99	5425	5535
Dibutyl phthalate		<0.25	mg/kg	0.25	1/28/99	5425	5535
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	1/28/99	5425	5535
Diethyl phthalate		<0.25	mg/kg	0.25	1/28/99	5425	5535
Dimethyl phthalate		<0.25	mg/kg	0.25	1/28/99	5425	5535
Anthracene		<0.25	mg/kg	0.25	1/28/99	5425	5535
3,4-benzofluoranthene		<0.25	mg/kg	0.25	1/28/99	5425	5535
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	1/28/99	5425	5535
Fluoranthene		<0.25	mg/kg	0.25	1/28/99	5425	5535
Fluorene		<0.25	mg/kg	0.25	1/28/99	5425	5535
Phenanthrene		<0.25	mg/kg	0.25	1/28/99	5425	5535
Pyrene		<0.25	mg/kg	0.25	1/28/99	5425	5535
Naphthalene		<0.25	mg/kg	0.25	1/28/99	5425	5535
1-methylnaphthalene		<0.25	mg/kg	0.25	1/28/99	5425	5535
2-methylnaphthalene		<0.25	mg/kg	0.25	1/28/99	5425	5535
Benzo-a-pyrene		<0.25	mg/kg	0.25	1/28/99	5425	5535
Phenol		<0.25	mg/kg	0.25	1/28/99	5425	5535
Surr. 2-Fluorophenol		59	%	44-108	1/28/99	5425	5535
Surr. Phenol-d6		74	%	53-112	1/28/99	5425	5535
Surr. Nitroobenzene-d5		88	%	51-109	1/28/99	5425	5535
Surr. 2-Fluorobiphenyl		108	%	30-115	1/28/99	5425	5535
Surr. 2,4,6-Tribromophenol		77	%	19-122	1/28/99	5425	5535
[redacted]rr. Terphenyl-d14		112	%	28-137	1/28/99	5425	5535

[redacted]ject Number:
Order ID Number: 9901000368/369
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
PCB		<0.1	mg/kg	0.1	1/28/99	5438	5548
PCB		<0.1	mg/kg	0.1	2/1/99	5439	5549
Cyanide		<0.20	mg/kg	0.20	1/28/99	5430	5540
TRPHC		<10.0	mg/kg	10	1/27/99	5392	5503
Arsenic		<0.50	mg/kg	0.50	2/8/99	5468	5581
Barium		<0.50	mg/kg	0.50	2/8/99	5468	5581
Cadmium		<0.50	mg/kg	0.50	2/8/99	5468	5581
Chromium		<0.50	mg/kg	0.50	2/8/99	5468	5581
Lead		<0.50	mg/kg	0.50	2/8/99	5468	5581
Total Mercury		<0.10	mg/kg	0.10	1/29/99	5441	5551
Selenium		<0.50	mg/kg	0.50	2/8/99	5468	5581
Silver		<0.50	mg/kg	0.50	2/8/99	5468	5581
Uranium		<5.0	mg/kg	5.0	2/8/99	5474	5590
Copper		<1.0	mg/kg	1.0	2/8/99	5468	5581
Iron		<1.0	mg/kg	1.0	2/8/99	5468	5582
Manganese		<1.0	mg/kg	1.0	2/8/99	5468	5581
[redacted]c		<1.0	mg/kg	1.0	2/8/99	5468	5581
[redacted]minum		<10	mg/kg	10	2/8/99	5468	5582
Boron		<10	mg/kg	10	2/8/99	5468	5582
Cobalt		<1.0	mg/kg	1.0	2/8/99	5468	5581
Molybdenum		<0.50	mg/kg	0.50	2/8/99	5468	5581
Nickel		<0.50	mg/kg	0.50	2/8/99	5468	5581
Total Phenols		<1.00	mg/kg	1.00	1/28/99	5442	5552
Total Phenols		<1.00	mg/kg	1.00	1/29/99	5443	5553
Total Phenols		<0.50	mg/kg	0.50	2/10/99	5475	5591
Fluoride		<0.1	mg/kg	0.1	1/28/99	5431	5541
Fluoride		<0.1	mg/kg	0.1	1/29/99	5434	5544
Nitrate		<0.2	mg/kg	0.2	1/28/99	5433	5543
Nitrate		<0.2	mg/kg	0.2	1/29/99	5436	5546
Chloride		<0.5	mg/kg	0.5	1/28/99	5432	5542
Chloride		<0.5	mg/kg	0.5	1/29/99	5435	5545
Sulfate		<0.5	mg/kg	0.5	1/29/99	5437	5547
Total Dissolved Solids		<10	mg/kg	10	1/28/99	5428	5538

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/11/99

Project Number:
Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 9901000368/369

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	102	102	1/28/99	5550
1,1-Dichloroethene		100	ug/L	104	104	1/28/99	5550
Chloroform		100	ug/L	114	114	1/28/99	5550
1,2-Dichloropropane		100	ug/L	102	102	1/28/99	5550
Toluene		100	ug/L	102	102	1/28/99	5550
Chlorobenzene		100	ug/L	100	100	1/28/99	5550
Ethylbenzene		100	ug/L	101	101	1/28/99	5550
Surr. Dibromofluoromethane		100	ug/L	109	109	1/28/99	5550
Surr. Toluene-d8		100	ug/L	97	97	1/28/99	5550
Surr. 4-Bromofluorobenzene		100	ug/L	107	107	1/28/99	5550
[illegible]l chloride		100	ug/L	111	111	2/3/99	5554
[illegible]-Dichloroethene		100	ug/L	111	111	2/3/99	5554
Chloroform		100	ug/L	100	100	2/3/99	5554
1,2-Dichloropropane		100	ug/L	101	101	2/3/99	5554
Toluene		100	ug/L	103	103	2/3/99	5554
Chlorobenzene		100	ug/L	104	104	2/3/99	5554
Ethylbenzene		100	ug/L	104	104	2/3/99	5554
Surr. Dibromofluoromethane		100	ug/L	96	96	2/3/99	5554
Surr. Toluene-d8		100	ug/L	103	103	2/3/99	5554
Surr. 4-Bromofluorobenzene		100	ug/L	100	100	2/3/99	5554
pH		7.0	s.u.	7.0	100	1/27/99	5539
PCB		0.40	mg/L	0.37	93	1/28/99	5548
PCB		0.40	mg/L	0.36	90	2/1/99	5549
Cyanide		0.120	mg/L	0.131	109	1/28/99	5540
Total Phenols		0.800	mg/L	0.806	101	1/28/99	5552
Total Phenols		0.800	mg/L	0.788	99	1/29/99	5553
Total Phenols		0.800	mg/L	0.761	95	2/10/99	5591
TDS		1000	mg/L	995	100	1/28/99	5538
Phenol		80	mg/L	66	83	1/28/99	5535
1,4-Dichlorobenzene		80	mg/L	74	93	1/28/99	5535
2-nitrophenol		80	mg/L	79	99	1/28/99	5535
2,4-Dichlorophenol		80	mg/L	91	114	1/28/99	5535
Hexachlorobutadiene		80	mg/L	76	95	1/28/99	5535
4-Chloro-3-methylphenol		80	mg/L	72	90	1/28/99	5535
2,4,6-Trichlorophenol		80	mg/L	74	93	1/28/99	5535
[illegible]naphthene		80	mg/L	83	104	1/28/99	5535

Cliff P. Brunson.
B.C. International, Inc.
824 W. Marland
Hobbs, NM 88240

Project Number:
Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 9901000368/369

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
n-Nitrosodiphenylamine		80	mg/L	93	116	1/28/99	5535
Pentachlorophenol		80	mg/L	69	86	1/28/99	5535
Fluoranthene		80	mg/L	74	93	1/28/99	5535
Di-n-octylphthalate		80	mg/L	92	115	1/28/99	5535
Benzo(a)pyrene		80	mg/L	82	103	1/28/99	5535
Surr. 2-Fluorophenol		80	mg/L	67	84	1/28/99	5535
Surr. Phenol-d6		80	mg/L	72	90	1/28/99	5535
Surr. Nitrobenzene-d5		80	mg/L	94	118	1/28/99	5535
Surr. 2-Fluorobiphenyl	*	80	mg/L	100	125	1/28/99	5535
Surr. 2,4,6-Tribromophenol		80	mg/L	95	119	1/28/99	5535
Surr. Terphenyl-d14		80	mg/L	95	119	1/28/99	5535
TRPHC		100	mg/L	89	89	1/27/99	5503
Arsenic		1.0	mg/L	1.0	100	2/8/99	5581
Barium		1.0	mg/L	1.0	100	2/8/99	5581
Cadmium		1.0	mg/L	1.05	105	2/8/99	5581
Chromium		1.0	mg/L	1.0	100	2/8/99	5581
Lead		1.0	mg/L	1.05	105	2/8/99	5581
Total Mercury		5.0	mg/L	5.1	102	1/29/99	5551
Selenium		1.0	mg/L	1.05	105	2/8/99	5581
Silver		0.20	mg/L	0.21	105	2/8/99	5581
Uranium		1.0	mg/L	1.0	100	2/8/99	5590
Copper		1.0	mg/L	1.0	100	2/8/99	5581
Iron		1.0	mg/L	0.98	98	2/8/99	5582
Manganese		1.0	mg/L	1.0	100	2/8/99	5581
Zinc		1.0	mg/L	1.1	110	2/8/99	5581
Aluminum		1.0	mg/L	0.97	97	2/8/99	5582
Boron		1.0	mg/L	0.96	96	2/8/99	5582
Cobalt		1.0	mg/L	1.05	105	2/8/99	5581
Molybdenum		1.0	mg/L	1.05	105	2/8/99	5581
Nickel		1.0	mg/L	1.1	110	2/8/99	5581
Fluoride		2.5	mg/L	2.405	96	1/28/99	5541
Fluoride		2.5	mg/L	2.505	100	1/29/99	5544
Nitrate		5.0	mg/L	4.625	93	1/28/99	5543
Nitrate		5.0	mg/L	4.775	96	1/29/99	5546
Chloride		12.5	mg/L	11.97	96	1/28/99	5542
Chloride		12.5	mg/L	12.06	96	1/29/99	5545
Sulfate		12.5	mg/L	11.96	96	1/29/99	5547

*Surrogate out of control limits (64-96)

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

[redacted]iff P. Brunson.
[redacted]B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/11/99
Page # 28

Order ID Number: 9901000368/369

Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene	*	ug/L	<1	100	97	97	100	93	93	4	1/28/99		5550
Benzene	*	ug/L	<1	100	102	102	100	101	101	1	1/28/99		5550
Trichloroethene	*	ug/L	<1	100	98	98	100	96	96	2	1/28/99		5550
Toluene	*	ug/L	<1	100	104	104	100	102	102	2	1/28/99		5550
Chlorobenzene	*	ug/L	<1	100	102	102	100	101	101	1	1/28/99		5550
1,1-Dichloroethene	*	ug/kg	<1	100	102	102	100	102	102	0	2/3/99		5554
Benzene	*	ug/kg	<1	100	110	110	100	111	111	0	2/3/99		5554
Trichloroethene	*	ug/kg	<1	100	110	110	100	110	110	0	2/3/99		5554
Toluene	*	ug/kg	<1	100	109	109	100	108	108	1	2/3/99		5554
Chlorobenzene	*	ug/kg	<1	100	109	109	100	109	109	0	2/3/99		5554
Cyanide		mg/kg	<0.20	3.00	2.55	85	3.00	2.80	93	9	1/28/99	5430	5540
Total Phenol	*	mg/kg	<1.00	10.0	0.71	89	10.0	0.64	80	11	1/28/99	5442	5552
Total Phenol		mg/kg	1.66	10.0	11.4	97	10.0	11.4	97	0	1/29/99	5543	5553
Total Phenol		mg/kg	<0.5	5.0	5.56	111	5.0	5.14	103	7	2/10/99	5476	5591
[redacted]henol	*	mg/L	<0.25	100	77	77	100	79	79	3	1/28/99	5425	5535
[redacted]hlorophenol	*	mg/L	<1.25	100	72	72	100	75	75	3	1/28/99	5425	5535
1,4-Dichlorobenzene	*	mg/L	<0.25	100	65	65	100	67	67	3	1/28/99	5425	5535
n-Nitrosodi-n-propylamine	*	mg/L	<0.25	100	82	82	100	83	83	1	1/28/99	5425	5535
1,2,4-trichlorobenzene	*	mg/L	<0.25	100	76	76	100	76	76	0	1/28/99	5425	5535
4-Chloro-3-methylphenol	*	mg/L	<0.25	100	89	89	100	90	90	1	1/28/99	5425	5535
Acenaphthene	*	mg/L	<0.25	100	93	93	100	95	95	2	1/28/99	5425	5535
4-Nitrophenol	*	mg/L	<0.25	100	105	105	100	94	94	11	1/28/99	5425	5535
2,4-Dinitrotoluene	*	mg/L	<0.25	100	97	97	100	96	96	0	1/28/99	5425	5535
Pentachlorophenol	*	mg/L	<0.25	100	69	69	100	69	69	0	1/28/99	5425	5535
Pyrene	*	mg/L	<0.25	100	94	94	100	107	107	13	1/28/99	5425	5535
TRPHC	*	mg/kg	<10	250	267	107	250	250	100	7	1/27/99	5392	5503
PCB		mg/kg	<0.1	0.5	0.57	114	0.5	0.56	112	2	1/28/99	5438	5548
PCB		mg/kg	<0.1	0.5	0.41	82	0.5	0.45	90	9	2/1/99	5439	5549
Arsenic		mg/kg	<0.50	200	174	87	200	163	82	7	2/8/99	5468	5581
Barium		mg/kg	206	200	407	101	200	379	87	7	2/8/99	5468	5581
Cadmium		mg/kg	1.5	200	200	99	200	183	91	9	2/8/99	5468	5581
Chromium		mg/kg	9.2	200	197	94	200	192	91	3	2/8/99	5468	5581
Lead		mg/kg	17	200	201	92	200	191	87	5	2/8/99	5468	5581
Total Mercury		mg/kg	<0.10	2.5	2.3	92	2.5	2.5	100	8	1/29/99	5541	5551
Selenium		mg/kg	<0.50	200	207	104	200	195	98	6	2/8/99	5468	5581
Silver		mg/kg	25	40	66	103	40	63	95	5	2/8/99	5468	5581
Uranium		mg/kg	<5.0	200	213	107	200	231	116	8	2/8/99	5474	5590
Copper		mg/kg	11	200	206	98	200	197	93	4	2/8/99	5468	5581
Iron	*	mg/kg	<1	200	227	114	200	231	116	2	2/8/99	5468	5582

[redacted]CS's used for spike & spike duplicate.

Cliff P. Brunson.
B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/11/99

Project Number:
Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 9901000368/369

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Manganese		mg/kg	169	200	337	84	200	326	79	3	2/8/99	5468	5581
Zinc		mg/kg	76	200	274	99	200	246	85	11	2/8/99	5468	5581
Aluminum	*	mg/kg	<10	200	213	107	200	214	107	0	2/8/99	5468	5582
Boron		mg/kg	<10	200	173	87	200	176	88	1	2/8/99	5468	5582
Cobalt		mg/kg	6.7	200	198	96	200	187	90	6	2/8/99	5468	5581
Molybdenum		mg/kg	2.5	200	208	103	200	192	95	8	2/8/99	5468	5581
Nickel		mg/kg	21	200	207	93	200	191	85	8	2/8/99	5468	5581
Fluoride		mg/kg	0.81	5.0	5.63	96	5.0	5.56	95	1	1/28/99	5431	5541
Fluoride		mg/kg	1.3	10	11	95	10	11	99	0	1/29/99	5434	5544
Nitrate		mg/kg	6.3	10	14.48	82	10	14.24	80	2	1/28/99	5433	5543
Nitrate		mg/kg	13	20	32	95	20	33	98	0	1/29/99	5436	5546
Chloride		mg/kg	89	25	109	80	25	109	81	0	1/28/99	5432	5542
Chloride		mg/kg	62	50	111	97	50	110	96	1	1/29/99	5435	5545
Sulfate		mg/kg	140	50	183	85	50	178	76	2	1/29/99	5437	5547

*LCS's used for spike & spike duplicate.

Quality Control Report
Duplicate

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/11/99

Project Number:
Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 9901000368/369

Parameter	Flag	Units	Sample Result	Dupliciate Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	7.6	7.6	0	1/27/99	5429	5539
TDS		mg/kg	1,020	1,080	6	1/28/99	5428	5538

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-
Attn: Nell Green

Report Date: 09-Feb-99

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Our Lab#: MEL99-01138 **Your Sample ID:** 117626
Date Logged In: 2/1/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:** Shell Westgate
Project #: **Date Submitted to Lab:** 2/1/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 1/24/99

EPA Method	Analyst	Prep Date	Analysis Date
160.3	DJF		2/4/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	92.6 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	2/4/99	2/5/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 2.0 mg/kg	0.02
12674-11-2	Aroclor 1016	< 10 mg/kg	0.1
11104-28-2	Aroclor 1221	< 10 mg/kg	0.1
11141-16-5	Aroclor 1232	< 10 mg/kg	0.1
53469-21-9	Aroclor 1242	< 10 mg/kg	0.1
12672-29-6	Aroclor 1248	< 10 mg/kg	0.1
11097-69-1	Aroclor 1254	< 10 mg/kg	0.1
11096-82-5	Aroclor 1260	< 10 mg/kg	0.1
319-84-6	alpha-BHC	< 2.0 mg/kg	0.02
319-85-7	beta-BHC	< 2.0 mg/kg	0.02
319-86-8	delta-BHC	< 2.0 mg/kg	0.02
58-89-9	gamma-BHC (Lindane)	< 2.0 mg/kg	0.02
57-74-9	Chlordane(Total)	< 10 mg/kg	0.1
72-54-8	4,4'-DDD	< 2.0 mg/kg	0.02
72-55-9	4,4'-DDE	< 3.0 mg/kg	0.03
50-29-3	4,4'-DDT	< 3.0 mg/kg	0.03

6878 S. STATE ROUTE 100 • P.O. BOX 76 • MELMORE, OH 44845-9999
PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

CAS Number	Parameter	Result	Typical Report Limit
60-57-1	Dieldrin	< 2.0 mg/kg	0.02
959-98-8	Endosulfan I	< 3.0 mg/kg	0.03
33213-65-9	Endosulfan II	< 3.0 mg/kg	0.03
1031-07-8	Endosulfan sulfate	< 3.0 mg/kg	0.03
72-20-8	Endrin	< 5.0 mg/kg	0.05
7421-93-4	Endrin aldehyde	< 5.0 mg/kg	0.05
76-44-8	Heptachlor	< 3.0 mg/kg	0.03
1024-57-3	Heptachlor epoxide	< 3.0 mg/kg	0.03
72-43-5	Methoxychlor	< 3.0 mg/kg	0.03
8001-35-2	Toxaphene	< 10 mg/kg	0.1

End of Report

Report Approved By: Wade E. Bayer

Wade E. Bayer

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Your Sample ID: 117626

Lab Number MEL99-01138

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-
Attn: Nell Green

Report Date: *09-Feb-99*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Our Lab#: MEL99-01139 **Your Sample ID:** 117627
Date Logged In: 2/1/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:** Shell Westgate
Project #: **Date Submitted to Lab:** 2/1/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 1/24/99

EPA Method	Analyst	Prep Date	Analysis Date
160.3	DJF		2/4/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	92.6 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	2/4/99	2/5/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 2.0 mg/kg	0.02
12674-11-2	Aroclor 1016	< 10 mg/kg	0.1
11104-28-2	Aroclor 1221	< 10 mg/kg	0.1
11141-16-5	Aroclor 1232	< 10 mg/kg	0.1
53469-21-9	Aroclor 1242	< 10 mg/kg	0.1
12672-29-6	Aroclor 1248	< 10 mg/kg	0.1
11097-69-1	Aroclor 1254	< 10 mg/kg	0.1
11096-82-5	Aroclor 1260	< 10 mg/kg	0.1
319-84-6	alpha-BHC	< 2.0 mg/kg	0.02
319-85-7	beta-BHC	< 2.0 mg/kg	0.02
319-86-8	delta-BHC	< 2.0 mg/kg	0.02
58-89-9	gamma-BHC (Lindane)	< 2.0 mg/kg	0.02
57-74-9	Chlordane(Total)	< 10 mg/kg	0.1
72-54-8	4,4'-DDD	< 2.0 mg/kg	0.02
72-55-9	4,4'-DDE	< 3.0 mg/kg	0.03
50-29-3	4,4'-DDT	< 3.0 mg/kg	0.03

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PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

CAS Number	Parameter	Result	Typical Report Limit
60-57-1	Dieldrin	< 2.0 mg/kg	0.02
959-98-8	Endosulfan I	< 3.0 mg/kg	0.03
33213-65-9	Endosulfan II	< 3.0 mg/kg	0.03
1031-07-8	Endosulfan sulfate	< 3.0 mg/kg	0.03
72-20-8	Endrin	< 5.0 mg/kg	0.05
7421-93-4	Endrin aldehyde	< 5.0 mg/kg	0.05
76-44-8	Heptachlor	< 3.0 mg/kg	0.03
1024-57-3	Heptachlor epoxide	< 3.0 mg/kg	0.03
72-43-5	Methoxychlor	< 3.0 mg/kg	0.03
8001-35-2	Toxaphene	< 10 mg/kg	0.1

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-01139	8081	Decachlorobiphenyl (Surr)	1 %R *	41	129
		SURROGATE DILUTED OUT DUE TO MATRIX INTERFERENCE			
MEL99-01139	8081	Tetrachloro-m-xylene (Surr)	1 %R *	27	119
		SURROGATE DILUTED OUT DUE TO MATRIX INTERFERENCE			

End of Report

Report Approved By: Wade E. Bayer

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Your Sample ID: 117627 *Lab Number MEL99-01139*

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PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-
Attn: Nell Green

Report Date: *09-Feb-99*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Our Lab#: MEL99-01140 **Your Sample ID:** 117628
Date Logged In: 2/1/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:** Shell Westgate
Project #: **Date Submitted to Lab:** 2/1/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 1/24/99

EPA Method	Analyst	Prep Date	Analysis Date		
160.3	DJF		2/4/99		
	CAS Number	**Parameter**		**Result**	**Typical Report Limit**
		Solids, Percent		95.2 %	
EPA Method	**Analyst**	**Prep Date**	**Analysis Date**		
8081	SH	2/4/99	2/5/99		
	CAS Number	**Parameter**		**Result**	**Typical Report Limit**
	309-00-2	Aldrin		< 2.0 mg/kg	0.02
	12674-11-2	Aroclor 1016		< 10 mg/kg	0.1
	11104-28-2	Aroclor 1221		< 10 mg/kg	0.1
	11141-16-5	Aroclor 1232		< 10 mg/kg	0.1
	53469-21-9	Aroclor 1242		< 10 mg/kg	0.1
	12672-29-6	Aroclor 1248		< 10 mg/kg	0.1
	11097-69-1	Aroclor 1254		< 10 mg/kg	0.1
	11096-82-5	Aroclor 1260		< 10 mg/kg	0.1
	319-84-6	alpha-BHC		< 2.0 mg/kg	0.02
	319-85-7	beta-BHC		< 2.0 mg/kg	0.02
	319-86-8	delta-BHC		< 2.0 mg/kg	0.02
	58-89-9	gamma-BHC (Lindane)		< 2.0 mg/kg	0.02
	57-74-9	Chlordane(Total)		< 10 mg/kg	0.1
	72-54-8	4,4'-DDD		< 2.0 mg/kg	0.02
	72-55-9	4,4'-DDE		< 3.0 mg/kg	0.03
	50-29-3	4,4'-DDT		< 3.0 mg/kg	0.03

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

CAS Number	Parameter	Result	Typical Report Limit
60-57-1	Dieldrin	< 2.0 mg/kg	0.02
959-98-8	Endosulfan I	< 3.0 mg/kg	0.03
33213-65-9	Endosulfan II	< 3.0 mg/kg	0.03
1031-07-8	Endosulfan sulfate	< 3.0 mg/kg	0.03
72-20-8	Endrin	< 5.0 mg/kg	0.05
7421-93-4	Endrin aldehyde	< 5.0 mg/kg	0.05
76-44-8	Heptachlor	< 3.0 mg/kg	0.03
1024-57-3	Heptachlor epoxide	< 3.0 mg/kg	0.03
72-43-5	Methoxychlor	< 3.0 mg/kg	0.03
8001-35-2	Toxaphene	< 10 mg/kg	0.1

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-01140	8081	Decachlorobiphenyl (Surr)	1 %R *	41	129
		SURROGATE DILUTED OUT DUE TO MATRIX INTERFERENCE			
MEL99-01140	8081	Tetrachloro-m-xylene (Surr)	1 %R *	27	119
		SURROGATE DILUTED OUT DUE TO MATRIX INTERFERENCE			

End of Report

Report Approved By: Wade E. Bayer

Wade E. Bayer

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Your Sample ID: 117628

Lab Number MEL99-01140

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Mitchell Davis and Associates. Inc.

Post Office Box 606
Gramercy, LA 70052-0606
-800-679-9874 Phone: 225-869-7000 Fax: (225) 869-7002

Mitchell Davis and Associates, Inc.

Laboratory Analysis Report

Prepared For:

Trace Analysis, Inc.
Nell Green
6701 Aberdeen Ave, Ste. 9
Lubbock, TX 79424
Phone: 806-794-1296
Fax: 806-794-1298

Quality Assurance Review

Mitchell Davis and Associates, Inc. assumes no liability for the use or interpretation of any analytical results other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Mitchell Davis and Associates. Inc.

Post Office Box 606
Gramercy, LA 70052-0606
1-800-679-9874 Phone: 225-869-7000 Fax: (225) 869-7002

Tracking Number:	DAV-99-0200	**P.O. Number:**	Verbal
Client ID:	117626	**Davis Sample ID:**	DAV-99-0500
Date Sampled:	1/24/99	**Date Received:**	1/29/99
Time Sampled:	1200	**Time Received:**	1105
Type of Sample:	Solid	**Date of Report:**	1/31/99

Analysis Description	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	2.25	1.76	pCi/gm	0.08	0.07	Bq/gm	EPA 901.1M	1/30/99 1243	md
Ra-228	0.66	0.45	pCi/gm	0.02	0.02	Bq/gm	EPA 901.1M	1/30/99 1243	md
Pb-210	<2.23	N/A	pCi/gm	<0.08	N/A	Bq/gm	EPA 901.1M	1/30/99 1243	md
Total Activity	8.32	N/A	pCi/gm	0.31	N/A	Bq/gm	EPA 901.1M	1/30/99 1243	md

Notes:

Quality Assurance Review

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800-679-9874 Phone: 225-869-7000 Fax: (225) 869-7002

Tracking Number:	DAV-99-0200	**P.O. Number:**	Verbal
Client ID:	117627	**Davis Sample ID:**	DAV-99-0501
Date Sampled:	1/24/99	**Date Received:**	1/29/99
Time Sampled:	1220	**Time Received:**	1105
Type of Sample:	Solid	**Date of Report:**	1/31/99

Analysis Description	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	1.82	1.58	pCi/gm	0.07	0.06	Bq/gm	EPA 901.1M	1/30/99 1404	md
Ra-228	0.70	0.44	pCi/gm	0.03	0.02	Bq/gm	EPA 901.1M	1/30/99 1404	md
Pb-210	2.35	1.56	pCi/gm	0.09	0.06	Bq/gm	EPA 901.1M	1/30/99 1404	md
Total Activity	17.19	N/A	pCi/gm	0.64	N/A	Bq/gm	EPA 901.1M	1/30/99 1404	md

Notes:

Quality Assurance Review

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Mitchell Davis and Associates. Inc.

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1-800-679-9874 Phone: 225-869-7000 Fax: (225) 869-7002

Tracking Number:	DAV-99-0200	**P.O. Number:**	Verbal
Client ID:	117628	**Davis Sample ID:**	DAV-99-0502
Date Sampled:	1/24/99	**Date Received:**	1/29/99
Time Sampled:	1240	**Time Received:**	1105
Type of Sample:	Solid	**Date of Report:**	1/31/99

Analysis Description	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	1.88	1.43	pCi/gm	0.07	0.05	Bq/gm	EPA 901.1M	1/30/99 1808	md
Ra-228	<0.66	N/A	pCi/gm	<0.02	N/A	Bq/gm	EPA 901.1M	1/30/99 1808	md
Pb-210	<1.78	N/A	pCi/gm	<0.07	N/A	Bq/gm	EPA 901.1M	1/30/99 1808	md
Total Activity	4.37	N/A	pCi/gm	0.16	N/A	Bq/gm	EPA 901.1M	1/30/99 1808	md

Notes:

Quality Assurance Review

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Mitchell Davis and Associates. Inc.

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Gramercy, LA 70052-0606
1-800-679-9874 Phone: 225-869-7000 Fax: (225) 869-7002

Notes:

Comments:

1. Soil and Sludge analysis results are reported on a wet basis or as received basis unless otherwise indicated.
2. The data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
3. Modified analysis procedures are procedures that are modified to meet certain specifications. An example would be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix.
4. Derived Air Concentrations and Effluent Release Concentrations are obtained from 10 CFR 20 Appendix B.
5. Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring decay chains and other prominent radioactive isotopes. Total activity may be lower than actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of isotopes that emit solely alpha or beta radiation.
6. Ra-228 is determined via secular equilibrium with its daughter, Actinium 228. (Gamma Spectroscopy only)
7. U-238 is determined via secular equilibrium with its daughter, Thorium 234. (Gamma Spectroscopy only).
8. All Gamma Spectroscopy was performed using high purity germanium detectors (HPGE).

Method References:

1. EPA 600/4-80-032, Prescribed Procedures for the Measurement of Radioactivity in Drinking Water, August 1980.
2. Standard Methods for the Examination of Water and Waste Water, 18th, 1992.
3. EPA SW-846, Test Methods for Evaluating Solid Waste, Third Edition, (9/86). (Updated through 1995)
4. EPA 600/4/79-020, Methods for Chemical Analysis of Water and Waste, March 1983.
5. HASL 300

Definitions:

1.	BDL	Analyte not detected because the value was below the detection limit.
2.	ND	Not detected above the detection limit.
3.	Detection Limit	The minimum amount of the analyte that can be detected utilizing the specific analysis.
4.	B	Method Blank
5.	D	Method Duplicate
6.	MS	Matrix Spike
7.	S	Spike
8.	RS	Reference Spike
9.	SC	Subcontracted to qualified laboratory
10.	NR	Not Referenced

Mitchell Davis and Associates, Inc. assumes no liability for the useor interpretation of any analytical results other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

117624-34

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 368/369

Company Name: BBC International, Inc. Phone #: 505-397-6388

Address: (Street, City, Zip) 1324 W. Marland Hobbs, NM 88240 Fax #: 505-397-0397

Contact Person: Cliff P. Brunson

Invoice to: (If different from above) Shell E&P Technology Co. 200 N. Dairy Ashford WCK Room 4304 Attn: Wayne Hamilton Houston, TX 77077

Project #: Project Name: Shell Westgate

Project Location: Hobbs, NM Sampler Signature: Cliff P. Brunson

ANALYSIS REQUEST

(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
117624	Field Blank	2	40ml VOA	✓				✓					1/27/99	3:00pm
117625	Trip Blank	2	40ml VOA	✓						✓			"	3:00pm
117626	GBN-1 (6")	5	40z Jar		✓					✓			"	12:00pm
	GBN-1 (6")	1	40ml VOA		✓							✓	"	12:00pm
27	GBN-2 (6")	5	40z Jar		✓					✓			"	12:20pm
	GBN-2 (6")	1	40ml VOA		✓							✓	"	12:20pm
28	GBN-3 (6")	5	40z Jar		✓					✓			"	12:40pm
	GBN-3 (6")	1	40ml VOA		✓							✓	"	12:40pm
29	GBS-1 (6")	1	40z Jar		✓					✓			"	1:00pm
	GBS-1 (6")	1	40ml VOA		✓							✓	"	1:00pm

	MTBE 8021B/602	BTEX 8021B/602 or 8260	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	See Attached (Full Suite)	Total Chlorides (300.1)	Total metals (6010)	Turn Around Time if different from standard	Hold
117624											✓					✓				
117625											✓					✓				
117626																✓				
		XX														✓				
27																✓				
		XX														✓				
28																✓				
		XX														✓				
29			✓														✓	✓		
		✓																		

Relinquished by: Cliff P. Brunson Date: 1/26/99 Time: 8:00am

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received at Laboratory by: Vicki Woodham Date: 1-27-99 Time: 9:00 AM

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

LAB USE ONLY

Intact (Y) / N

Headspace Y / N

Temp 4 °

Log-in Review

REMARKS:

Agreed upon turnaround

Run 1006 on 117626-28 per Sharon Wallace

Carrier # Greyhound 901-984-680-3

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 368

Company Name: BBC International, Inc. Phone #: 505-397-6388

Address: (Street, City, Zip) 1324 W. Marland Hobbs, NM 88240 Fax #: 505-397-0397

Contact Person: Cliff P. Brunson

Invoice to: (If different from above) Shell E&P Technology Co. Attn: Wayne Hamilton

Project #: Project Name: Shell Westgate

Project Location: Hobbs, NM Sampler Signature: Cliff P. Brunson

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
117630	GBS-2 (6")	1	40z Jar		✓					✓			1/26/99	1:20pm
	GBS-2 (6")	1	40ml VOA		✓							✓	"	1:24pm
31	GBS-3 (6")	1	40z Jar		✓					✓			"	1:40pm
	GBS-3 (6")	1	40ml VOA		✓							✓	"	1:40pm
32	Bckg-1	1	40z Jar		✓					✓			"	2:00pm
33	Bckg-2	1	40z Jar		✓					✓			"	2:20pm
34	Bckg-3	1	40z Jar		✓					✓			"	2:40pm

ANALYSIS REQUEST	Turn Around Time if different from standard	Hold
MTBE 8021B/602		
BTEX [illegible] 8260		
TPH 418.1/TX1005		
PAH 8270C		
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7		
TCLP Metals Ag As Ba Cd Cr Pb Se Hg		
TCLP Volatiles		
TCLP Semi. Volatiles		
TCLP Pesticides		
RCI		
GC-MS Vol. 8260B/624		
GC/MS Semi. Vol. 8270C/625		
PCB's 8082/608		
Pesticides 8081A/608		
BOD, TSS, pH		
See attached (Full Suite)		
Total Chlorides (300.1)	✓	
Total metals (6010)	✓	
	✓	
	✓	

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Cliff P. Brunson	1/26/99	8:00 am			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: Vicki Wrdhan	1-27-99	9:00 am

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

LAB USE ONLY

Intact (Y) N

Headspace Y / N

Temp 4 °

Log-in Review MB

REMARKS: Agreed upon turnaround

Carrier # Greyhound 901-584-6803

ORIGINAL COPY

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/17/99
Page: #1

Order ID Number: 990200027/28

Project Name: Shell Westgate
Project Location: Hobbs, NM

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
118048	GSB 12 8-10'	Soil	02/01/99		02/02/99
118049	GSB 12 18-20'	Soil	02/01/99		02/02/99
118050	GSB 13 18-20'	Soil	02/01/99		02/02/99
118051	GSB 14 8-10'	Soil	02/01/99		02/02/99
118052	GSB 14 18-20'	Soil	02/01/99		02/02/99
118053	Trip Blank	Water	02/01/99		02/02/99
118054	Field Blank	Water	02/01/99		02/02/99

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

This report shall not be reproduced except in its entirety, without written approval of the laboratory.

These results represent only the samples received in the laboratory.

This report consists of a total of 12 pages.

*LCS's used for spike & spike duplicate .

Dr. Blair Leftwich
Director

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/17/99
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Project Number:
Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 990200027/28
Sample Number: 118048

Field Code: GSB 12 8-10'

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzene		<26	ug/kg	S-8260B		02/05/99	JG		5583	26
Toluene		<26	ug/kg	S-8260B		02/05/99	JG		5583	26
Ethylbenzene		<26	ug/kg.	S-8260B		02/05/99	JG		5583	26
m,p-xylene		<26	ug/kg	S-8260B		02/05/99	JG		5583	26
o-xylene		<26	ug/kg	S-8260B		02/05/99	JG		5583	26
Surr. Dibromofluoromethane		96	%	S-8260B		02/05/99	JG		5583	72-130
Surr. Toluene-d8		105	%	S-8260B		02/05/99	JG		5583	77-127
Surr. 4-Bromofluorobenzene		101	%	S-8260B		02/05/99	JG		5583	72-131
Arsenic		<0.50	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Barium		602	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Cadmium		0.42	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.10
Chromium		3.2	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Lead		0.71	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Total Mercury		<0.10	mg/kg	7471A	02/03/99	02/10/99	BP	5494	5612	0.10
Selenium		<0.50	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Silver		7.8	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Uranium		<5.0	mg/kg	6010B	02/03/99	02/08/99	RR	5496	5614	5.0
Copper		3.9	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	1.0
Iron		1,770	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	2.0
Manganese		15	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	1.0
Zinc		5.4	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	1.0
Aluminum		2,960	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	10
Boron		13	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	10
Cobalt		4.4	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	1.0
Molybdenum		1.5	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Nickel		27	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
TRPHC		<10.0	mg/kg	418.1	02/03/99	02/04/99	MF	5423	5423	10

Analytical Results Report

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1324 W. Marland
Hobbs, NM 88240

Date: 2/17/99
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Project Number:
Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 990200027/28
Sample Number: 118049

Field Code: GSB 12 18-20'

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzene		<26	ug/kg	S-8260B		2/5/99	JG		5583	26
Toluene		<26	ug/kg	S-8260B		2/5/99	JG		5583	26
Ethylbenzene		<26	ug/kg	S-8260B		2/5/99	JG		5583	26
m,p-xylene		<26	ug/kg	S-8260B		2/5/99	JG		5583	26
o-xylene		<26	ug/kg	S-8260B		2/5/99	JG		5583	26
Surr. Dibromofluoromethane		97	%	S-8260B		2/5/99	JG		5583	72-130
Surr. Toluene-d8		104	%	S-8260B		2/5/99	JG		5583	77-127
Surr. 4-Bromofluorobenzene		101	%	S-8260B		2/5/99	JG		5583	72-131
Arsenic		<0.50	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Barium		220	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Cadmium		0.38	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.10
Chromium		3.2	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Lead		4.2	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Total Mercury		<0.10	mg/kg	7471A	02/03/99	02/05/99	BP	5494	5612	0.10
Selenium		<0.50	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Silver		13	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Uranium		<5.0	mg/kg	6010B	02/03/99	02/08/99	RR	5496	5614	5.0
Copper		4.4	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	1.0
Iron		1,890	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	2.0
Manganese		34	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	1.0
Zinc		5.8	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	1.0
Aluminum		3,100	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	10
Boron		<10	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	10
Cobalt		3.7	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	1.0
Molybdenum		1.9	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Nickel		18	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
TRPHC		<10.0	mg/kg	418.1	02/03/99	02/04/99	MF	5423	5533	10.00

Analytical Results Report

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Project Number:
Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 990200027/28
Sample Number: 118050

Field Code: GSB 13 18-20'

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzene		<25	ug/kg	S-8260B		02/05/99	JG		5583	25
Toluene		<25	ug/kg	S-8260B		02/05/99	JG		5583	25
Ethylbenzene		<25	ug/kg	S-8260B		02/05/99	JG		5583	25
m,p-xylene		<25	ug/kg	S-8260B		02/05/99	JG		5583	25
o-xylene		<25	ug/kg	S-8260B		02/05/99	JG		5583	25
Surr. Dibromofluoromethane		98	%	S-8260B		02/05/99	JG		5583	72-130
Surr. Toluene-d8		103	%	S-8260B		02/05/99	JG		5583	77-127
Surr. 4-Bromofluorobenzene		101	%	S-8260B		02/05/99	JG		5583	72-131
Arsenic		<0.50	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Barium		25	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Cadmium		0.34	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.10
Chromium		4.9	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Lead		<0.50	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Total Mercury		<0.10	mg/kg	7471A	02/03/99	02/10/99	BP	5494	5612	0.10
Selenium		<0.50	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Silver		17	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Uranium		<5.0	mg/kg	6010B	02/03/99	02/08/99	RR	5496	5614	5.0
Copper		7.1	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	1.0
Iron		2,580	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	2.0
Manganese		40	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	1.0
Zinc		8.0	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	1.0
Aluminum		3,620	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	10
Boron		<10	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	10
Cobalt		3.3	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	1.0
Molybdenum		2	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Nickel		14	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
TRPHC		<10.0	mg/kg	418.1	02/03/99	02/04/99	MF	5422	5533	10

Analytical Results Report

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Project Number:
Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 990200027/28
Sample Number: 118051

Field Code: GSB 14 8-10'

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzene		<37	ug/kg	S-8260B		02/05/99	JG		5583	37
Toluene		<37	ug/kg	S-8260B		02/05/99	JG		5583	37
Ethylbenzene		<37	ug/kg	S-8260B		02/05/99	JG		5583	37
m,p-xylene		<37	ug/kg	S-8260B		02/05/99	JG		5583	37
o-xylene		<37	ug/kg	S-8260B		02/05/99	JG		5583	37
Surr. Dibromofluoromethane		99	%	S-8260B		02/05/99	JG		5583	72-130
Surr. Toluene-d8		104	%	S-8260B		02/05/99	JG		5583	77-127
Surr. 4-Bromofluorobenzene		99	%	S-8260B		02/05/99	JG		5583	72-131
Arsenic		<0.50	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Barium		293	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Cadmium		0.28	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.10
romium		4.8	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
ead		<0.50	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Total Mercury		<0.10	mg/kg	7471A	02/03/99	02/10/99	BP	5494	5612	0.10
Selenium		<0.50	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Silver		15	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Uranium		<5.0	mg/kg	6010B	02/03/99	02/08/99	RR	5496	5614	5.0
Copper		3.3	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	1.0
Iron		2,830	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	2.0
Manganese		21	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	1.0
Zinc		8.3	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	1.0
Aluminum		4,830	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	10
Boron		19	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	10
Cobalt		3.5	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	1.0
Molybdenum		2.4	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Nickel		17	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
TRPHC		<10.0	mg/kg	418.1	02/03/99	02/04/99	MF	5423	5533	10

Analytical Results Report

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1324 W. Marland
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Project Number:
Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 990200027/28
Sample Number: 118052

Field Code: GSB 14 18-20'

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzene		<27	ug/kg	S-8260B		02/05/99	JG		5583	27
Toluene		<27	ug/kg	S-8260B		02/05/99	JG		5583	27
Ethylbenzene		<27	ug/kg	S-8260B		02/05/99	JG		5583	27
m,p-xylene		<27	ug/kg	S-8260B		02/05/99	JG		5583	27
o-xylene		<27	ug/kg	S-8260B		02/05/99	JG		5583	27
Surr. Dibromofluoromethane		99	%	S-8260B		02/05/99	JG		5583	72-130
Surr. Toluene-d8		103	%	S-8260B		02/05/99	JG		5583	77-127
Surr. 4-Bromofluorobenzene		101	%	S-8260B		02/05/99	JG		5583	72-131
Arsenic		<0.50	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Barium		221	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
[redacted]admium		0.28	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.10
[redacted]hromium		4.0	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Lead		0.98	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Total Mercury		<0.10	mg/kg	7471A	02/03/99	02/10/99	BP	5494	5612	0.10
Selenium		<0.50	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Silver		14	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Uranium		<5.0	mg/kg	6010B	02/03/99	02/08/99	RR	5496	5614	5.0
Copper		4.3	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	1.0
Iron		2,150	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	2.0
Manganese		25	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	1.0
Zinc		6.0	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	1.0
Aluminum		3,240	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	10
Boron		11	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	10
Cobalt		3.6	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	1.0
Molybdenum		1.7	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
Nickel		23	mg/kg	6010B	02/03/99	02/08/99	RR	5495	5613	0.50
TRPHC		<10.0	mg/kg	418.1	02/03/99	02/04/99	MF	5423	5533	10

Analytical Results Report

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1324 W. Marland
Hobbs, NM 88240

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Project Number:
Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 990200027/28
Sample Number: 118053

Field Code: Trip Blank

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzene		<1	ug/L	S-8260B		02/04/99	JG		5584	1
Toluene		<1	ug/L	S-8260B		02/04/99	JG		5584	1
Ethylbenzene		<1	ug/L	S-8260B		02/04/99	JG		5584	1
m,p-xylene		<1	ug/L	S-8260B		02/04/99	JG		5584	1
o-xylene		<1	ug/L	S-8260B		02/04/99	JG		5584	1
Surr. Dibromofluoromethane		91	%	S-8260B		02/04/99	JG		5584	72-130
Surr. Toluene-d8		112	%	S-8260B		02/04/99	JG		5584	77-127
Surr. 4-Bromofluorobenzene		97	%	S-8260B		02/04/99	JG		5584	72-131

Analytical Results Report

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1324 W. Marland
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Project Number:
Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 990200027/28
Sample Number: 118054

Field Code:

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzene		<1	ug/L	S-8260B		02/04/99	JG		5584	1
Toluene		<1	ug/L	S-8260B		02/04/99	JG		5584	1
Ethylbenzene		<1	ug/L	S-8260B		02/04/99	JG		5584	1
m,p-xylene		<1	ug/L	S-8260B		02/04/99	JG		5584	1
o-xylene		<1	ug/L	S-8260B		02/04/99	JG		5584	1
Surr. Dibromofluoromethane		90	%	S-8260B		02/04/99	JG		5584	72-130
Surr. Toluene-d8		112	%	S-8260B		02/04/99	JG		5584	77-127
Surr. 4-Bromofluorobenzene		96	%	S-8260B		02/04/99	JG		5584	72-131

Quality Control Report
Blanks

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1324 W. Marland
Hobbs, NM 88240

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Project Number:
Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 990200027/28

Parameter	FLAG	Result	Units	Limit	Analyzed	Prep. Batch #	Run Batch #
Benzene		<25	ug/kg	25	02/05/99		5583
Toluene		<25	ug/kg	25	02/05/99		5583
Ethylbenzene		<25	ug/kg	25	02/05/99		5583
m,p-xylene		<25	ug/kg	25	02/05/99		5583
o-xylene		<25	ug/kg	25	02/05/99		5583
Surr. Dibromofluoromethane		99	%	72-130	02/05/99		5583
Surr. Toluene-d8		103	%	77-127	02/05/99		5583
Surr. 4-Bromofluorobenzene		103	%	72-131	02/05/99		5583
Benzene		<1	ug/L	1	02/04/99		5584
Toluene		<1	ug/L	1	02/04/99		5584
Ethylbenzene		<1	ug/L	1	02/04/99		5584
m,p-xylene		<1	ug/L	1	02/04/99		5584
o-xylene		<1	ug/L	1	02/04/99		5584
Surr. Dibromofluoromethane		91	%	72-130	02/04/99		5584
Surr. Toluene-d8		111	%	77-127	02/04/99		5584
Surr. 4-Bromofluorobenzene		98	%	72-131	02/04/99		5584
Arsenic		<0.50	mg/kg	0.50	02/08/99	5495	5613
Barium		<0.50	mg/kg	0.50	02/08/99	5495	5613
Cadmium		<0.10	mg/kg	0.10	02/08/99	5495	5613
Chromium		<0.50	mg/kg	0.50	02/08/99	5495	5613
Lead		<0.50	mg/kg	0.50	02/08/99	5495	5613
Total Mercury		<0.10	mg/kg	0.10	02/10/99	5494	5612
Selenium		<0.50	mg/kg	0.50	02/08/99	5495	5613
Silver		<0.50	mg/kg	0.50	02/08/99	5495	5613
Uranium		<5.0	mg/kg	5.0	02/08/99	5496	5614
Copper		<1.0	mg/kg	1.0	02/08/99	5495	5613
Iron		<2.0	mg/kg	2.0	02/08/99	5495	5613
Manganese		<1.0	mg/kg	1.0	02/08/99	5495	5613
Zinc		<1.0	mg/kg	1.0	02/08/99	5495	5613
Aluminum		<10	mg/kg	10	02/08/99	5495	5613
Boron		<10	mg/kg	10	02/08/99	5495	5613
Cobalt		<1.0	mg/kg	1.0	02/08/99	5495	5613
Molybdenum		<0.50	mg/kg	0.50	02/08/99	5495	5613
Nickel		<0.50	mg/kg	0.50	02/08/99	5495	5613
TRPHC		<10	mg/kg	10	02/04/99	5423	5533

Quality Control Report
Continuing Calibration Verification Standard

[redacted]iff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/17/99
Page: #10

Project Number:
Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 990200027/28

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	95	95	02/04/99	5584
1,1-Dichloroethene		100	ug/L	85	85	02/04/99	5584
Chloroform		100	ug/L	85	85	02/04/99	5584
1,2-Dichloropropane		100	ug/L	96	96	02/04/99	5584
Toluene		100	ug/L	85	85	02/04/99	5584
Chlorobenzene		100	ug/L	100	100	02/04/99	5584
Ethylbenzene		100	ug/L	99	99	02/04/99	5584
Surr. Dibromofluoromethane		100	%	94	94	02/04/99	5584
Surr. Toluene-d8		100	%	110	110	02/04/99	5584
Surr. 4-Bromofluorobenzene		100	%	99	99	02/04/99	5584
[redacted]yl chloride		100	ug/L	114	114	02/05/99	5583
[redacted]-Dichloroethene		100	ug/L	109	109	02/05/99	5583
Chloroform		100	ug/L	107	107	02/05/99	5583
1,2-Dichloropropane		100	ug/L	108	108	02/05/99	5583
Toluene		100	ug/L	104	104	02/05/99	5583
Chlorobenzene		100	ug/L	103	103	02/05/99	5583
Ethylbenzene		100	ug/L	104	104	02/05/99	5583
Surr. Dibromofluoromethane		100	%	97	97	02/05/99	5583
Surr. Toluene-d8		100	%	104	104	02/05/99	5583
Surr. 4-Bromofluorobenzene		100	%	99	99	02/05/99	5583
Arsenic		1.0	mg/L	1.0	100	02/08/99	5613
Barium		1.0	mg/L	1.0	100	02/08/99	5613
Cadmium		1.0	mg/L	1.0	100	02/08/99	5613
Chromium		1.0	mg/L	1.0	100	02/08/99	5613
Lead		1.0	mg/L	1.0	100	02/08/99	5613
Total Mercury		5.0	mg/L	4.7	94	02/05/99	5612
Selenium		1.0	mg/L	1.0	100	02/08/99	5613
Silver		0.20	mg/L	0.21	105	02/08/99	5613
Uranium		1.0	mg/L	1.0	100	02/08/99	5614
Copper		1.0	mg/L	1.0	100	02/08/99	5613
Iron		1.0	mg/L	0.96	96	02/08/99	5613
Manganese		1.0	mg/L	1.0	100	02/08/99	5613
Zinc		1.0	mg/L	1.0	100	02/08/99	5613
[redacted]minum		1.0	mg/L	0.95	95	02/08/99	5613
[redacted]ron		1.0	mg/L	0.92	92	02/08/99	5613

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/17/99

Project Number:
Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 990200027/28

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Cobalt		1.0	mg/L	1.0	100	02/08/99	5613
Molybdenum		1.0	mg/L	1.0	100	02/08/99	5613
Nickel		1.0	mg/L	1.0	100	02/08/99	5613
TRPHC		100	mg/L	101	101	02/04/99	5523

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/17/99
Page: #12

Project Number:
Project Name: Shell Westgate
Project Location: Hobbs, NM

Order ID Number: 990200027/28

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene	*	ug/L	<1	100	75	75	100	79	79	5	02/04/99		5584
Benzene	*	ug/L	<1	100	80	80	100	86	86	7	02/04/99		5584
Trichloroethene	*	ug/L	<1	100	73	73	100	79	79	8	02/04/99		5584
Toluene	*	ug/L	<1	100	81	81	100	86	86	6	02/04/99		5584
Chlorobenzene	*	ug/L	<1	100	98	98	100	106	106	8	02/04/99		5584
1,1-Dichloroethene		ug/kg	<29	100	102	102	100	102	102	0	02/05/99		5583
Benzene		ug/kg	<29	100	111	111	100	111	111	0	02/05/99		5583
Trichloroethene		ug/kg	<29	100	111	111	100	111	111	0	02/05/99		5583
Toluene		ug/kg	<29	100	110	110	100	111	111	1	02/05/99		5583
Chlorobenzene		ug/kg	<29	100	109	109	100	111	111	2	02/05/99		5583
[illegible]rsenic		mg/kg	<0.50	200	172	86	200	166	83	4	02/08/99	5495	5613
[illegible]arium	*	mg/kg	<0.50	200	191	96	200	185	93	3	02/08/99	5495	5613
Cadmium		mg/kg	0.42	200	157	78	200	158	79	1	02/08/99	5495	5613
Chromium		mg/kg	3.2	200	168	82	200	176	86	5	02/08/99	5495	5613
Lead		mg/kg	0.71	200	154	77	200	160	80	4	02/08/99	5495	5613
Total Mercury		mg/kg	<0.10	2.5	2.0	80	2.5	2.1	84	5	02/05/99	5494	5612
Selenium		mg/kg	<0.50	200	173	87	200	176	88	1	02/08/99	5495	5613
Silver		mg/kg	7.8	40	41	83	40	43	88	5	02/08/99	5495	5613
Uranium		mg/kg	<5.0	200	173	87	200	174	87	0	02/08/99	5696	5614
Copper		mg/kg	3.9	200	182	89	200	190	93	4	02/08/99	5495	5613
Iron	*	mg/kg	<2.0	200	228	114	200	201	101	12	02/08/99	5495	5613
Manganese		mg/kg	15	200	177	81	200	181	83	2	02/08/99	5495	5613
Zinc		mg/kg	5.4	200	162	78	200	168	81	4	02/08/99	5495	5613
Aluminum	*	mg/kg	<10	200	213	107	200	200	100	7	02/08/99	5495	5613
Boron		mg/kg	13	200	189	88	200	197	92	4	02/08/99	5495	5613
Cobalt		mg/kg	4.4	200	156	76	200	164	80	5	02/08/99	5495	5613
Molybdenum		mg/kg	1.5	20	17	78	20	18	83	6	02/08/99	5495	5613
Nickel		mg/kg	27	200	184	79	200	186	80	1	02/08/99	5495	5613
TRPHC		mg/kg	<10.0	250	194	78	250	197	79	1	02/04/99	5423	5533

***LCS's used for spike & spike duplicate .**

118048-54

of

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 27/28

Company Name: BBC International, Inc.
Phone #: (505) 397-6388
Address: (Street, City, Zip) 1324 W. Marland, Hobbs, NM 88240
Fax #: (505) 397-0397
Contact Person: Cliff P. Brunson
Invoice to: (If different from above) Shell E & P Technology Co. ATTN: Wayne Hamilton
Project #:
Project Name: Shell Westgate
Project Location: Hobbs, New Mexico
Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
118048	GSB 12 @ 8-10'	2			✓								2/1/99	
49	GSB 12 18-20'	2			✓								2/1/99	
50	GSB 13 18-20'	2			✓								2/1/99	
51	GSB 14 8-10'	2			✓								2/1/99	
52	GSB 14 18-20'	2			✓								2/1/99	
118053	Trip Blank	2		✓									2/1/99	
54	Field Blank	2		✓									2/1/99	

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021B/602	✓
BTEX 8021B/602	✓
TPH 418.1/TX1005	✓
PAH 8270C	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC-MS Vol. 8260B/624	
GC/MS Semi. Vol. 8270C/625	
PCB's 8082/608	
Pesticides 8081A/608	
BOD, TSS, pH	
See Attached (Full Suite)	
Total Chlorides (300-1)	✓
Total Metals (6010)	✓
Turn Around Time if different from standard	
Hold	

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Shawn E Hall	2/1/99	4:45		2/1/99	4:45
			Received by:	Date:	Time:
	2/2/99	1:05 pm			
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
			Vicki Wadsworth	2-99	1:05pm

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

LAB USE ONLY

Intact Y / N
Headspace Y / N
Temp °
Log-in Review
Carrier #

REMARKS:

Agreed Upon Turnaround

2/19

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff P. Brunson
BBC International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/18/99
Page: #1

Sampling Program: Shell Westgate

Order ID Number: 990200065/66

Sample Description: Shell
Sample location: Hobbs, New Mexico

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
T118241	GSB 15 8-10'	Soil	2/2/99	9:05	2/4/99
T118242	GSB 15 19-21'	Soil	2/2/99	9:55	2/4/99
T118243	TSB 15 13-15'	Soil	2/2/99	11:45	2/4/99
T118244	TSB 15 23-25'	Soil	2/2/99	12:03	2/4/99
T118245	Trip Blank	Water	2/2/99		2/4/99
T118246	Field Blank	Water	2/2/99		2/4/99

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

This report shall not be reproduced except in its entirety, without written approval of the laboratory.

These results represent only the samples received in the laboratory.

This report consists of a total of 11 pages.

Dr. Blair Leftwich
Director

Analytical Results Report

BBC International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/18/99
Page: #2

Field Code: GSB 15 8-10'

Order ID Number: 990200065/66
Sample Number: T118241

Sample Description: Shell
Sample location: Hobbs, New Mexico

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch	Run Batch	Reporting Limit
Benzene		<29	ug/kg	S 8260B		02/05/99	JG		5609	29
Toluene		<29	ug/kg	S 8260B		02/05/99	JG		5609	29
Ethylbenzene		<29	ug/kg	S 8260B		02/05/99	JG		5609	29
m,p-xylene		<29	ug/kg	S 8260B		02/05/99	JG		5609	29
o-xylene		<29	ug/kg	S 8260B		02/05/99	JG		5609	29
Dibromofluoromethane		99	%	S 8260B		02/05/99	JG		5609	72-130
Toluene-d8		104	%	S 8260B		02/05/99	JG		5609	77-127
Surr. 4-Bromofluorobenzene		96	%	S 8260B		02/05/99	JG		5609	72-121
Arsenic		<0.50	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	0.50
Barium		480	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	0.50
Cadmium		0.35	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	0.10
Chromium		4.1	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	0.50
Lead		<0.50	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	0.50
Total Mercury		<0.10	mg/kg	S 7470A	02/08/99	02/09/99	BP	5499	5617	0.10
Selenium		<0.50	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	0.50
Silver		13	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	0.50
Uranium		<5.0	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	5.0
Copper		5.9	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	1.0
Iron		2,200	mg/kg	S 6010B	02/04/99	02/18/99	RR	5500	5627	2.0
Manganese		23	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	1.0
Zinc		10	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	1.0
Aluminum		3,650	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	10
Boron		16	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	10
Cobalt		4.3	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	1.0
Molybdenum		2.5	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	0.50
Nickel		26	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	0.50
TRPHC		<10.0	mg/kg	418.1	02/05/99	02/05/99	MF	5455	5568	10

Analytical Results Report

BBC International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/18/99
Page: #3

Order ID Number: 990200065/66
Field Code: GSB 15 19-21' Sample Number: T118242

Sample Description: Shell
Sample location: Hobbs, New Mexico

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch	Run Batch	Reporting Limit
Benzene		<26	ug/kg	S 8260B		2/5/99	JG		5609	26
Toluene		<26	ug/kg	S 8260B		2/5/99	JG		5609	26
Ethylbenzene		<26	ug/kg	S 8260B		2/5/99	JG		5609	26
m,p-xylene		<26	ug/kg	S 8260B		2/5/99	JG		5609	26
o-xylene		<26	ug/kg	S 8260B		2/5/99	JG		5609	26
Dibromofluoromethane		100	%	S 8260B		2/5/99	JG		5609	72-130
Toluene-d8		104	%	S 8260B		2/5/99	JG		5609	77-127
Surr. 4-Bromofluorobenzene		97	%	S 8260B		2/5/99	JG		5609	72-121
Arsenic		<0.50	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	0.50
Barium		1,020	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	0.50
Cadmium		0.37	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	0.10
Chromium		2.7	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	0.50
Lead		<0.50	mg/kg	S 6010B	02/08/99	02/09/99	RR	5500	5618	0.50
Total Mercury		<0.10	mg/kg	S 7470A	02/04/99	02/08/99	BP	5499	5917	0.10
Selenium		<0.50	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	0.50
Silver		6.3	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	0.50
Uranium		<5.0	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	5.0
Copper		5.5	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	1.0
Iron		694	mg/kg	S 6010B	02/04/99	02/18/99	RR	5500	5627	2.0
Manganese		9.9	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	1.0
Zinc		7.0	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	1.0
Aluminum		990	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	10
Boron		<10	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	10
Cobalt		3.6	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	1.0
Molybdenum		1.6	mg/kg	S 6010B	02/04/99	02/08/99	RR	5500	5618	0.50
Nickel		38	mg/kg	S 6010B	02/08/99	02/09/99	RR	5500	5618	0.50
TRPHC		<10.0	mg/kg	418.1	02/05/99	02/05/99	MF	5455	5568	10

Analytical Results Report

BBC International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/18/99
Page: #4

Field Code: TSB 15 13-15'

Order ID Number: 990200065/66
Sample Number: T118243

Sample Description: Shell
Sample location: Hobbs, New Mexico

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch	Run Batch	Reporting Limit
Benzene		<26	ug/kg	S 8260B		02/05/99	JG		5609	26
Toluene		<26	ug/kg	S 8260B		02/05/99	JG		5609	26
Ethylbenzene		<26	ug/kg	S 8260B		02/05/99	JG		5609	26
m,p-xylene		<26	ug/kg	S 8260B		02/05/99	JG		5609	26
o-xylene		<26	ug/kg	S 8260B		02/05/99	JG		5609	26
Dibromofluoromethane		102	%	S 8260B		02/05/99	JG		5609	72-130
Toluene-d8		102	%	S 8260B		02/05/99	JG		5609	77-127
Surr. 4-Bromofluorobenzene		99	%	S 8260B		02/05/99	JG		5609	72-121
TRPHC		<10.0	mg/kg	418.1	02/05/99	02/05/99	MF	5455	5568	10

Analytical Results Report

BBC International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/18/99
Page: #5

Field Code: TSB 15 23-25'

Order ID Number: 990200065/66
Sample Number: T118244

Sample Description: Shell
Sample location: Hobbs, New Mexico

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch	Run Batch	Reporting Limit
Benzene		<25	ug/kg	S 8260B		02/05/99	JG		5609	25
Toluene		<25	ug/kg	S 8260B		02/05/99	JG		5609	25
Ethylbenzene		<25	ug/kg	S 8260B		02/05/99	JG		5609	25
m,p-xylene		<25	ug/kg	S 8260B		02/05/99	JG		5609	25
o-xylene		<25	ug/kg	S 8260B		02/05/99	JG		5609	25
Dibromofluoromethane		103	%	S 8260B		02/05/99	JG		5609	72-130
Toluene-d8		102	%	S 8260B		02/05/99	JG		5609	77-127
Surr. 4-Bromofluorobenzene		98	%	S 8260B		02/05/99	JG		5609	72-121
TRPHC		<10.0	mg/kg	418.1	02/05/99	02/05/99	MF	5455	5568	10

Analytical Results Report

Cliff P. Brunson
BBC International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/18/99
Page: #6

Field Code: Trip Blank

Order ID Number: 990200065/66
Sample Number: T118245

Sample Description: Shell
Sample location: Hobbs, New Mexico

Parameter	Flag	Result	Units	Method	Date Prepared	Date Analyzed	Analyst	Prep Batch	Run Batch	Limit
Benzene		<1	ug/L	S 8260B		02/04/99	JG		5608	1
Toluene		<1	ug/L	S 8260B		02/04/99	JG		5608	1
Ethylbenzene		<1	ug/L	S 8260B		02/04/99	JG		5608	1
m,p-xylene		<1	ug/L	S 8260B		02/04/99	JG		5608	1
o-xylene		<1	ug/L	S 8260B		02/04/99	JG		5608	1
Dibromofluoromethane		92	%	S 8260B		02/04/99	JG		5608	72-130
Toluene-d8		112	%	S 8260B		02/04/99	JG		5608	77-127
Surr. 4-Bromofluorobenzene		97	%	S 8260B		02/04/99	JG		5608	72-121

Analytical Results Report

Cliff P. Brunson
BBC International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/18/99
Page: #7

Field Code: Field Blank

Order ID Number: 990200065/66
Sample Number: T118246

Sample Description: Shell
Sample location: Hobbs, New Mexico

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch	Run Batch	Reporting Limit
Benzene		<1	ug/L	S 8260B		02/04/99	JG		5608	1
Toluene		<1	ug/L	S 8260B		02/04/99	JG		5608	1
Ethylbenzene		<1	ug/L	S 8260B		02/04/99	JG		5608	1
m,p-xylene		<1	ug/L	S 8260B		02/04/99	JG		5608	1
o-xylene		<1	ug/L	S 8260B		02/04/99	JG		5608	1
Dibromofluoromethane		91	%	S 8260B		02/04/99	JG		5608	72-130
Toluene-d8		112	%	S 8260B		02/04/99	JG		5608	77-127
Surr. 4-Bromofluorobenzene		96	%	S 8260B		02/04/99	JG		5608	72-121

Quality Control Report
Blanks

[redacted]C International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/18/99
Page: #8

Order ID Number: 990200065/66

Sample Description: Shell
Sample location: Hobbs, New Mexico

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch	Run Batch
Benzene		<1	ug/L	1	02/04/99		5608
Toluene		<1	ug/L	1	02/04/99		5608
Ethylbenzene		<1	ug/L	1	02/04/99		5608
m,p-xylene		<1	ug/L	1	02/04/99		5608
o-xylene		<1	ug/L	1	02/04/99		5608
Dibromofluoromethane		91	%	72-130	02/04/99		5608
Toluene-d8		111	%	77-127	02/04/99		5608
Surr. 4-Bromofluorobenzene		98	%	72-121	02/04/99		5608
Benzene		<25	ug/kg	25	02/05/99		5609
Toluene		<25	ug/kg	25	02/05/99		5609
Ethylbenzene		<25	ug/kg	25	02/05/99		5609
m,p-xylene		<25	ug/kg	25	02/05/99		5609
o-xylene		<25	ug/kg	25	02/05/99		5609
[redacted]romofluoromethane		99	%	72-130	02/05/99		5609
Toluene-d8		103	%	77-127	02/05/99		5609
Surr. 4-Bromofluorobenzene		103	%	72-121	02/05/99		5609
Arsenic		<0.50	mg/kg	0.50	02/08/99	5500	5618
Barium		<0.50	mg/kg	0.50	02/08/99	5500	5618
Cadmium		<0.10	mg/kg	0.10	02/08/99	5500	5618
Chromium		<0.50	mg/kg	0.50	02/08/99	5500	5618
Lead		<0.50	mg/kg	0.50	02/08/99	5500	5618
Total Mercury		<0.10	mg/kg	0.10	02/09/99	5499	5617
Selenium		<0.50	mg/kg	0.50	02/08/99	5500	5618
Silver		<0.50	mg/kg	0.50	02/08/99	5500	5618
Uranium		<5.0	mg/kg	5.0	02/08/99	5500	5618
Copper		<1.0	mg/kg	1.0	02/08/99	5500	5618
Iron		<2.0	mg/kg	2.0	02/18/99	5500	5627
Manganese		<1.0	mg/kg	1.0	02/08/99	5500	5618
Zinc		<1.0	mg/kg	1.0	02/08/99	5500	5618
Aluminum		<10	mg/kg	10	02/08/99	5500	5618
Boron		<10	mg/kg	10	02/08/99	5500	5618
Cobalt		<1	mg/kg	1.0	02/08/99	5500	5618
Molybdenum		<0.50	mg/kg	0.50	02/08/99	5500	5618
Nickel		<0.50	mg/kg	0.50	02/08/99	5500	5618
TRPHC		<10	mg/kg	10	02/05/99	5455	5568

Quality Control Report
Continuing Calibration Verification Standard

BBC International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/18/99
Page: #9

Order ID Number: 990200065/66

Sample Description: Shell
Sample location: Hobbs, New Mexico

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	95	95	02/04/99	5608
1,1-Dichloroethene		100	ug/L	85	85	02/04/99	5608
Chloroform		100	ug/L	85	85	02/04/99	5608
1,2-Dichloropropane		100	ug/L	96	96	02/04/99	5608
Toluene		100	ug/L	85	85	02/04/99	5608
Chlorobenzene		100	ug/L	100	100	02/04/99	5608
Ethylbenzene		100	ug/L	99	99	02/04/99	5608
Surr. Dibromofluoromethane		100	%	91	91	02/04/99	5608
Surr. Toluene-d8		100	%	111	111	02/04/99	5608
Surr. 4-Bromofluorobenzene		100	%	98	98	02/04/99	5608
Vinyl chloride		100	ug/L	114	114	02/05/99	5609
1,1-Dichloroethene		100	ug/L	109	109	02/05/99	5609
Chloroform		100	ug/L	107	107	02/05/99	5609
1,2-Dichloropropane		100	ug/L	108	108	02/05/99	5609
Toluene		100	ug/L	104	104	02/05/99	5609
Chlorobenzene		100	ug/L	103	103	02/05/99	5609
Ethylbenzene		100	ug/L	104	104	02/05/99	5609
Surr. Dibromofluoromethane		100	%	99	99	02/05/99	5609
Surr. Toluene-d8		100	%	103	103	02/05/99	5609
Surr. 4-Bromofluorobenzene		100	%	103	103	02/05/99	5609
Arsenic		1.0	mg/L	0.97	97	02/08/99	5618
Barium		1.0	mg/L	0.99	99	02/08/99	5618
Cadmium		1.0	mg/L	1.0	100	02/08/99	5618
Chromium		1.0	mg/L	1.0	100	02/08/99	5618
Lead		1.0	mg/L	1.0	100	02/08/99	5618
Total Mercury		5.0	mg/L	4.5	90	02/09/99	5617
Selenium		1.0	mg/L	1.0	100	02/08/99	5618
Silver		0.20	mg/L	0.21	105	02/08/99	5618
Uranium		1.0	mg/L	0.97	97	02/08/99	5618
Copper		1.0	mg/L	1.0	100	02/08/99	5618

Quality Control Report
Continuing Calibration Verification Standard

BBC International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/18/99
Page: #10

Order ID Number: 990200065/66

Sample Description: Shell
Sample location: Hobbs, New Mexico

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Iron		1.0	mg/L	0.96	96	02/08/99	5627
Manganese		1.0	mg/L	0.97	97	02/08/99	5618
Zinc		1.0	mg/L	0.98	98	02/08/99	5618
Aluminum		1.0	mg/L	0.97	97	02/08/99	5618
Boron		1.0	mg/L	0.96	96	02/08/99	5618
Cobalt		1.0	mg/L	1.0	100	02/08/99	5618
Molybdenum		1.0	mg/L	0.96	96	02/08/99	5618
Nickel		1.0	mg/L	0.97	97	02/08/99	5618
TRPHC		100	mg/L	104	104	02/05/99	5568

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

BBC International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/18/99
Page: #11

Order ID Number: 990200065/66

Sample Description: Shell
Sample location: Hobbs, New Mexico

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Run Batch #
1,1-Dichloroethene	*	ug/L	<1	100	75	75	100	79	79	5	02/04/99	5608
Benzene	*	ug/L	<1	100	80	80	100	86	86	7	02/04/99	5608
Trichloroethene	*	ug/L	<1	100	73	73	100	79	79	8	02/04/99	5608
Toluene	*	ug/L	<1	100	81	81	100	86	86	6	02/04/99	5608
Chlorobenzene	*	ug/L	<1	100	98	98	100	106	106	8	02/04/99	5608
1,1-Dichloroethene		ug/kg	<29	100	102	102	100	102	102	0	02/05/99	5609
Benzene		ug/kg	<29	100	111	111	100	111	111	0	02/05/99	5609
Trichloroethene		ug/kg	<29	100	111	111	100	111	111	0	02/05/99	5609
Toluene		ug/kg	<29	100	110	110	100	111	111	1	02/05/99	5609
Chlorobenzene		ug/kg	<29	100	109	109	100	111	111	2	02/05/99	5609
Arsenic		mg/kg	<0.50	200	167	84	200	177	89	6	02/08/99	5618
Barium	*	mg/kg	<0.50	200	195	98	200	199	100	2	02/08/99	5618
Cadmium		mg/kg	0.35	200	173	87	200	173	87	0	02/08/99	5618
Chromium		mg/kg	4.1	200	183	92	200	184	92	1	02/08/99	5618
Lead		mg/kg	<0.50	200	170	85	200	171	86	1	02/08/99	5618
Total Mercury		mg/kg	<0.10	2.5	2.1	84	2.5	2.2	88	5	02/09/99	5617
Selenium		mg/kg	<0.50	200	181	91	200	184	92	2	02/08/99	5618
Silver		mg/kg	13	40	48	120	40	48	120	0	02/08/99	5618
Uranium		mg/kg	<5.0	200	181	91	200	179	90	1	02/08/99	5618
Copper		mg/kg	5.9	200	197	99	200	196	98	1	02/08/99	5618
Iron		mg/kg	2200	200	2421	111	200	2436	118	1	02/18/99	5627
Manganese		mg/kg	23	200	195	98	200	198	99	2	02/08/99	5618
Zinc		mg/kg	10	200	179	90	200	177	89	1	02/08/99	5618
Aluminum	*	mg/kg	<10	200	220	110	200	214	107	3	02/08/99	5618
Boron		mg/kg	16	200	202	101	200	198	99	2	02/08/99	5618
Cobalt		mg/kg	4.3	200	172	86	200	174	87	1	02/08/99	5618
Molybdenum		mg/kg	2.5	20	17	85	20	18	90	6	02/08/99	5618
Nickel		mg/kg	26	200	201	101	200	198	99	2	02/08/99	5618
TRPHC		mg/kg	<10.0	250	230	92	250	248	99	8	02/08/99	5568

*LCS's used for spike and spike duplicate.

118241-4

P ___ of ___

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 65/66

Company Name: BBC International, Inc. Phone #: (505) 397-6388

Address: (Street, City, Zip) 1324 W. Marland, Hobbs, NM 88240 Fax #: (505) 397-0397

Contact Person: Cliff P. Brunson

Invoice to: (If different from above) Shell E & P Technology Co. ATTN: Wayne Hamilton

Project #: Project Name: Shell Westgate

Project Location: Hobbs, New Mexico Sampler Signature: Shawn E. Hall

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
118241	GSB 15 8-10'	2	40z VOA		✓								2/2/99	9:05am
42	GSB 15 19-21' ~~18-20~~	2	40z VOA		✓								2/2/99	9:55am
43	TSB 15 13-15'	2	40z VOA		✓								2/2/99	11:45a
44	TSB 15 23-25'	2	40z VOA		✓								2/2/99	12:03p
45	Trip Blank	2		✓										
46	Field Blank	2		✓									2/2/99	

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021B/602	BTEX ~~8021B/602~~ 8260	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	See Attached (Full Suite)	Total Chlorides (300-1)	Total Metals (6010)	Turn Around Time if different from standard	Hold
	✓	✓															✓		
	✓	✓															✓		
	✓	✓																	
	✓	✓																	
	✓	✓																	
	✓																		
	✓																		

Relinquished by: Shawn E. Hall Date: 2/2/99 Time: 5:15

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received at Laboratory by: Vicki Wyndham 2-4-99 9:45am

LAB USE ONLY

Intact (Y) N

Headspace Y / N

Temp 3 °

Log-in Review

REMARKS:

Agreed Upon Turnaround

Carrier # Bus 901984 6781

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/23/99
Page: # 1

Project Name: Shell Westgate
Project Location: Hobbs, NM
Order ID Number: 990200075/76

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
118283	TSB 14 40-42'	Soil	02/02/99	4:40 p.m.	02/04/99
118284	TSB 14 63-65'	Soil	02/03/99	10:24 p.m.	02/04/99
118285	Field Blank	Water	02/03/99		02/04/99
118286	Trip Blank	Water	02/03/99		02/04/99

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

This report shall not be reproduced except in its entirety, without written approval of the laboratory.

These results represent only the samples received in the laboratory.

This report consists of a total of 31 pages.

*Volatile 118283 ERL - due to matrix difficulties.

*Semi-volatile 118283 ERL - due to matrix difficulties.

Dr. Blair Leftwich
Director

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/23/99
Page # 2

Sample Number: 118283

Order ID Number: 990200075/76
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB 14 40-42'

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein	*ERL	<560	ug/kg	S-8260B		02/10/99	JG		5621	560
Acrylonitrile	*ERL	<560	ug/kg	S-8260B		02/10/99	JG		5621	560
Benzene	*ERL	<112	ug/kg	S-8260B		02/10/99	JG		5621	112
Carbon tetrachloride	*ERL	<112	ug/kg	S-8260B		02/10/99	JG		5621	112
Chlorobenzene	*ERL	<112	ug/kg	S-8260B		02/10/99	JG		5621	112
1,2-dichloroethane	*ERL	<112	ug/kg	S-8260B		02/10/99	JG		5621	112
1,1,2,2-tetrachloroethane	*ERL	<112	ug/kg	S-8260B		02/10/99	JG		5621	112
1,1,1-trichloroethane	*ERL	<112	ug/kg	S-8260B		02/10/99	JG		5621	112
1,1,2-trichloroethane	*ERL	<112	ug/kg	S-8260B		02/10/99	JG		5621	112
1,1,2-trichloroethylene	*ERL	<112	ug/kg	S-8260B		02/10/99	JG		5621	112
Chloroform	*ERL	<112	ug/kg	S-8260B		02/10/99	JG		5621	112
Dichlorobenzene	*ERL	<224	ug/kg	S-8260B		02/10/99	JG		5621	224
1,1-dichloroethylene	*ERL	<112	ug/kg	S-8260B		02/10/99	JG		5621	112
Dichloropropenes	*ERL	<112	ug/kg	S-8260B		02/10/99	JG		5621	112
Ethylbenzene		2,000	ug/kg	S-8260B		02/10/99	JG		5621	112
Bromodichloromethane	*ERL	<112	ug/kg	S-8260B		02/10/99	JG		5621	112
Bromomethane	*ERL	<560	ug/kg	S-8260B		02/10/99	JG		5621	560
Chloromethane	*ERL	<112	ug/kg	S-8260B		02/10/99	JG		5621	112
Dichlorodifluoromethane	*ERL	<112	ug/kg	S-8260B		02/10/99	JG		5621	112
Dichloromethane	*ERL	<560	ug/kg	S-8260B		02/10/99	JG		5621	560
Trichlorofluoromethane	*ERL	<112	ug/kg	S-8260B		02/10/99	JG		5621	112
Tetrachloroethylene	*ERL	<112	ug/kg	S-8260B		02/10/99	JG		5621	112
Toluene	*ERL	<112	ug/kg	S-8260B		02/10/99	JG		5621	112
Trichloroethylene	*ERL	<112	ug/kg	S-8260B		02/10/99	JG		5621	112
Vinyl chloride	*ERL	<224	ug/kg	S-8260B		02/10/99	JG		5621	224
m,p-xylene		12,000	ug/kg	S-8260B		02/10/99	JG		5621	112
o-xylene	*ERL	<112	ug/kg	S-8260B		02/10/99	JG		5621	112
1,1-dichloroethane	*ERL	<112	ug/kg	S-8260B		02/10/99	JG		5621	112
Ethylene dibromide	*ERL	<112	ug/kg	S-8260B		02/10/99	JG		5621	112
cis-1,2-dichlorethylene	*ERL	<112	ug/kg	S-8260B		02/10/99	JG		5621	112
trans-1,2-dichloroethylene	*ERL	<112	ug/kg	S-8260B		02/10/99	JG		5621	112
Methylene chloride	*ERL	<560	ug/kg	S-8260B		02/10/99	JG		5621	560
Surr. Dibromofluoromethane		100	%	S-8260B		02/10/99	JG		5621	72-130
Surr. Toluene-d8		110	%	S-8260B		02/10/99	JG		5621	77-127
Surr. 4-Bromofluorobenzene		106	%	S-8260B		02/10/99	JG		5621	72-131

*ERL-elevated reporting limit due to matrix difficulties.

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/23/99
Page # 3

Sample Number: 118283

Order ID Number: 990200075/76
Project Name: Shell Westgate
Project Location: Hobbs, NM
Field Code: TSB 14 40-42'

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	*ERL	<12.5	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	12.5
Hexachlorobenzene	*ERL	<1.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
Pentachlorobenzene	*ERL	<1.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
1,2,4,5-tetrachlorobenzene	*ERL	<1.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
Hexachloroethane	*ERL	<1.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
2,4-dichlorphenol	*ERL	<6.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	6.25
2,4,5-trichlorophenol	*ERL	<6.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	6.25
2,4,6-trichlorophenol	*ERL	<6.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	6.25
bis (2-chloroethly) ether	*ERL	<6.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	6.25
bis (2-chloroisopropyl) ether	*ERL	<6.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	6.25
bis (chloromethyl) ether	*ERL	<6.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	6.25
3,3-dichlorobenzidine	*ERL	<6.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	6.25
2,4-dinitrotoluene	*ERL	<1.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
Diphenylhydrazine	*ERL	<6.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	6.25
Hexachlorobutadiene	*ERL	<1.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
Hexachlorocyclopentadiene	*ERL	<1.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
Isophorone	*ERL	<6.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	6.25
Nitrobenzene	*ERL	<1.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
2,4-dinitro-o-cresol	*ERL	<6.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	6.25
2,4-dinitrophenols	*ERL	<6.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	6.25
n-nitrosodiethylamine	*ERL	<1.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
N-nitrosodimethylamine	*ERL	<1.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
N-nitrosodibutylamine	*ERL	<6.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	6.25
N-nitrosodiphenylamine	*ERL	<1.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
N-nitrosopyrrolidine	*ERL	<1.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
Pentachlorophenol	*ERL	<6.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	6.25
Dibutyl phthalate	*ERL	<1.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
di-2-ethylhexyl phthalate	*ERL	<1.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
Diethyl phthalate	*ERL	<1.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
Dimethyl phthalate	*ERL	<1.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
Anthracene	*ERL	<1.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
3,4-Benzofluoranthene	*ERL	<1.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
Benzo(k)fluoranthene	*ERL	<1.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
Fluoranthene	*ERL	<1.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
Fluorene	*ERL	<1.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25

*ERL-elevated reporting limit due to matrix difficulties.

Order ID Number: 990200075/76
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 2/23/99
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Sample Number: 118283

Field Code: TSB 14 40-42'

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene		1.94	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
Pyrene	*ERL	<1.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
Naphthalene		3.6	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
1-methylnaphthalene		9.6	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
2-methylnaphthalene		7.9	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
Benzo-a-pyrene	*ERL	<1.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
Phenol	*ERL	<1.25	mg/kg	8270C	02/09/99	02/09/99	MA	5549	5675	1.25
Surr. 2-Fluorophenol		58	%	8270C	02/09/99	02/09/99	MA	5549	5675	35-111
Surr. Phenol-d6		54	%	8270C	02/09/99	02/09/99	MA	5549	5675	44-116
Surr. Nitrobenzene-d5		75	%	8270C	02/09/99	02/09/99	MA	5549	5675	45-110
Surr. 2-Fluorobiphenyl		89	%	8270C	02/09/99	02/09/99	MA	5549	5675	50-110
Surr. 2,4,6-Tribromophenol		66	%	8270C	02/09/99	02/09/99	MA	5549	5675	66-123
Surr. Terphenyl-d14		108	%	8270C	02/09/99	02/09/99	MA	5549	5675	68-108

*ERL - elevated reporting limit due to matrix difficulties.

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Date: 2/23/99
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Sample Number: 118283

Order ID Number: 990200075/76
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB- 14 40-42'

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin		<0.02	mg/kg	8081	02/10/99	02/13/99	SH			0.02
Chlordane		<0.10	mg/kg	8081	02/10/99	02/13/99	SH			0.1
DDT		<0.03	mg/kg	8081	02/10/99	02/13/99	SH			0.03
Dieldrin		<0.02	mg/kg	8081	02/10/99	02/13/99	SH			0.02
Endosulfan		<0.03	mg/kg	8081	02/10/99	02/13/99	SH			0.03
Endrin		<0.05	mg/kg	8081	02/10/99	02/13/99	SH			0.05
Heptachlor		<0.03	mg/kg	8081	02/10/99	02/13/99	SH			0.03
PCB's		<0.1	mg/kg	8082	02/05/99	02/05/99	CS	5514	5636	0.1
Arsenic		<0.50	mg/kg	6010B	02/04/99	02/08/99	RR	5503	5624	0.50
Barium		29	mg/kg	6010B	02/04/99	02/08/99	RR	5503	5624	0.50
Cadmium		0.25	mg/kg	6010B	02/04/99	02/08/99	RR	5503	5624	0.10
Chromium		4.0	mg/kg	6010B	02/04/99	02/08/99	RR	5503	5624	0.50
Lead		0.76	mg/kg	6010B	02/04/99	02/08/99	RR	5503	5624	0.50
Total Mercury		<0.10	mg/kg	7471A	02/08/99	02/09/99	BP	5502	5623	0.10
Selenium		<0.50	mg/kg	6010B	02/04/99	02/08/99	RR	5503	5624	0.50
Silver		12	mg/kg	6010B	02/04/99	02/08/99	RR	5503	5624	0.50
Uranium		<5.0	mg/kg	6010B	02/04/99	02/08/99	RR	5503	5624	5.0
Copper		2.7	mg/kg	6010B	02/04/99	02/08/99	RR	5503	5624	1.0
Iron		2,510	mg/kg	6010B	02/17/99	02/18/99	RR	5511	5633	1.0
Manganese		20	mg/kg	6010B	02/04/99	02/08/99	RR	5503	5624	1.0
Zinc		5.6	mg/kg	6010B	02/04/99	02/08/99	RR	5503	5624	1.0
Aluminum		1,770	mg/kg	6010B	02/04/99	02/08/99	RR	5503	5624	10
Boron		<10	mg/kg	6010B	02/04/99	02/08/99	RR	5503	5624	10
Cobalt		2.3	mg/kg	6010B	02/04/99	02/08/99	RR	5503	5624	1.0
Molybdenum		1.1	mg/kg	6010B	02/04/99	02/08/99	RR	5503	5624	0.50
Nickel		19	mg/kg	6010B	02/04/99	02/08/99	RR	5503	5624	0.50
Cyanide		<0.20	mg/kg	SM 4500CN C,E	02/11/99	02/11/99	MD	5504	5625	0.20
Fluoride		1.3	mg/kg	300.0	02/04/99	02/04/99	JS	5512	5634	0.1
Nitrate		<1.0	mg/kg	300.0	02/04/99	02/04/99	JS	5512	5634	1.0
Chloride		18	mg/kg	300.0	02/04/99	02/04/99	JS	5512	5634	0.5
Sulfate		4.1	mg/kg	300.0	02/04/99	02/04/99	JS	5512	5634	0.5
TDS		120	mg/kg	160.1	02/04/99	02/04/99	SA	5505	5626	10
pH		9.0	s.u.	150.1	02/04/99	02/04/99	RS	5515	5637	---
TRPHC		8,240	mg/kg	418.1	02/05/99	02/05/99	MF	5455	5568	10
Total Phenol		2.49	mg/kg	SM 5530 A,D	02/04/99	02/04/99	MD	5513	5635	1.75
Total Radium		1.23	pCi/gm	901.1M	02/06/99	02/06/99	MD			0.26

Analytical Results Report

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Date: 2/23/99
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Sample Number: 118284

Order ID Number: 990200075/76
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB 14 63-65'

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<130	ug/kg	S-8260B		2/8/99	JG		5620	130
Acrylonitrile		<130	ug/kg	S-8260B		2/8/99	JG		5620	130
Benzene		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
Carbon tetrachloride		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
Chlorobenzene		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
1,2-dichloroethane		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
1,1,2,2-tetrachloroethane		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
1,1,1-trichloroethane		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
1,1,2-trichloroethane		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
1,1,2-trichloroethylene		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
Chloroform		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
Dichlorobenzene		<52	ug/kg	S-8260B		2/8/99	JG		5620	52
1,1-dichloroethylene		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
Dichloropropenes		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
Ethylbenzene		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
Bromodichloromethane		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
Bromomethane		<130	ug/kg	S-8260B		2/8/99	JG		5620	130
Chloromethane		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
Dichlorodifluoromethane		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
Dichloromethane		<130	ug/kg	S-8260B		2/8/99	JG		5620	130
Trichlorofluoromethane		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
Tetrachloroethylene		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
Toluene		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
Trichloroethylene		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
Vinyl chloride		<52	ug/kg	S-8260B		2/8/99	JG		5620	52
m,p-xylene		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
o-xylene		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
1,1-dichloroethane		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
Ethylene dibromide		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
cis-1,2-dichlorethylene		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
trans-1,2-dichloroethylene		<26	ug/kg	S-8260B		2/8/99	JG		5620	26
Methylene chloride		<130	ug/kg	S-8260B		2/8/99	JG		5620	130
Surr. Dibromofluoromethane		101	%	S-8260B		2/8/99	JG		5620	72-130
Surr. Toluene-d8		101	%	S-8260B		2/8/99	JG		5620	77-127
Surr. 4-Bromofluorobenzene		99	%	S-8260B		2/8/99	JG		5620	72-131

Order ID Number: 990200075/76
Field Code: TSB 14 63-65' Sample Number: 118284 Page #7

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
Hexachloroethane		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	1.25
2,4,5-trichlorophenol	*	<1.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	1.25
bis (2-chloroethly) ether		<1.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
Isophorone		<1.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	1.25
Nitrobenzene		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
Anthracene		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
Fluoranthene		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
Fluorene		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
Phenanthrene		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
Pyrene		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
Naphthalene		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
Phenol		<0.25	mg/kg	8270C	2/4/99	2/8/99	MA	5501	5622	0.25
Surr. 2-Fluorophenol		78	%	8270C	2/4/99	2/8/99	MA	5501	5622	35-111
Surr. Phenol-d6		84	%	8270C	2/4/99	2/8/99	MA	5501	5622	44-116
Surr. Nitrobenzene-d5		83	%	8270C	2/4/99	2/8/99	MA	5501	5622	45-110
Surr. 2-Fluorobiphenyl		87	%	8270C	2/4/99	2/8/99	MA	5501	5622	50-110
Surr. 2,4,6-Tribromophenol		73	%	8270C	2/4/99	2/8/99	MA	5501	5622	66-123
Surr. Terphenyl-d14		95	%	8270C	2/4/99	2/8/99	MA	5501	5622	68-108

Date: 2/23/99

Order ID Number: 990200075/76 Page #8

Project Name: Shell Westgate

Project Location: Hobbs, NM Sample Number: 118284

Field Code: TSB 14 63-65'

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin		<0.02	mg/kg	8081	2/10/99	2/13/99	SH			0.02
Chlordane		<0.10	mg/kg	8081	2/10/99	2/13/99	SH			0.1
DDT		<0.03	mg/kg	8081	2/10/99	2/13/99	SH			0.03
Dieldrin		<0.02	mg/kg	8081	2/10/99	2/13/99	SH			0.02
Endosulfan		<0.03	mg/kg	8081	2/10/99	2/13/99	SH			0.03
Endrin		<0.05	mg/kg	8081	2/10/99	2/13/99	SH			0.05
Heptachlor		<0.03	mg/kg	8081	2/10/99	2/13/99	SH			0.03
PCB's		<0.1	mg/kg	8082	2/5/99	2/5/99	CS	5514	5636	0.1
Arsenic		<0.50	mg/kg	6010B	2/4/99	2/8/99	RR	5503	5624	0.50
Barium		8.3	mg/kg	6010B	2/4/99	2/8/99	RR	5503	5624	0.50
Cadmium		0.24	mg/kg	6010B	2/4/99	2/8/99	RR	5503	5624	0.10
Chromium		4.3	mg/kg	6010B	2/4/99	2/8/99	RR	5503	5624	0.50
Lead		0.81	mg/kg	6010B	2/4/99	2/8/99	RR	5503	5624	0.50
Total Mercury		<0.10	mg/kg	7471A	2/8/99	2/9/99	BP	5502	5623	0.10
Selenium		<0.50	mg/kg	6010B	2/4/99	2/8/99	RR	5503	5624	0.50
Silver		8.6	mg/kg	6010B	2/4/99	2/8/99	RR	5503	5624	0.50
Uranium		<5.0	mg/kg	6010B	2/4/99	2/8/99	RR	5503	5624	5.0
Copper		1.9	mg/kg	6010B	2/4/99	2/8/99	RR	5503	5624	1.0
Iron		2,200	mg/kg	6010B	2/17/99	2/18/99	RR	5511	5633	1.0
Manganese		17	mg/kg	6010B	2/4/99	2/8/99	RR	5503	5624	1.0
Zinc		6.1	mg/kg	6010B	2/4/99	2/8/99	RR	5503	5624	1.0
Aluminum		1,650	mg/kg	6010B	2/4/99	2/8/99	RR	5503	5624	10
Boron		<10	mg/kg	6010B	2/4/99	2/8/99	RR	5503	5624	10
Cobalt		2.1	mg/kg	6010B	2/4/99	2/8/99	RR	5503	5624	1.0
Molybdenum		1.0	mg/kg	6010B	2/4/99	2/8/99	RR	5503	5624	0.50
Nickel		16	mg/kg	6010B	2/4/99	2/8/99	RR	5503	5624	0.50
Cyanide		<0.20	mg/kg	SM 4500CN C,E	2/11/99	2/11/99	MD	5504	5625	0.20
Fluoride		1.3	mg/kg	300.0	2/4/99	2/4/99	JS	5512	5634	0.1
Nitrate		<1.0	mg/kg	300.0	2/4/99	2/4/99	JS	5512	5634	1.0
Chloride		24	mg/kg	300.0	2/4/99	2/4/99	JS	5512	5634	0.5
Sulfate		6.7	mg/kg	300.0	2/4/99	2/4/99	JS	5512	5634	0.5
TDS		120	mg/kg	160.1	2/4/99	2/4/99	SA	5505	5626	10
pH		8.6	s.u.	150.1	2/4/99	2/4/99	RS	5515	5637	---
TRPHC		29.0	mg/kg	418.1	2/5/99	2/5/99	MF	5455	5568	10
Total Phenol		12.4	mg/kg	SM 5530 A,D	2/4/99	2/4/99	MD	5513	5635	1.75
Total Radium		<1.54	pCi/gm	901.1M	2/4/99	2/6/99	MD			1.54

Analytical Results Report

[redacted]f P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/23/99
Page: #9

Sample Number: 118285

Order ID Number: 990200075/76
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: Field Blank

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		2/4/99	JG		5619	5
Acrylonitrile		<5	ug/L	S-8260B		2/4/99	JG		5619	5
Benzene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Carbon tetrachloride		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Chlorobenzene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
1,2-dichloroethane		<1	ug/L	S-8260B		2/4/99	JG		5619	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		2/4/99	JG		5619	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		2/4/99	JG		5619	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		2/4/99	JG		5619	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Chloroform		<1	ug/L	S-8260B		2/4/99	JG		5619	1
[redacted]hlorobenzene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
1,1-dichloroethylene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Dichloropropenes		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Ethylbenzene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Bromodichloromethane		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Bromomethane		<5	ug/L	S-8260B		2/4/99	JG		5619	5
Chloromethane		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Dichloromethane		<5	ug/L	S-8260B		2/4/99	JG		5619	5
Trichlorofluorometane		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Tetrachloroethylene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Toluene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Trichloroethylene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Vinyl chloride		<2	ug/L	S-8260B		2/4/99	JG		5619	2
m,p-xylene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
o-xylene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
1,1-dichloroethane		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Ethylene dibromide		<1	ug/L	S-8260B		2/4/99	JG		5619	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Methylene chloride		<5	ug/L	S-8260B		2/4/99	JG		5619	5
Surr. Dibromofluoromethane		92	%	S-8260B		2/4/99	JG		5619	72-130
Surr. Toluene-d8		112	%	S-8260B		2/4/99	JG		5619	77-127
Surr. 4-Bromofluorobenzene		96	%	S-8260B		2/4/99	JG		5619	72-131

Analytical Results Report

[redacted]f P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/23/99
Page: #10

Sample Number: 118286

Order ID Number: 990200075/76
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: Trip Blank

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		2/4/99	JG		5619	5
Acrylonitrile		<5	ug/L	S-8260B		2/4/99	JG		5619	5
Benzene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Carbon tetrachloride		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Chlorobenzene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
1,2-dichloroethane		<1	ug/L	S-8260B		2/4/99	JG		5619	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		2/4/99	JG		5619	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		2/4/99	JG		5619	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		2/4/99	JG		5619	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
[redacted]loroform		<1	ug/L	S-8260B		2/4/99	JG		5619	1
[redacted]nlorobenzene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
1,1-dichloroethylene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Dichloropropenes		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Ethylbenzene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Bromodichloromethane		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Bromomethane		<5	ug/L	S-8260B		2/4/99	JG		5619	5
Chloromethane		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Dichloromethane		<5	ug/L	S-8260B		2/4/99	JG		5619	5
Trichlorofluorometane		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Tetrachloroethylene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Toluene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Trichloroethylene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Vinyl chloride		<2	ug/L	S-8260B		2/4/99	JG		5619	2
m,p-xylene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
o-xylene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
1,1-dichloroethane		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Ethylene dibromide		<1	ug/L	S-8260B		2/4/99	JG		5619	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		2/4/99	JG		5619	1
Methylene chloride		<5	ug/L	S-8260B		2/4/99	JG		5619	5
Surr. Dibromofluoromethane		91	%	S-8260B		2/4/99	JG		5619	72-130
Surr. Toluene-d8		111	%	S-8260B		2/4/99	JG		5619	77-127
Surr. 4-Bromofluorobenzene		98	%	S-8260B		2/4/99	JG		5619	72-131

Quality Control Report
Blanks

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/23/99
Page #11

Order ID Number: 990200075/76
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Result	Units	Limit	Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	2/4/99		5619
Acrylonitrile		<5	ug/L	5	2/4/99		5619
Benzene		<1	ug/L	1	2/4/99		5619
Carbon tetrachloride		<1	ug/L	1	2/4/99		5619
Chlorobenzene		<1	ug/L	1	2/4/99		5619
1,2-dichloroethane		<1	ug/L	1	2/4/99		5619
1,1,2,2-tetrachloroethane		<1	ug/L	1	2/4/99		5619
1,1,1-trichloroethane		<1	ug/L	1	2/4/99		5619
1,1,2-trichloroethane		<1	ug/L	1	2/4/99		5619
1,1,2-trichloroethylene		<1	ug/L	1	2/4/99		5619
Chloroform		<1	ug/L	1	2/4/99		5619
Dichlorobenzene		<2	ug/L	2	2/4/99		5619
1,1-dichloroethylene		<1	ug/L	1	2/4/99		5619
Dichloropropenes		<1	ug/L	1	2/4/99		5619
Ethylbenzene		<1	ug/L	1	2/4/99		5619
Bromodichloromethane		<1	ug/L	1	2/4/99		5619
Bromomethane		<5	ug/L	5	2/4/99		5619
Chloromethane		<1	ug/L	1	2/4/99		5619
Dichlorodifluoromethane		<1	ug/L	1	2/4/99		5619
Dichloromethane		<5	ug/L	5	2/4/99		5619
Trichlorofluoromethane		<1	ug/L	1	2/4/99		5619
Tetrachloroethylene		<1	ug/L	1	2/4/99		5619
Toluene		<1	ug/L	1	2/4/99		5619
Trichloroethylene		<1	ug/L	1	2/4/99		5619
Vinyl chloride		<2	ug/L	2	2/4/99		5619
m,p-xylene		<1	ug/L	1	2/4/99		5619
o-xylene		<1	ug/L	1	2/4/99		5619
1,1-dichloroethane		<1	ug/L	1	2/4/99		5619
Ethylene dibromide		<1	ug/L	1	2/4/99		5619
cis-1,2-dichlorethylene		<1	ug/L	1	2/4/99		5619
trans-1,2-dichloroethylene		<1	ug/L	1	2/4/99		5619
Methylene chloride		<5	ug/L	5	2/4/99		5619
Surr. Dibromofluoromethane		91	%	72-130	2/4/99		5619
Surr. Toluene-d8		111	%	77-127	2/4/99		5619
Surr. 4-Bromofluorobenzene		98	%	72-131	2/4/99		5619

Order ID Number: 990200075/76 Date: 2/23/99
Project Name: Shell Westgate Page #12
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<125	ug/kg	125	2/8/99		5620
Acrylonitrile		<125	ug/kg	125	2/8/99		5620
Benzene		<25	ug/kg	25	2/8/99		5620
Carbon tetrachloride		<25	ug/kg	25	2/8/99		5620
Chlorobenzene		<25	ug/kg	25	2/8/99		5620
1,2-dichloroethane		<25	ug/kg	25	2/8/99		5620
1,1,2,2-tetrachloroethane		<25	ug/kg	25	2/8/99		5620
1,1,1-trichloroethane		<25	ug/kg	25	2/8/99		5620
1,1,2-trichloroethane		<25	ug/kg	25	2/8/99		5620
1,1,2-trichloroethylene		<25	ug/kg	25	2/8/99		5620
Chloroform		<25	ug/kg	25	2/8/99		5620
Dichlorobenzene		<50	ug/kg	50	2/8/99		5620
1,1-dichloroethylene		<25	ug/kg	25	2/8/99		5620
Dichloropropenes		<25	ug/kg	25	2/8/99		5620
Ethylbenzene		<25	ug/kg	25	2/8/99		5620
Bromodichloromethane		<25	ug/kg	25	2/8/99		5620
Bromomethane		<125	ug/kg	125	2/8/99		5620
Chloromethane		<25	ug/kg	25	2/8/99		5620
Dichlorodifluoromethane		<25	ug/kg	25	2/8/99		5620
Dichloromethane		<125	ug/kg	125	2/8/99		5620
Trichlorofluoromethane		<25	ug/kg	25	2/8/99		5620
Tetrachloroethylene		<25	ug/kg	25	2/8/99		5620
Toluene		<25	ug/kg	25	2/8/99		5620
Trichloroethylene		<25	ug/kg	25	2/8/99		5620
Vinyl chloride		<50	ug/kg	50	2/8/99		5620
m,p-xylene		<25	ug/kg	25	2/8/99		5620
o-xylene		<25	ug/kg	25	2/8/99		5620
1,1-dichloroethane		<25	ug/kg	25	2/8/99		5620
Ethylene dibromide		<25	ug/kg	25	2/8/99		5620
cis-1,2-dichlorethylene		<25	ug/kg	25	2/8/99		5620
trans-1,2-dichloroethylene		<25	ug/kg	25	2/8/99		5620
Methylene chloride		<125	ug/kg	125	2/8/99		5620
Surr. Dibromofluoromethane		99	%	72-130	2/8/99		5620
Surr. Toluene-d8		104	%	77-127	2/8/99		5620
Surr. 4-Bromofluorobenzene		99	%	72-131	2/8/99		5620

Order ID Number: 990200075/76 Date: 2/23/99

[redacted]ect Name: Shell Westgate Page #13

[redacted]ject Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<125	ug/kg	125	2/10/99		5621
Acrylonitrile		<125	ug/kg	125	2/10/99		5621
Benzene		<25	ug/kg	25	2/10/99		5621
Carbon tetrachloride		<25	ug/kg	25	2/10/99		5621
Chlorobenzene		<25	ug/kg	25	2/10/99		5621
1,2-dichloroethane		<25	ug/kg	25	2/10/99		5621
1,1,2,2-tetrachloroethane		<25	ug/kg	25	2/10/99		5621
1,1,1-trichloroethane		<25	ug/kg	25	2/10/99		5621
1,1,2-trichloroethane		<25	ug/kg	25	2/10/99		5621
1,1,2-trichloroethylene		<25	ug/kg	25	2/10/99		5621
Chloroform		<25	ug/kg	25	2/10/99		5621
Dichlorobenzene		<50	ug/kg	50	2/10/99		5621
1,1-dichloroethylene		<25	ug/kg	25	2/10/99		5621
Dichloropropenes		<25	ug/kg	25	2/10/99		5621
Ethylbenzene		<25	ug/kg	25	2/10/99		5621
Bromodichloromethane		<25	ug/kg	25	2/10/99		5621
Bromomethane		<125	ug/kg	125	2/10/99		5621
Chloromethane		<25	ug/kg	25	2/10/99		5621
Dichlorodifluoromethane		<25	ug/kg	25	2/10/99		5621
[redacted]oromethane		<125	ug/kg	125	2/10/99		5621
[redacted]chlorofluoromethane		<25	ug/kg	25	2/10/99		5621
Tetrachloroethylene		<25	ug/kg	25	2/10/99		5621
Toluene		<25	ug/kg	25	2/10/99		5621
Trichloroethylene		<25	ug/kg	25	2/10/99		5621
Vinyl chloride		<50	ug/kg	50	2/10/99		5621
m,p-xylene		<25	ug/kg	25	2/10/99		5621
o-xylene		<25	ug/kg	25	2/10/99		5621
1,1-dichloroethane		<25	ug/kg	25	2/10/99		5621
Ethylene dibromide		<25	ug/kg	25	2/10/99		5621
cis-1,2-dichlorethylene		<25	ug/kg	25	2/10/99		5621
trans-1,2-dichloroethylene		<25	ug/kg	25	2/10/99		5621
Methylene chloride		<125	ug/kg	125	2/10/99		5621
Surr. Dibromofluoromethane		94	%	72-130	2/10/99		5621
Surr. Toluene-d8		104	%	77-127	2/10/99		5621
Surr. 4-Bromofluorobenzene		96	%	72-131	2/10/99		5621

Order ID Number: 990200075/76
Project Name: Shell Westgate

Date: 2/23/99
Page #14

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Benzidine		<2.5	mg/kg	2.5	02/08/99	5501	5622
Hexachlorobenzene		<0.25	mg/kg	0.25	02/08/99	5501	5622
Pentachlorobenzene		<0.25	mg/kg	0.25	02/08/99	5501	5622
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	02/08/99	5501	5622
Hexachloroethane		<0.25	mg/kg	0.25	02/08/99	5501	5622
2,4-dichlorphenol		<1.25	mg/kg	1.25	02/08/99	5501	5622
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	02/08/99	5501	5622
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	02/08/99	5501	5622
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	02/08/99	5501	5622
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	02/08/99	5501	5622
bis (chloromethyl) ether		<1.25	mg/kg	1.25	02/08/99	5501	5622
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	02/08/99	5501	5622
2,4-dinitrotoluene		<0.25	mg/kg	0.25	02/08/99	5501	5622
Diphenylhydrazine		<1.25	mg/kg	1.25	02/08/99	5501	5622
Hexachlorobutadiene		<0.25	mg/kg	0.25	02/08/99	5501	5622
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	02/08/99	5501	5622
Isophorone		<1.25	mg/kg	1.25	02/08/99	5501	5622
Nitrobenzene		<0.25	mg/kg	0.25	02/08/99	5501	5622
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	02/08/99	5501	5622
2,4-dinitrophenols		<1.25	mg/kg	1.25	02/08/99	5501	5622
n-nitrosodiethylamine		<0.25	mg/kg	0.25	02/08/99	5501	5622
N-nitrosodimethylamine		<0.25	mg/kg	0.25	02/08/99	5501	5622
N[redacted]osodibutylamine		<1.25	mg/kg	1.25	02/08/99	5501	5622
[redacted]osodiphenylamine		<0.25	mg/kg	0.25	02/08/99	5501	5622
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	02/08/99	5501	5622
Pentachlorophenol		<1.25	mg/kg	1.25	02/08/99	5501	5622
Dibutyl phthalate		<0.25	mg/kg	0.25	02/08/99	5501	5622
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	02/08/99	5501	5622
Diethyl phthalate		<0.25	mg/kg	0.25	02/08/99	5501	5622
Dimethyl phthalate		<0.25	mg/kg	0.25	02/08/99	5501	5622
Anthracene		<0.25	mg/kg	0.25	02/08/99	5501	5622
3,4-benzofluoranthene		<0.25	mg/kg	0.25	02/08/99	5501	5622
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	02/08/99	5501	5622
Fluoranthene		<0.25	mg/kg	0.25	02/08/99	5501	5622
Fluorene		<0.25	mg/kg	0.25	02/08/99	5501	5622
Phenanthrene		<0.25	mg/kg	0.25	02/08/99	5501	5622
Pyrene		<0.25	mg/kg	0.25	02/08/99	5501	5622
Naphthalene		<0.25	mg/kg	0.25	02/08/99	5501	5622
1-methylnaphthalene		<0.25	mg/kg	0.25	02/08/99	5501	5622
2-methylnaphthalene		<0.25	mg/kg	0.25	02/08/99	5501	5622
Benzo-a-pyrene		<0.25	mg/kg	0.25	02/08/99	5501	5622
Phenol		<0.25	mg/kg	0.25	02/08/99	5501	5622
monomethylnaphthalnenes		<0.25	mg/kg	0.25	02/08/99	5501	5622
Surr. 2-Fluorophenol		83	%	33-111	02/08/99	5501	5622
Surr. Phenol-d6		90	%	44-116	02/08/99	5501	5622
Surr. Nitrobenzene-d5		84	%	45-110	02/08/99	5501	5622
Surr. 2-Fluorobiphenyl		91	%	45-110	02/08/99	5501	5622
S[redacted] 2,4,6-Tribromophenol		83	%	66-123	02/08/99	5501	5622
[redacted]Terphenyl-d14		89	%	68-108	02/08/99	5501	5622

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Benzidine		<2.5	mg/kg	2.5	02/09/99	5549	5675
Hexachlorobenzene		<0.25	mg/kg	0.25	02/09/99	5549	5675
Pentachlorobenzene		<0.25	mg/kg	0.25	02/09/99	5549	5675
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	02/09/99	5549	5675
Hexachloroethane		<0.25	mg/kg	0.25	02/09/99	5549	5675
2,4-dichlorphenol		<1.25	mg/kg	1.25	02/09/99	5549	5675
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	02/09/99	5549	5675
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	02/09/99	5549	5675
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	02/09/99	5549	5675
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	02/09/99	5549	5675
bis (chloromethyl) ether		<1.25	mg/kg	1.25	02/09/99	5549	5675
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	02/09/99	5549	5675
2,4-dinitrotoluene		<0.25	mg/kg	0.25	02/09/99	5549	5675
Diphenylhydrazine		<1.25	mg/kg	1.25	02/09/99	5549	5675
Hexachlorobutadiene		<0.25	mg/kg	0.25	02/09/99	5549	5675
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	02/09/99	5549	5675
Isophorone		<1.25	mg/kg	1.25	02/09/99	5549	5675
Nitrobenzene		<0.25	mg/kg	0.25	02/09/99	5549	5675
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	02/09/99	5549	5675
2,4-dinitrophenols		<1.25	mg/kg	1.25	02/09/99	5549	5675
n-nitrosodiethylamine		<0.25	mg/kg	0.25	02/09/99	5549	5675
N-nitrosodimethylamine		<0.25	mg/kg	0.25	02/09/99	5549	5675
[illegible]itrosodibutylamine		<1.25	mg/kg	1.25	02/09/99	5549	5675
[illegible]-nitrosodiphenylamine		<0.25	mg/kg	0.25	02/09/99	5549	5675
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	02/09/99	5549	5675
Pentachlorophenol		<1.25	mg/kg	1.25	02/09/99	5549	5675
Dibutyl phthalate		<0.25	mg/kg	0.25	02/09/99	5549	5675
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	02/09/99	5549	5675
Diethyl phthalate		<0.25	mg/kg	0.25	02/09/99	5549	5675
Dimethyl phthalate		<0.25	mg/kg	0.25	02/09/99	5549	5675
Anthracene		<0.25	mg/kg	0.25	02/09/99	5549	5675
3,4-benzofluoranthene		<0.25	mg/kg	0.25	02/09/99	5549	5675
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	02/09/99	5549	5675
Fluoranthene		<0.25	mg/kg	0.25	02/09/99	5549	5675
Fluorene		<0.25	mg/kg	0.25	02/09/99	5549	5675
Phenanthrene		<0.25	mg/kg	0.25	02/09/99	5549	5675
Pyrene		<0.25	mg/kg	0.25	02/09/99	5549	5675
Naphthalene		<0.25	mg/kg	0.25	02/09/99	5549	5675
1-methylnaphthalene		<0.25	mg/kg	0.25	02/09/99	5549	5675
2-methylnaphthalene		<0.25	mg/kg	0.25	02/09/99	5549	5675
Benzo-a-pyrene		<0.25	mg/kg	0.25	02/09/99	5549	5675
Phenol		<0.25	mg/kg	0.25	02/09/99	5549	5675
Surr. 2-Fluorophenol		55	%	33-111	02/09/99	5549	5675
Surr. Phenol-d6		46	%	44-116	02/09/99	5549	5675
Surr. Nitrobenzene-d5		46	%	45-110	02/09/99	5549	5675
Surr. 2-Fluorobiphenyl		54	%	45-110	02/09/99	5549	5675
Surr. 2,4,6-Tribromophenol		66	%	66-123	02/09/99	5549	5675
[illegible]rr. Terphenyl-d14		101	%	68-108	02/09/99	5549	5675

Order ID Number: 990200075/76 Date: 2/23/99

Project Name: Shell Westgate Page #16

Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
PCB		<0.1	mg/kg	0.1	02/05/99	5514	5636
Arsenic		<0.50	mg/kg	0.50	02/08/99	5503	5624
Barium		<0.50	mg/kg	0.50	02/08/99	5503	5624
Cadmium		<0.10	mg/kg	0.10	02/08/99	5503	5624
Chromium		<0.50	mg/kg	0.50	02/08/99	5503	5624
Lead		<0.50	mg/kg	0.50	02/08/99	5503	5624
Total Mercury		<0.10	mg/kg	0.10	02/09/99	5502	5623
Selenium		<0.50	mg/kg	0.50	02/08/99	5503	5624
Silver		<0.50	mg/kg	0.50	02/08/99	5503	5624
Uranium		<5.0	mg/kg	5.0	02/08/99	5503	5624
Copper		<1.0	mg/kg	1.0	02/08/99	5503	5624
Iron		<1.0	mg/kg	1.0	02/18/99	5511	5633
Manganese		<1.0	mg/kg	1.0	02/08/99	5503	5624
Zinc		<1.0	mg/kg	1.0	02/08/99	5503	5624
Aluminum		<10	mg/kg	10	02/08/99	5503	5624
Boron		<10	mg/kg	10	02/08/99	5503	5624
Cobalt		<1.0	mg/kg	1.0	02/08/99	5503	5624
Molybdenum		<0.50	mg/kg	0.50	02/08/99	5503	5624
Nickel		<0.50	mg/kg	0.50	02/08/99	5503	5624
Cyanide		<0.20	mg/kg	0.20	02/11/99	5504	5625
[illegible]oride		<0.1	mg/kg	0.1	02/04/99	5512	5634
[illegible]itrate		<0.2	mg/kg	0.1	02/04/99	5512	5634
Chloride		<0.5	mg/kg	0.5	02/04/99	5512	5634
Sulfate		<0.5	mg/kg	0.5	02/04/99	5512	5634
Total Dissolved Solids		<10	mg/kg	10	02/04/99	5505	5626
TRPHC		<10.0	mg/kg	10	02/05/99	5455	5568
Total Phenols		<1.75	mg/kg	1.75	02/04/99	5513	5635

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/23/99
Page #17

Order ID Number: 990200075/76
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	95	95	02/04/99	5619
1,1-Dichloroethene		100	ug/L	85	85	02/04/99	5619
Chloroform		100	ug/L	85	85	02/04/99	5619
1,2-Dichloropropane		100	ug/L	96	96	02/04/99	5619
Toluene		100	ug/L	85	85	02/04/99	5619
Chlorobenzene		100	ug/L	100	100	02/04/99	5619
Ethylbenzene		100	ug/L	99	99	02/04/99	5619
Surr. Dibromofluoromethane		100	ug/L	94	94	02/04/99	5619
Surr. Toluene-d8		100	ug/L	110	110	02/04/99	5619
Surr. 4-Bromofluorobenzene		100	ug/L	99	99	02/04/99	5619
Vinyl chloride		100	ug/L	113	113	02/08/99	5620
1,1-Dichloroethene		100	ug/L	90	90	02/08/99	5620
Chloroform		100	ug/L	101	101	02/08/99	5620
1,2-Dichloropropane		100	ug/L	102	102	02/08/99	5620
Toluene		100	ug/L	98	98	02/08/99	5620
Chlorobenzene		100	ug/L	100	100	02/08/99	5620
Ethylbenzene		100	ug/L	99	99	02/08/99	5620
Surr. Dibromofluoromethane		100	ug/L	96	96	02/08/99	5620
Surr. Toluene-d8		100	ug/L	104	104	02/08/99	5620
Surr. 4-Bromofluorobenzene		100	ug/L	96	96	02/08/99	5620
Vinyl chloride		100	ug/L	91	91	02/10/99	5621
1,1-Dichloroethene		100	ug/L	102	102	02/10/99	5621
Chloroform		100	ug/L	95	95	02/10/99	5621
1,2-Dichloropropane		100	ug/L	101	101	02/10/99	5621
Toluene		100	ug/L	100	100	02/10/99	5621
Chlorobenzene		100	ug/L	100	100	02/10/99	5621
Ethylbenzene		100	ug/L	101	101	02/10/99	5621
Surr. Dibromofluoromethane		100	ug/L	94	94	02/10/99	5621
Surr. Toluene-d8		100	ug/L	104	104	02/10/99	5621
Surr. 4-Bromofluorobenzene		100	ug/L	96	96	02/10/99	5621

Cliff P. Brunson.
[redacted]C. International, Inc.
[redacted]4 W. Marland
Hobbs, NM 88240

Date: 02/23/99
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Order ID Number: 990200075/76
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Phenol		80	mg/L	73	91	02/08/99	5622
1,4-Dichlorobenzene		80	mg/L	76	95	02/08/99	5622
2-nitrophenol		80	mg/L	80	100	02/08/99	5622
2,4-Dichlorophenol		80	mg/L	81	101	02/08/99	5622
Hexachlorobutadiene		80	mg/L	79	99	02/08/99	5622
4-Chloro-3-methylphenol		80	mg/L	78	98	02/08/99	5622
2,4,6-Trichlorophenol		80	mg/L	82	103	02/08/99	5622
Acenaphthene		80	mg/L	79	99	02/08/99	5622
n-Nitrosodiphenylamine		80	mg/L	71	89	02/08/99	5622
Pentachlorophenol		80	mg/L	90	113	02/08/99	5622
Fluoranthene		80	mg/L	84	105	02/08/99	5622
Di-n-octylphthalate		80	mg/L	72	90	02/08/99	5622
Benzo(a)pyrene		80	mg/L	79	99	02/08/99	5622
[redacted]. 2-Fluorophenol		80	mg/L	89	111	02/08/99	5622
[redacted]. Phenol-d6		80	mg/L	88	110	02/08/99	5622
Surr. Nitroobenzene-d5		80	mg/L	91	114	02/08/99	5622
Surr. 2-Fluorobiphenyl		80	mg/L	90	113	02/08/99	5622
Surr. 2,4,6-Tribromophenol		80	mg/L	98	123	02/08/99	5622
Surr. Terphenyl-d14		80	mg/L	83	104	02/08/99	5622
Phenol		80	mg/L	89	111	02/09/99	5675
1,4-Dichlorobenzene		80	mg/L	81	101	02/09/99	5675
2-nitrophenol		80	mg/L	82	103	02/09/99	5675
2,4-Dichlorophenol		80	mg/L	80	100	02/09/99	5675
Hexachlorobutadiene		80	mg/L	74	93	02/09/99	5675
4-Chloro-3-methylphenol		80	mg/L	79	99	02/09/99	5675
2,4,6-Trichlorophenol		80	mg/L	91	114	02/09/99	5675
Acenaphthene		80	mg/L	82	103	02/09/99	5675
n-Nitrosodiphenylamine		80	mg/L	68	85	02/09/99	5675
Pentachlorophenol		80	mg/L	82	103	02/09/99	5675
Fluoranthene		80	mg/L	72	90	02/09/99	5675
Di-n-octylphthalate		80	mg/L	71	89	02/09/99	5675
Benzo(a)pyrene		80	mg/L	82	103	02/09/99	5675
Surr. 2-Fluorophenol		80	mg/L	88	110	02/09/99	5675
Surr. Phenol-d6		80	mg/L	56	70	02/09/99	5675
Surr. Nitroobenzene-d5		80	mg/L	81	101	02/09/99	5675
Surr. 2-Fluorobiphenyl		80	mg/L	85	106	02/09/99	5675
Surr. 2,4,6-Tribromophenol		80	mg/L	88	110	02/09/99	5675
Surr. Terphenyl-d14		80	mg/L	78	98	02/09/99	5675

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/23/99
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Order ID Number: 990200075/76
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
PCB		0.40	mg/L	0.41	103	02/05/99	5636
Arsenic		1.0	mg/L	0.95	95	02/08/99	5624
Barium		1.0	mg/L	0.99	99	02/08/99	5624
Cadmium		1.0	mg/L	1.0	100	02/08/99	5624
Chromium		1.0	mg/L	1.0	100	02/08/99	5624
Lead		1.0	mg/L	1.0	100	02/08/99	5624
Total Mercury		5.0	mg/L	4.5	90	02/09/99	5623
Selenium		1.0	mg/L	1.0	100	02/08/99	5624
Silver		0.20	mg/L	0.19	95	02/08/99	5624
Uranium		1.0	mg/L	0.95	95	02/08/99	5624
[illegible]er		1.0	mg/L	1.0	100	02/08/99	5624
[illegible]		1.0	mg/L	0.96	96	02/18/99	5633
Manganese		1.0	mg/L	0.94	94	02/08/99	5624
Zinc		1.0	mg/L	0.97	97	02/08/99	5624
Aluminum		1.0	mg/L	0.98	98	02/08/99	5624
Boron		1.0	mg/L	1.0	100	02/08/99	5624
Cobalt		1.0	mg/L	1.0	100	02/08/99	5624
Molybdenum		1.0	mg/L	0.93	93	02/08/99	5624
Nickel		1.0	mg/L	0.94	94	02/08/99	5624
Cyanide		0.120	mg/L	0.115	96	02/11/99	5625
Fluoride		2.5	mg/L	2.440	98	02/04/99	5634
Nitrate		5.0	mg/L	4.735	95	02/04/99	5634
Chloride		12.5	mg/L	12.11	97	02/04/99	5634
Sulfate		12.5	mg/L	12.08	97	02/04/99	5634
TDS		1000	mg/L	970	97	02/04/99	5626
pH		7.0	s.u.	7.0	100	02/04/99	5637
TRPHC		100	mg/L	104	104	02/05/99	5568
Total Phenol		0.800	mg/L	0.803	100	02/04/99	5635

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/23/99

Order ID Number: 990200075/76
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene	*	ug/L	<1	100	75	75	100	79	79	5	2/4/99		5619
Benzene	*	ug/L	<1	100	80	80	100	86	86	7	2/4/99		5619
Trichloroethene	*	ug/L	<1	100	73	73	100	79	79	8	2/4/99		5619
Toluene	*	ug/L	<1	100	81	81	100	86	86	6	2/4/99		5619
Chlorobenzene	*	ug/L	<1	100	98	98	100	106	106	8	2/4/99		5619
Surr. Dibromofluoromethane		%	91	100	93	93	100	92	92	1	2/4/99		5619
Surr. Toluene-d8		%	111	100	112	112	100	112	112	0	2/4/99		5619
Surr. 4-Bromofluorobenzene		%	98	100	97	97	100	97	97	0	2/4/99		5619
1,1-Dichloroethene		ug/kg	<25	100	98	98	100	99	99	1	2/8/99		5620
Benzene		ug/kg	<25	100	109	109	100	111	111	2	2/8/99		5620
Trichloroethene		ug/kg	<25	100	109	109	100	113	113	4	2/8/99		5620
Toluene		ug/kg	<25	100	109	109	100	111	111	2	2/8/99		5620
Chlorobenzene		ug/kg	<25	100	106	106	100	109	109	3	2/8/99		5620
Surr. Dibromofluoromethane		%	96	100	98	98	100	96	96	2	2/8/99		5620
Surr. Toluene-d8		%	103	100	102	102	100	102	102	0	2/8/99		5620
Surr. 4-Bromofluorobenzene		%	99	100	99	99	100	98	98	1	2/8/99		5620
1,1-Dichloroethene		ug/kg	<27	100	96	96	100	99	99	3	2/10/99		5621
Benzene		ug/kg	<27	100	109	109	100	108	108	1	2/10/99		5621
Trichloroethene		ug/kg	<27	100	109	109	100	110	110	1	2/10/99		5621
Toluene		ug/kg	<27	100	109	109	100	110	110	1	2/10/99		5621
Chlorobenzene		ug/kg	<27	100	108	108	100	109	109	1	2/10/99		5621
Surr. Dibromofluoromethane		%	90	100	90	90	100	93	93	3	2/10/99		5621
Surr. Toluene-d8		%	103	100	103	103	100	104	104	1	2/10/99		5621
Surr. 4-Bromofluorobenzene		%	97	100	96	96	100	95	95	1	2/10/99		5621
Phenol		mg/kg	<0.25	100	86	86	100	81	81	6	2/8/99	5501	5622
2-Chlorophenol		mg/kg	<1.25	100	84	84	100	78	78	7	2/8/99	5501	5622
1,4-Dichlorobenzene		mg/kg	<0.25	100	82	82	100	76	76	8	2/8/99	5501	5622
n-Nitrosodi-n-propylamine		mg/kg	<0.25	100	91	91	100	85	85	7	2/8/99	5501	5622
1,2,4-trichlorobenzene		mg/kg	<0.25	100	82	82	100	74	74	10	2/8/99	5501	5622
4-Chloro-3-methylphenol		mg/kg	<0.25	100	90	90	100	82	82	9	2/8/99	5501	5622
Acenaphthene		mg/kg	<0.25	100	86	86	100	80	80	7	2/8/99	5501	5622
4-Nitrophenol		mg/kg	<0.25	100	95	95	100	90	90	5	2/8/99	5501	5622
2,4-Dinitrotoluene		mg/kg	<0.25	100	92	92	100	87	87	6	2/8/99	5501	5622
Pentachlorophenol		mg/kg	<0.25	100	75	75	100	68	68	10	2/8/99	5501	5622
Pyrene		mg/kg	<0.25	100	89	89	100	84	84	6	2/8/99	5501	5622

*MS's used for spike and spike duplicate.

Order ID Number: 990200075/76
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 2/23/99
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Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Surr. 2-Fluorophenol		%	78	100	78	78	100	73	73	7	2/8/99	5501	5622
Surr. Phenol-d6		%	84	100	82	82	100	78	78	5	2/8/99	5501	5622
Surr. Nitrobenzene-d5		%	83	100	85	85	100	79	79	7	2/8/99	5501	5622
Surr. 2-Fluorobiphenyl		%	87	100	87	87	100	82	82	6	2/8/99	5501	5622
Surr. 2,4,6-Tribromophenol		%	73	100	97	97	100	94	94	3	2/8/99	5501	5622
Surr. Terphenyl-d14		%	95	100	87	87	100	81	81	7	2/8/99	5501	5622
Phenol		mg/kg	<1.25	100	79	79	100	70	70	12	2/9/99	5549	5675
2-Chlorophenol		mg/kg	<6.25	100	76	76	100	67	67	13	2/9/99	5549	5675
1,4-Dichlorobenzene		mg/kg	<1.25	100	69	69	100	62	62	11	2/9/99	5549	5675
n-Nitrosodi-n-propylamine		mg/kg	<1.25	100	70	70	100	59	59	17	2/9/99	5549	5675
1,2,4-trichlorobenzene		mg/kg	<1.25	100	68	68	100	59	59	14	2/9/99	5549	5675
4-Chloro-3-methylphenol		mg/kg	<6.25	100	80	80	100	78	78	3	2/9/99	5549	5675
Acenaphthene		mg/kg	<1.25	100	83	83	100	76	76	9	2/9/99	5549	5675
4-Nitrophenol		mg/kg	<6.25	100	40	40	100	36	36	11	2/9/99	5549	5675
2,4-Dinitrotoluene		mg/kg	<1.25	100	98	98	100	98	98	0	2/9/99	5549	5675
Pentachlorophenol		mg/kg	<1.25	100	80	80	100	80	80	0	2/9/99	5549	5675
Pyrene		mg/kg	<1.25	100	76	76	100	79	79	4	2/9/99	5549	5675
Surr. 2-Fluorophenol		%	58	100	71	71	100	62	62	14	2/9/99	5549	5675
Surr. Phenol-d6		%	54	100	82	82	100	71	71	14	2/9/99	5549	5675
Surr. Nitrobenzene-d5		%	75	100	71	71	100	63	63	12	2/9/99	5549	5675
Surr. 2-Fluorobiphenyl		%	89	100	77	77	100	67	67	14	2/9/99	5549	5675
Surr. 2,4,6-Tribromophenol		%	66	100	94	94	100	94	94	0	2/9/99	5549	5675
Surr. Terphenyl-d14		%	108	100	92	82	100	87	87	6	2/9/99	5549	5675
PCB		mg/kg	<0.1	0.5	0.53	114	0.5	0.52	112	2	2/5/99	5514	5636
Arsenic		mg/kg	<0.50	200	167	84	200	177	89	6	2/8/99	5503	5624
Barium		mg/kg	<0.30	200	195	98	200	199	100	3	2/8/99	5503	5624
Cadmium		mg/kg	0.35	200	173	86	200	173	87	0	2/8/99	5503	5624
Chromium		mg/kg	4.1	200	183	89	200	184	92	1	2/8/99	5503	5624
Lead		mg/kg	<0.50	200	170	85	200	171	86	1	2/8/99	5503	5624
Total Mercury		mg/kg	<0.10	2.5	2.1	84	2.5	2.2	88	5	2/9/99	5502	5623
Selenium		mg/kg	<0.50	200	181	91	200	184	92	2	2/8/99	5503	5624
Silver		mg/kg	13	40	48	88	40	48	88	0	2/8/99	5503	5624
Uranium		mg/kg	<5.0	200	181	91	200	179	90	1	2/8/99	5503	5624
Copper		mg/kg	5.9	200	197	96	200	196	95	1	2/8/99	5503	5624
Iron		mg/kg	2200	200	2421	111	200	2436	118	1	2/18/99	5511	5633
Manganese		mg/kg	23	200	195	86	200	198	88	2	2/8/99	5503	5624
Zinc		mg/kg	10	200	179	85	200	177	84	1	2/8/99	5503	5624
Aluminum		mg/kg	3650	200	3830	90	200	3640	95	5	2/8/99	5503	5624
Boron		mg/kg	16	200	202	93	200	198	91	2	2/8/99	5503	5624
Cobalt		mg/kg	4.3	200	172	84	200	174	85	1	2/8/99	5503	5624
Molybdenum		mg/kg	2.5	20	19	83	20	20	88	5	2/8/99	5503	5624
Nickel		mg/kg	26	200	201	88	200	198	86	2	2/8/99	5503	5624
Cyanide		mg/kg	<0.20	3.0	2.64	88	3.0	2.64	88	0	2/11/99	5504	5625

LCS's used for spike & spike dup.

Order ID Number: 990200075/76
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 2/23/99

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Fluoride		mg/kg	1.3	5.0	6.13	97	5.0	6.16	97	0	2/4/99	5512	5634
Nitrate		mg/kg	<1.0	10	10.46	105	10	10.37	104	1	2/4/99	5512	5634
Chloride		mg/kg	24	25	47.18	93	25	47.12	92	0	2/4/99	5512	5634
Sulfate		mg/kg	6.7	50	31	48	50	31	61	0	2/4/99	5512	5634
TRPHC		mg/kg	<10	250	230	92	250	248	99	8	2/5/99	5455	5568
Total Phenol	*	mg/kg	2.49	20.0	20.8	92	20.0	22.2	99	7	2/4/99	5513	5635

*LCS's used for spike & spike dup.

Quality Control Report
Duplicate

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/23/99
Page #23

Order ID Number: 990200075/76
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Duplicate Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	9.0	9.0	0	2/4/99	5515	5637
TDS		mg/kg	120	130	8	2/4/99	5505	5626

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-

Report Date: *16-Feb-99*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Attn: Nell Green

Our Lab#: MEL99-01536 **Your Sample ID:** 118283
Date Logged In: 2/9/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:**
Project #: **Date Submitted to Lab:** 2/8/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/2/99

EPA Method	Analyst	Prep Date	Analysis Date
160.3	DJF		2/10/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	93.4 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	2/10/99	2/13/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 mg/kg	0.02
57-74-9	Chlordane(Total)	< 0.10 mg/kg	0.1
50-29-3	4,4'-DDT	< 0.03 mg/kg	0.03
60-57-1	Dieldrin	< 0.02 mg/kg	0.02
959-98-8	Endosulfan I	< 0.03 mg/kg	0.03
72-20-8	Endrin	< 0.05 mg/kg	0.05
76-44-8	Heptachlor	< 0.03 mg/kg	0.03

6878 S. STATE ROUTE 100 • P.O. BOX 76 • MELMORE, OH 44845-9999
PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-01536	8081	Decachlorobiphenyl (Surr)	11 %R *	41	129
		Surrogate dilute dout due to matrix interference			
MEL99-01536	8081	Tetrachloro-m-xylene (Surr)	6 %R *	27	119
		Surrogate dilute dout due to matrix interference			

End of Report

Report Approved By: Wade E. Baver

Wade E. Baver

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Your Sample ID: 118283

Lab Number MEL99-01536

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-
Attn: Nell Green

Report Date: 16-Feb-99

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Our Lab#: MEL99-01537 **Your Sample ID:** 118284
Date Logged In: 2/9/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:**
Project #: **Date Submitted to Lab:** 2/8/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/2/99

EPA Method	Analyst	Prep Date	Analysis Date
.3	DJF		2/10/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	89.4 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	2/10/99	2/13/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 mg/kg	0.02
57-74-9	Chlordane(Total)	< 0.10 mg/kg	0.1
50-29-3	4,4'-DDT	< 0.03 mg/kg	0.03
60-57-1	Dieldrin	< 0.02 mg/kg	0.02
959-98-8	Endosulfan I	< 0.03 mg/kg	0.03
72-20-8	Endrin	< 0.05 mg/kg	0.05
76-44-8	Heptachlor	< 0.03 mg/kg	0.03

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-01537	8081	Decachlorobiphenyl (Surr)	90 %R	41	129
MEL99-01537	8081	Tetrachloro-m-xylene (Surr)	62 %R	27	119

End of Report

Report Approved By: Wade E. Bayer

Wade E. Bayer

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Your Sample ID: 118284

Lab Number MEL99-01537

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PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

Mitchell Davis and Associates. Inc.

Post Office Box 606
Gramercy, LA 70052-0606
Phone: 225-869-7000

1-800-679-9874

Fax: (225) 869-7002

Mitchell Davis and Associates, Inc.

Laboratory Analysis Report

Prepared For:

Trace Analysis, Inc.
Nell Green
6701 Aberdeen Ave, Ste. 9
Lubbock, TX 79424
Phone: 806-794-1296
Fax: 806-794-1298

Quality Assurance Review

Mitchell Davis and Associates, Inc. assumes no liability for the use or interpretation of any analytical results other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Mitchell Davis and Associates. Inc.

Post Office Box 606
Gramercy, LA 70052-0606
00-679-9874 Phone: 225-869-7000 Fax: (225) 869-7002

Tracking Number:	DAV-99-0201	**P.O. Number:**	Verbal
Client ID:	118283	**Davis Sample ID:**	DAV-99-0503
Date Sampled:	2/2/99	**Date Received:**	2/5/99
Time Sampled:	1640	**Time Received:**	1115
Type of Sample:	Solid	**Date of Report:**	2/8/99

Analysis Description	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	1.23	0.82	pCi/gm	0.05	0.03	Bq/gm	EPA 901.1M	2/6/99 1105	md
Ra-228	<0.26	N/A	pCi/gm	<0.01	N/A	Bq/gm	EPA 901.1M	2/6/99 1105	md
Pb-210	1.11	0.84	pCi/gm	0.04	0.03	Bq/gm	EPA 901.1M	2/6/99 1105	md
otal Activity	5.67	N/A	pCi/gm	0.21	N/A	Bq/gm	EPA 901.1M	2/6/99 1105	md

Notes:

Quality Assurance Review

Mitchell Davis and Associates, Inc. assumes no liability for the use or interpretation of any analytical results other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Mitchell Davis and Associates. Inc.

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Gramercy, LA 70052-0606
800-679-9874 Phone: 225-869-7000 Fax: (225) 869-7002

Tracking Number:	DAV-99-0201	**P.O. Number:**	Verbal
Client ID:	118284	**Davis Sample ID:**	DAV-99-0504
Date Sampled:	2/2/99	**Date Received:**	2/5/99
Time Sampled:	1024	**Time Received:**	1115
Type of Sample:	Solid	**Date of Report:**	2/8/99

Analysis Description	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	<1.23	N/A	pCi/gm	0.05	N/A	Bq/gm	EPA 901.1M	2/6/99 1209	md
Ra-228	<0.31	N/A	pCi/gm	<0.01	N/A	Bq/gm	EPA 901.1M	2/6/99 1209	md
Pb-210	<1.32	N/A	pCi/gm	<0.05	N/A	Bq/gm	EPA 901.1M	2/6/99 1209	md
Total Activity	0.84	N/A	pCi/gm	0.03	N/A	Bq/gm	EPA 901.1M	2/6/99 1209	md

Notes:

Quality Assurance Review

Mitchell Davis and Associates, Inc. assumes no liability for the use or interpretation of any analytical results other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Mitchell Davis and Associates. Inc.

Post Office Box 606
Gramercy, LA 70052-0606
-800-679-9874 Phone: 225-869-7000 Fax: (225) 869-7002

Notes:

Comments:

1. Soil and Sludge analysis results are reported on a wet basis or as received basis unless otherwise indicated.
2. The data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
3. Modified analysis procedures are procedures that are modified to meet certain specifications. An example would be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix.
4. Derived Air Concentrations and Effluent Release Concentrations are obtained from 10 CFR 20 Appendix B.
5. Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring decay chains and other prominent radioactive isotopes. Total activity may be lower than actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of isotopes that emit solely alpha or beta radiation.
6. Ra-228 is determined via secular equilibrium with its daughter, Actinium 228. (Gamma Spectroscopy only)
7. U-238 is determined via secular equilibrium with its daughter, Thorium 234. (Gamma Spectroscopy only).
8. All Gamma Spectroscopy was performed using high purity germanium detectors (HPGE).

Method References:

1. EPA 600/4-80-032, Prescribed Procedures for the Measurement of Radioactivity in Drinking Water, August 1980.
2. Standard Methods for the Examination of Water and Waste Water, 18th, 1992.
3. EPA SW-846, Test Methods for Evaluating Solid Waste, Third Edition, (9/86). (Updated through 1995)
4. EPA 600/4/79-020, Methods for Chemical Analysis of Water and Waste, March 1983.
5. HASL 300

Definitions:

1.	BDL	Analyte not detected because the value was below the detection limit.
2.	ND	Not detected above the detection limit.
3.	Detection Limit	The minimum amount of the analyte that can be detected utilizing the specific analysis.
4.	B	Method Blank
5.	D	Method Duplicate
6.	MS	Matrix Spike
7.	S	Spike
8.	RS	Reference Spike
9.	SC	Subcontracted to qualified laboratory
10.	NR	Not Referenced

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118283

P ___ of ___

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 75/76

Company Name: BBC International, Inc. Phone #: (505) 397-6388

Address: (Street, City, Zip) 1324 W. Marland, Hobbs, NM 88240 Fax #: (505) 397-0397

Contact Person: Cliff P. Brunson

Invoice to: (If different from above) Shell E & P Technology Co. ATTN: Wayne Hamilton

Project #: Project Name: Shell Westgate

Project Location: Hobbs, New Mexico Sampler Signature: Sean E. Haed

ANALYSIS REQUEST

(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
118283	TSB 14 40-42'	6	5 40z 1 VOA		✓								2/2/99	4:40 pm
84	TSB 14 63-65'	6	5 40z 1 VOA		✓								2/3/99	10:24 pm
85	Field Blank	2	VOAS	✓									2/3/99	
86	Trip Blank	2	VOAS	✓									2/3/99	

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	See Attached (Full Suite)	Total Chlorides (300-1)	Total Metals (6010)	Turn Around Time if different from standard	Hold
		✓													✓				
		✓													✓				
															✓				
															✓				

Relinquished by: Date: Time: Received by: Date: Time:

Relinquished by: Date: Time: Received by: Date: Time:

Relinquished by: Date: Time: Received at Laboratory by: Dick Windham 2-4-99 Date: 9:30 Time:

LAB USE ONLY

Intact (Y) N

Headspace Y / N

Temp 4 °

Log-in Review MS

REMARKS: Agreed Upon Turnaround

Carrier # BUS 901984692

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/24/99
Page: # 1

Project Name: Shell Westgate
Project Location: Hobbs, NM
Order ID Number: 990200092/93

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
118337	GMW 11 19-21'	Soil	02/04/99	9:55 a.m.	02/05/99
118338	GMW 11 63-65'	Soil	02/04/99	2:00 p.m.	02/05/99
118339	Field Blank	Water	02/04/99		02/05/99
118340	Trip Blank	Water	02/04/99		02/05/99

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

This report shall not be reproduced except in its entirety, without written approval of the laboratory.

These results represent only the samples received in the laboratory.

This report consists of a total of 27 pages.

Dr. Blair Leftwich
Director

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/24/99
Page # 2

Sample Number: 118337

Order ID Number: 990200092/93
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 11 19-21'

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<145	ug/kg	S-8260B		2/8/99	JG		5678	145
Acrylonitrile		<145	ug/kg	S-8260B		2/8/99	JG		5678	145
Benzene		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
Carbon tetrachloride		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
Chlorobenzene		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
1,2-dichloroethane		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
1,1,2,2-tetrachloroethane		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
1,1,1-trichloroethane		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
1,1,2-trichloroethane		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
1,1,2-trichloroethylene		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
Chloroform		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
Dichlorobenzene		<58	ug/kg	S-8260B		2/8/99	JG		5678	58
1,1-dichloroethylene		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
Dichloropropenes		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
Ethylbenzene		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
Bromodichloromethane		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
Bromomethane		<145	ug/kg	S-8260B		2/8/99	JG		5678	145
Chloromethane		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
Dichlorodifluoromethane		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
Dichloromethane		<145	ug/kg	S-8260B		2/8/99	JG		5678	145
Trichlorofluoromethane		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
Tetrachloroethylene		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
Toluene		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
Trichloroethylene		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
Vinyl chloride		<58	ug/kg	S-8260B		2/8/99	JG		5678	58
m,p-xylene		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
o-xylene		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
1,1-dichloroethane		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
Ethylene dibromide		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
cis-1,2-dichlorethylene		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
trans-1,2-dichloroethylene		<29	ug/kg	S-8260B		2/8/99	JG		5678	29
Methylene chloride		<145	ug/kg	S-8260B		2/8/99	JG		5678	145
Surr. Dibromofluoromethane		98	%	S-8260B		2/8/99	JG		5678	72-130
Surr. Toluene-d8		102	%	S-8260B		2/8/99	JG		5678	77-127
Surr. 4-Bromofluorobenzene		99	%	S-8260B		2/8/99	JG		5678	72-131

Field Code: GMW 11 19-21' Sample Number: 118337 Page # 3
Order ID Number: 990200092/93

Parameter	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	2.5
Hexachlorobenzene	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Pentachlorobenzene	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
1,2,4,5-tetrachlorobenzene	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Hexachloroethane	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
2,4-dichlorphenol	<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
2,4,5-trichlorophenol	<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
2,4,6-trichlorophenol	<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
bis (2-chloroethyl) ether	<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
bis (2-chloroisopropyl) ether	<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
bis (chloromethyl) ether	<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
3,3-dichlorobenzidine	<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
2,4-dinitrotoluene	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Diphenylhydrazine	<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
Hexachlorobutadiene	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Hexachlorocyclopentadiene	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Isophorone	<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
Nitrobenzene	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
2,4-dinitro-o-cresol	<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
2,4-dinitrophenols	<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
n-nitrosodiethylamine	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
N-nitrosodimethylamine	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
N-nitrosodibutylamine	<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
N-nitrosodiphenylamine	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
N-nitrosopyrrolidine	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Pentachlorophenol	<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
Dibutyl phthalate	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
di-2-ethylhexyl phthalate	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Diethyl phthalate	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Dimethyl phthalate	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Anthracene	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
3,4-Benzofluoranthene	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Benzo(k)fluoranthene	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Fluoranthene	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Fluorene	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Phenanthrene	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Pyrene	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Naphthalene	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
1-methylnaphthalene	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
2-methylnaphthalene	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Benzo-a-pyrene	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Phenol	<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Surr. 2-Fluorophenol	57	%	8270C	2/10/99	2/10/99	MA	5552	5680	44-108
Surr. Phenol-d6	49	%	8270C	2/10/99	2/10/99	MA	5552	5680	53-112
Surr. Nitroobenzene-d5	53	%	8270C	2/10/99	2/10/99	MA	5552	5680	21-106
Surr. 2-Fluorobiphenyl	57	%	8270C	2/10/99	2/10/99	MA	5552	5680	35-113
Surr. 2,4,6-Tribromophenol	59	%	8270C	2/10/99	2/10/99	MA	5552	5680	66-124
Surr. Terphenyl-d14	98	%	8270C	2/10/99	2/10/99	MA	5552	5680	59-119

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Date: 02/24/99
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Sample Number: 118337

Order ID Number: 990200092/93
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 11 19-21'

Parameter		Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin	<0.02	mg/kg	8081	2/10/99	2/13/99	SH			0.02
Chlordane	<0.10	mg/kg	8081	2/10/99	2/13/99	SH			0.1
DDT	<0.03	mg/kg	8081	2/10/99	2/13/99	SH			0.03
Dieldrin	<0.02	mg/kg	8081	2/10/99	2/13/99	SH			0.02
Endosulfan	<0.03	mg/kg	8081	2/10/99	2/13/99	SH			0.03
Endrin	<0.05	mg/kg	8081	2/10/99	2/13/99	SH			0.05
Heptachlor	<0.03	mg/kg	8081	2/1/99	2/19/99	SH			0.03
PCB's	<0.1	mg/kg	8082	2/16/99	2/16/99	CS	5551	5677	0.1
Arsenic	<0.50	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	0.50
Barium	26	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	0.50
Cadmium	0.61	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	0.50
Chromium	2.6	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	0.50
Lead	<0.50	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	0.50
Total Mercury	<0.10	mg/kg	7471A	2/8/99	2/9/99	BP	5516	5638	0.10
Selenium	<0.50	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	0.50
Silver	7.6	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	0.50
Uranium	<5.0	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	5.0
Copper	5.4	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	1.0
Iron	1,100	mg/kg	6010B	2/5/99	2/11/99	RR	5517	5640	5.0
Manganese	10	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	1.0
Zinc	15	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	2.0
Aluminum	1,300	mg/kg	6010B	2/5/99	2/11/99	RR	5517	5640	10
Boron	54	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	1.0
Cobalt	3.6	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	1.0
Molybdenum	1.3	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	1.0
Nickel	30	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	0.50
Cyanide	<0.20	mg/kg	SM 4500CN C,E	2/11/99	2/11/99	MD	5518	5641	0.20
Fluoride	2.9	mg/kg	300.0	2/8/99	2/8/99	JS	5519	5642	0.1
Nitrate	1.6	mg/kg	300.0	2/8/99	2/8/99	JS	5519	5642	0.1
Chloride	76	mg/kg	300.0	2/8/99	2/8/99	JS	5519	5642	0.5
Sulfate	260	mg/kg	300.0	2/8/99	2/8/99	JS	5519	5642	0.5
TDS	560	mg/kg	160.1	2/8/99	2/8/99	SA	5520	5643	10
pH	8.7	s.u.	150.1	2/8/99	2/8/99	RS	5521	5644	---
TRPHC	<10.0	mg/kg	418.1	2/5/99	2/5/99	MF	5455	5568	10
Total Phenol	<0.50	mg/kg	SM 5530 A,D	2/10/99	2/10/99	SA	5522	5645	0.50
Total Radium	<2.38	pCi/gm	901.1M		2/10/99	MD			

Analytical Results Report

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Date: 2/24/99
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Sample Number: 118338

Order ID Number: 990200092/93
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 11 63-65'

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<140	ug/kg	S-8260B		2/8/99	JG		5678	140
Acrylonitrile		<140	ug/kg	S-8260B		2/8/99	JG		5678	140
Benzene		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
Carbon tetrachloride		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
Chlorobenzene		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
1,2-dichloroethane		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
1,1,2,2-tetrachloroethane		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
1,1,1-trichloroethane		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
1,1,2-trichloroethane		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
1,1,2-trichloroethylene		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
Chloroform		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
Dichlorobenzene		<52	ug/kg	S-8260B		2/8/99	JG		5678	52
1,1-dichloroethylene		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
Dichloropropenes		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
Ethylbenzene		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
Bromodichloromethane		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
Bromomethane		<140	ug/kg	S-8260B		2/8/99	JG		5678	140
Chloromethane		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
Dichlorodifluoromethane		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
Dichloromethane		<140	ug/kg	S-8260B		2/8/99	JG		5678	140
Trichlorofluoromethane		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
Tetrachloroethylene		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
Toluene		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
Trichloroethylene		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
Vinyl chloride		<56	ug/kg	S-8260B		2/8/99	JG		5678	56
m,p-xylene		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
o-xylene		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
1,1-dichloroethane		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
Ethylene dibromide		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
cis-1,2-dichlorethylene		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
trans-1,2-dichloroethylene		<28	ug/kg	S-8260B		2/8/99	JG		5678	28
Methylene chloride		<140	ug/kg	S-8260B		2/8/99	JG		5678	140
Surr. Dibromofluoromethane		97	%	S-8260B		2/8/99	JG		5678	72-130
Surr. Toluene-d8		102	%	S-8260B		2/8/99	JG		5678	77-127
Surr. 4-Bromofluorobenzene		98	%	S-8260B		2/8/99	JG		5678	72-131

Order ID Number: 990200092/93 Page #6

Field Code: GMW 11 63-65' Sample Number: 118338

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Hexachloroethane		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
bis (2-chloroethyl) ether		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Isophorone		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
Nitrobenzene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Anthracene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Fluoranthene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Fluorene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Phenanthrene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Pyrene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Naphthalene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Phenol		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5552	5680	0.25
Surr. 2-Fluorophenol		71	%	8270C	2/10/99	2/10/99	MA	5552	5680	44-108
Surr. Phenol-d6		64	%	8270C	2/10/99	2/10/99	MA	5552	5680	53-112
Surr. Nitroobenzene-d5		64	%	8270C	2/10/99	2/10/99	MA	5552	5680	21-106
Surr. 2-Fluorobiphenyl		68	%	8270C	2/10/99	2/10/99	MA	5552	5680	35-113
Surr. 2,4,6-Tribromophenol		74	%	8270C	2/10/99	2/10/99	MA	5552	5680	66-124
Surr. Terphenyl-d14		111	%	8270C	2/10/99	2/10/99	MA	5552	5680	59-119

Date: 2/24/99

Order ID Number: 990200092/93 Page #7

Project Name: Shell Westgate

Project Location: Hobbs, NM Sample Number: 118338

Field Code: GMW 11 63-65'

Parameter	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin	<0.02	mg/kg	8081	2/10/99	2/13/99	SH			0.02
Chlordane	<0.10	mg/kg	8081	2/10/99	2/13/99	SH			0.1
DDT	<0.03	mg/kg	8081	2/10/99	2/13/99	SH			0.03
Dieldrin	<0.02	mg/kg	8081	2/10/99	2/13/99	SH			0.02
Endosulfan	<0.03	mg/kg	8081	2/10/99	2/13/99	SH			0.03
Endrin	<0.05	mg/kg	8081	2/10/99	2/13/99	SH			0.05
Heptachlor	<0.03	mg/kg	8081	2/10/99	2/13/99	SH			0.03
PCB's	<0.1	mg/kg	8082	2/16/99	2/16/99	CS	5551	5677	0.1
Arsenic	<0.50	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	0.50
Barium	11	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	0.50
Cadmium	0.16	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	0.50
Chromium	3.3	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	0.50
Lead	<0.50	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5640	0.50
Total Mercury	<0.10	mg/kg	7471A	2/8/99	2/9/99	BP	5516	5638	0.10
Selenium	<0.50	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	0.50
Silver	6.1	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	0.50
Uranium	<5.0	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	5.0
Copper	1.9	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	1.0
Iron	1,880	mg/kg	6010B	2/5/99	2/11/99	RR	5517	5640	5.0
Manganese	17	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	1.0
Zinc	8.4	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	2.0
Aluminum	1,640	mg/kg	6010B	2/5/99	2/11/99	RR	5517	5640	10
Boron	49	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	1.0
Cobalt	1.9	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	1.0
Molybdenum	<1.0	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	1.0
Nickel	9.9	mg/kg	6010B	2/5/99	2/8/99	RR	5517	5639	0.50
Cyanide	<0.20	mg/kg	SM 4500CN C,E	2/11/99	2/11/99	MD	5518	5641	0.20
Fluoride	0.98	mg/kg	300.0	2/8/99	2/8/99	JS	5519	5642	0.1
Nitrate	1.4	mg/kg	300.0	2/8/99	2/8/99	JS	5519	5642	0.1
Chloride	14	mg/kg	300.0	2/8/99	2/8/99	JS	5519	5642	0.5
Sulfate	13	mg/kg	300.0	2/8/99	2/8/99	JS	5519	5642	0.5
TDS	210	mg/kg	160.1	2/8/99	2/8/99	SA	5520	5643	10
pH	8.9	s.u.	150.1	2/8/99	2/8/99	RS	5521	5644	---
TRPHC	<10.0	mg/kg	418.1	2/5/99	2/5/99	MF	5455	5568	10
Total Phenol	<0.50	mg/kg	SM 5530 A,D	2/10/99	2/10/99	SA	5522	5645	0.50
Total Radium	2.35	pCi/gm	901.1M		2/10/99	MD			

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/24/99
Page: #8

Sample Number: 118339

Order ID Number: 990200092/93
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: Field Blank

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		2/9/99	JG		5679	5
Acrylonitrile		<5	ug/L	S-8260B		2/9/99	JG		5679	5
Benzene		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Carbon tetrachloride		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Chlorobenzene		<1	ug/L	S-8260B		2/9/99	JG		5679	1
1,2-dichloroethane		<1	ug/L	S-8260B		2/9/99	JG		5679	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		2/9/99	JG		5679	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		2/9/99	JG		5679	1
1,1,2-trichloroethane		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Chloroform		<1	ug/L	S-8260B		2/9/99	JG		5679	1
ichlorobenzene		<2	ug/L	S-8260B		2/9/99	JG		5679	2
1,1-dichloroethylene		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Dichloropropenes		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Ethylbenzene		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Bromodichloromethane		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Bromomethane		<5	ug/L	S-8260B		2/9/99	JG		5679	5
Chloromethane		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Dichloromethane		<5	ug/L	S-8260B		2/9/99	JG		5679	5
Trichlorofluoromethane		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Tetrachloroethylene		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Toluene		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Trichloroethylene		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Vinyl chloride		<2	ug/L	S-8260B		2/9/99	JG		5679	2
m,p-xylene		<1	ug/L	S-8260B		2/9/99	JG		5679	1
o-xylene		<1	ug/L	S-8260B		2/9/99	JG		5679	1
1,1-dichloroethane		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Ethylene dibiomide		<1	ug/L	S-8260B		2/9/99	JG		5679	1
cis-1,2-dichloroethylene		<1	ug/L	S-8260B		2/9/99	JG		5679	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Methylene chloride		<5	ug/L	S-8260B		2/9/99	JG		5679	5
Surr. Dibromofluoromethane		100	%	S-8260B		2/9/99	JG		5679	72-130
Surr. Toluene-d8		101	%	S-8260B		2/9/99	JG		5679	77-127
Surr. 4-Bromofluorobenzene		98	%	S-8260B		2/9/99	JG		5679	72-131

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/24/99
Page: #9

Sample Number: 118340

Order ID Number: 990200092/93
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: Trip Blank

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B		2/9/99	JG		5679	5
Acrylonitrile		<5	ug/L	S-8260B		2/9/99	JG		5679	5
Benzene		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Carbon tetrachloride		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Chlorobenzene		<1	ug/L	S-8260B		2/9/99	JG		5679	1
1,2-dichloroethane		<1	ug/L	S-8260B		2/9/99	JG		5679	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B		2/9/99	JG		5679	1
1,1,1-trichloroethane		<1	ug/L	S-8260B		2/9/99	JG		5679	1
1,1,2-trichloroethene		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Chloroform		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Dichlorobenzene		<2	ug/L	S-8260B		2/9/99	JG		5679	2
1,1-dichloroethylene		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Dichloropropenes		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Ethylbenzene		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Bromodichloromethane		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Bromomethane		<5	ug/L	S-8260B		2/9/99	JG		5679	5
Chloromethane		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Dichlorodifluoromethane		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Dichloromethane		<5	ug/L	S-8260B		2/9/99	JG		5679	5
Trichlorofluoromethane		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Tetrachloroethylene		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Toluene		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Trichloroethylene		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Vinyl chloride		<2	ug/L	S-8260B		2/9/99	JG		5679	2
m,p-xylene		<1	ug/L	S-8260B		2/9/99	JG		5679	1
o-xylene		<1	ug/L	S-8260B		2/9/99	JG		5679	1
1,1-dichloroethane		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Ethylene dibiomide		<1	ug/L	S-8260B		2/9/99	JG		5679	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B		2/9/99	JG		5679	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B		2/9/99	JG		5679	1
Methylene chloride		<5	ug/L	S-8260B		2/9/99	JG		5679	5
Surr. Dibromofluoromethane		101	%	S-8260B		2/9/99	JG		5679	72-130
Surr. Toluene-d8		101	%	S-8260B		2/9/99	JG		5679	77-127
Surr. 4-Bromofluorobenzene		99	%	S-8260B		2/9/99	JG		5679	72-131

Quality Control Report
Blanks

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/24/99
Page #10

Order ID Number: 990200092/93
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Result	Units	Limit	Analyzed	Prep Batch #	Run Batch #
Acrolein		<125	ug/kg	125	2/8/99		5678
Acrylonitrile		<125	ug/kg	125	2/8/99		5678
Benzene		<25	ug/kg	25	2/8/99		5678
Carbon tetrachloride		<25	ug/kg	25	2/8/99		5678
Chlorobenzene		<25	ug/kg	25	2/8/99		5678
1,2-dichloroethane		<25	ug/kg	25	2/8/99		5678
1,1,2,2-tetrachloroethane		<25	ug/kg	25	2/8/99		5678
1,1,1-trichloroethane		<25	ug/kg	25	2/8/99		5678
1,1,2-trichloroethane		<25	ug/kg	25	2/8/99		5678
1,1,2-trichloroethylene		<25	ug/kg	25	2/8/99		5678
Chloroform		<25	ug/kg	25	2/8/99		5678
Dichlorobenzene		<50	ug/kg	50	2/8/99		5678
1,1-dichloroethylene		<25	ug/kg	25	2/8/99		5678
Dichloropropenes		<25	ug/kg	25	2/8/99		5678
Ethylbenzene		<25	ug/kg	25	2/8/99		5678
Bromodichloromethane		<25	ug/kg	25	2/8/99		5678
Bromomethane		<125	ug/kg	125	2/8/99		5678
Chloromethane		<25	ug/kg	25	2/8/99		5678
Dichlorodifluoromethane		<25	ug/kg	25	2/8/99		5678
Dichloromethane		<125	ug/kg	125	2/8/99		5678
Trichlorofluoromethane		<25	ug/kg	25	2/8/99		5678
Tetrachloroethylene		<25	ug/kg	25	2/8/99		5678
Toluene		<25	ug/kg	25	2/8/99		5678
Trichloroethylene		<25	ug/kg	25	2/8/99		5678
Vinyl chloride		<50	ug/kg	50	2/8/99		5678
m,p-xylene		<25	ug/kg	25	2/8/99		5678
o-xylene		<25	ug/kg	25	2/8/99		5678
1,1-dichloroethane		<25	ug/kg	25	2/8/99		5678
Ethylene dibromide		<25	ug/kg	25	2/8/99		5678
cis-1,2-dichlorethylene		<25	ug/kg	25	2/8/99		5678
trans-1,2-dichloroethylene		<25	ug/kg	25	2/8/99		5678
Methylene chloride		<125	ug/kg	125	2/8/99		5678
Surr. Dibromofluoromethane		99	%	72-130	2/8/99		5678
Surr. Toluene-d8		104	%	77-127	2/8/99		5678
Surr. 4-Bromofluorobenzene		99	%	72-131	2/8/99		5678

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/24/99
Page #11

Order ID Number: 990200092/93
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	2/9/99		5679
Acrylonitrile		<5	ug/L	5	2/9/99		5679
Benzene		<1	ug/L	1	2/9/99		5679
Carbon tetrachloride		<1	ug/L	1	2/9/99		5679
Chlorobenzene		<1	ug/L	1	2/9/99		5679
1,2-dichloroethane		<1	ug/L	1	2/9/99		5679
1,1,2,2-tetrachloroethane		<1	ug/L	1	2/9/99		5679
1,1,1-trichloroethane		<1	ug/L	1	2/9/99		5679
1,1,2-trichloroethane		<1	ug/L	1	2/9/99		5679
1,1,2-trichloroethylene		<1	ug/L	1	2/9/99		5679
Chloroform		<1	ug/L	1	2/9/99		5679
Dichlorobenzene		<2	ug/L	2	2/9/99		5679
1,1-dichloroethylene		<1	ug/L	1	2/9/99		5679
Dichloropropenes		<1	ug/L	1	2/9/99		5679
Ethylbenzene		<1	ug/L	1	2/9/99		5679
Bromodichloromethane		<1	ug/L	1	2/9/99		5679
Bromomethane		<5	ug/L	5	2/9/99		5679
Chloromethane		<1	ug/L	1	2/9/99		5679
Dichlorodifluoromethane		<1	ug/L	1	2/9/99		5679
Dichloromethane		<5	ug/L	5	2/9/99		5679
Trichlorofluoromethane		<1	ug/L	1	2/9/99		5679
Tetrachloroethylene		<1	ug/L	1	2/9/99		5679
Toluene		<1	ug/L	1	2/9/99		5679
Trichloroethylene		<1	ug/L	1	2/9/99		5679
Vinyl chloride		<2	ug/L	2	2/9/99		5679
m,p-xylene		<1	ug/L	1	2/9/99		5679
o-xylene		<1	ug/L	1	2/9/99		5679
1,1-dichloroethane		<1	ug/L	1	2/9/99		5679
Ethylene dibromide		<1	ug/L	1	2/9/99		5679
cis-1,2-dichlorethylene		<1	ug/L	1	2/9/99		5679
trans-1,2-dichloroethylene		<1	ug/L	1	2/9/99		5679
Methylene chloride		<5	ug/L	5	2/9/99		5679
Surr. Dibromofluoromethane		96	%	72-130	2/9/99		5679
Surr. Toluene-d8		101	%	77-127	2/9/99		5679
Surr. 4-Bromofluorobenzene		95	%	72-131	2/9/99		5679

Order ID Number:	990200092/93			Date:	2/24/99	Page	#12
Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Benzidine		<2.5	mg/kg	2.5	02/10/99	5552	5680
Hexachlorobenzene		<0.25	mg/kg	0.25	02/10/99	5552	5680
Pentachlorobenzene		<0.25	mg/kg	0.25	02/10/99	5552	5680
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	02/10/99	5552	5680
Hexachloroethane		<0.25	mg/kg	0.25	02/10/99	5552	5680
2,4-dichlorphenol		<1.25	mg/kg	1.25	02/10/99	5552	5680
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	02/10/99	5552	5680
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	02/10/99	5552	5680
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	02/10/99	5552	5680
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	02/10/99	5552	5680
bis (chloromethyl) ether		<1.25	mg/kg	1.25	02/10/99	5552	5680
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	02/10/99	5552	5680
2,4-dinitrotoluene		<0.25	mg/kg	0.25	02/10/99	5552	5680
Diphenylhydrazine		<1.25	mg/kg	1.25	02/10/99	5552	5680
Hexachlorobutadiene		<0.25	mg/kg	0.25	02/10/99	5552	5680
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	02/10/99	5552	5680
Isophorone		<1.25	mg/kg	1.25	02/10/99	5552	5680
Nitrobenzene		<0.25	mg/kg	0.25	02/10/99	5552	5680
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	02/10/99	5552	5680
2,4-dinitrophenols		<1.25	mg/kg	1.25	02/10/99	5552	5680
n-nitrosodiethylamine		<0.25	mg/kg	0.25	02/10/99	5552	5680
N-nitrosodimethylamine		<0.25	mg/kg	0.25	02/10/99	5552	5680
N-nitrosodibutylamine		<1.25	mg/kg	1.25	02/10/99	5552	5680
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	02/10/99	5552	5680
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	02/10/99	5552	5680
Pentachlorophenol		<1.25	mg/kg	1.25	02/10/99	5552	5680
Dibutyl phthalate		<0.25	mg/kg	0.25	02/10/99	5552	5680
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	02/10/99	5552	5680
Diethyl phthalate		<0.25	mg/kg	0.25	02/10/99	5552	5680
Dimethyl phthalate		<0.25	mg/kg	0.25	02/10/99	5552	5680
Anthracene		<0.25	mg/kg	0.25	02/10/99	5552	5680
3,4-benzofluoranthene		<0.25	mg/kg	0.25	02/10/99	5552	5680
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	02/10/99	5552	5680
Fluoranthene		<0.25	mg/kg	0.25	02/10/99	5552	5680
Fluorene		<0.25	mg/kg	0.25	02/10/99	5552	5680
Phenanthrene		<0.25	mg/kg	0.25	02/10/99	5552	5680
Pyrene		<0.25	mg/kg	0.25	02/10/99	5552	5680
Naphthalene		<0.25	mg/kg	0.25	02/10/99	5552	5680
1-methylnaphthalene		<0.25	mg/kg	0.25	02/10/99	5552	5680
2-methylnaphthalene		<0.25	mg/kg	0.25	02/10/99	5552	5680
Benzo-a-pyrene		<0.25	mg/kg	0.25	02/10/99	5552	5680
Phenol		<0.25	mg/kg	0.25	02/10/99	5552	5680
Surr. 2-Fluorophenol		77	%	25-121	02/10/99	5552	5680
Surr. Phenol-d6		68	%	24-113	02/10/99	5552	5680
Surr. Nitroobenzene-d5		68	%	23-120	02/10/99	5552	5680
Surr. 2-Fluorobiphenyl		81	%	30-115	02/10/99	5552	5680
Surr. 2,4,6-Tribromophenol		81	%	19-122	02/10/99	5552	5680
Surr. Terphenyl-d14		117	%	28-137	02/10/99	5552	5680

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Order ID Number: 990200092/93
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 02/24/99
Page #13

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
PCB		<0.1	mg/kg	0.1	02/16/99	5551	5677
Arsenic		<0.50	mg/kg	0.50	02/08/99	5517	5639
Barium		<0.50	mg/kg	0.50	02/08/99	5517	5639
Cadmium		<0.10	mg/kg	0.10	02/08/99	5517	5639
Chromium		<0.50	mg/kg	0.50	02/08/99	5517	5639
Lead		<0.50	mg/kg	0.50	02/08/99	5517	5639
Total Mercury		<0.10	mg/kg	0.10	02/09/99	5516	5638
Selenium		<0.50	mg/kg	0.50	02/08/99	5517	5639
Silver		<0.50	mg/kg	0.50	02/08/99	5517	5639
Uranium		<5.0	mg/kg	5.0	02/08/99	5517	5639
Copper		<1.0	mg/kg	1.0	02/08/99	5517	5639
Iron		<5.0	mg/kg	5.0	02/11/99	5517	5640
Manganese		<1.0	mg/kg	1.0	02/08/99	5517	5639
Zinc		<2.0	mg/kg	2.0	02/08/99	5517	5639
Aluminum		<10	mg/kg	10	02/11/99	5517	5640
Boron		<1.0	mg/kg	1.0	02/08/99	5517	5639
Cobalt		<0.50	mg/kg	0.50	02/08/99	5517	5639
Molybdenum		<1.0	mg/kg	1.0	02/08/99	5517	5639
Nickel		<0.50	mg/kg	0.50	02/08/99	5517	5639
Cyanide		<0.20	mg/kg	0.20	02/11/99	5518	5641
Fluoride		<0.1	mg/kg	0.1	02/08/99	5519	5642
Nitrate		<0.2	mg/kg	0.2	02/08/99	5519	5642
Chloride		<0.5	mg/kg	0.5	02/08/99	5519	5642
Sulfate		<0.5	mg/kg	0.5	02/08/99	5519	5642
Total Dissolved Solids		<10	mg/kg	10	02/08/99	5520	5643
TRPHC		<10.0	mg/kg	10	02/05/99	5455	5568
Total Phenols		<0.50	mg/kg	0.50	02/10/99	5522	5645

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/24/99
Page #14

Order ID Number: 990200092/93
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	113	113	2/8/99	5678
1,1-Dichloroethene		100	ug/L	90	90	2/8/99	5678
Chloroform		100	ug/L	101	101	2/8/99	5678
1,2-Dichloropropane		100	ug/L	102	102	2/8/99	5678
Toluene		100	ug/L	98	98	2/8/99	5678
Chlorobenzene		100	ug/L	100	100	2/8/99	5678
Ethylbenzene		100	ug/L	99	99	2/8/99	5678
Surr. Dibromofluoromethane		100	ug/L	96	96	2/8/99	5678
Surr. Toluene-d8		100	ug/L	104	104	2/8/99	5678
Surr. 4-Bromofluorobenzene		100	ug/L	96	96	2/8/99	5678
Vinyl chloride		100	ug/L	103	103	2/9/99	5679
1,1-Dichloroethene		100	ug/L	103	103	2/9/99	5679
Chloroform		100	ug/L	104	104	2/9/99	5679
1,2-Dichloropropane		100	ug/L	102	102	2/9/99	5679
Toluene		100	ug/L	105	105	2/9/99	5679
Chlorobenzene		100	ug/L	102	102	2/9/99	5679
Ethylbenzene		100	ug/L	102	102	2/9/99	5679
Surr. Dibromofluoromethane		100	ug/L	100	100	2/9/99	5679
Surr. Toluene-d8		100	ug/L	98	98	2/9/99	5679
Surr. 4-Bromofluorobenzene		100	ug/L	99	99	2/9/99	5679

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/24/99
Page #15

Order ID Number: 990200092/93
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Phenol		80	mg/L	89	111	2/10/99	5680
1,4-Dichlorobenzene		80	mg/L	81	101	2/10/99	5680
2-nitrophenol		80	mg/L	82	103	2/10/99	5680
2,4-Dichlorophenol		80	mg/L	81	101	2/10/99	5680
Hexachlorobutadiene		80	mg/L	75	94	2/10/99	5680
4-Chloro-3-methylphenol		80	mg/L	79	99	2/10/99	5680
2,4,6-Trichlorophenol		80	mg/L	88	110	2/10/99	5680
Acenaphthene		80	mg/L	81	101	2/10/99	5680
n-Nitrosodiphenylamine		80	mg/L	75	94	2/10/99	5680
Pentachlorophenol		80	mg/L	87	109	2/10/99	5680
Fluoranthene		80	mg/L	75	94	2/10/99	5680
Di-n-octylphthalate		80	mg/L	77	96	2/10/99	5680
Benzo(a)pyrene		80	mg/L	81	101	2/10/99	5680
Surr. 2-Fluorophenol		80	mg/L	88	110	2/10/99	5680
Surr. Phenol-d6		80	mg/L	92	115	2/10/99	5680
Surr. Nitroobenzene-d5		80	mg/L	82	103	2/10/99	5680
Surr. 2-Fluorobiphenyl		80	mg/L	85	106	2/10/99	5680
Surr. 2,4,6-Tribromophenol		80	mg/L	90	113	2/10/99	5680
Surr. Terphenyl-d14		80	mg/L	79	99	2/10/99	5680

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/24/99
Page #16
Order ID Number: 990200092/93

Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
PCB		0.40	mg/L	0.45	113	02/16/99	5677
Arsenic		1.0	mg/L	0.98	98	02/08/99	5639
Barium		1.0	mg/L	0.99	99	02/08/99	5639
Cadmium		1.0	mg/L	1.05	105	02/08/99	5639
Chromium		1.0	mg/L	1.05	105	02/08/99	5639
Lead		1.0	mg/L	1.05	105	02/08/99	5639
Total Mercury		5.0	mg/L	4.5	90	02/09/99	5638
Selenium		1.0	mg/L	1.05	105	02/08/99	5639
Silver		0.20	mg/L	0.20	100	02/08/99	5639
Uranium		1.0	mg/L	1.0	100	02/08/99	5639
Copper		1.0	mg/L	1.0	100	02/08/99	5639
Iron		1.0	mg/L	1.0	100	02/11/99	5640
Manganese		1.0	mg/L	1.0	100	02/08/99	5639
Zinc		1.0	mg/L	1.0	100	02/08/99	5639
Aluminum		1.0	mg/L	1.0	100	02/11/99	5640
Boron		1.0	mg/L	0.99	99	02/08/99	5639
Cobalt		1.0	mg/L	1.0	100	02/08/99	5639
Molybdenum		1.0	mg/L	0.96	96	02/08/99	5639
Nickel		1.0	mg/L	1.0	100	02/08/99	5639
Cyanide		0.120	mg/L	0.115	96	02/11/99	5641
Fluoride		2.5	mg/L	2.325	93	02/08/99	5642
Nitrate		5.0	mg/L	4.940	99	02/08/99	5642
Chloride		12.5	mg/L	12.94	104	02/08/99	5642
Sulfate		12.5	mg/L	12.575	101	02/08/99	5642
TDS		1000	mg/L	997	100	02/08/99	5643
pH		7.0	s.u.	7.0	100	02/08/99	5644
TRPHC		100	mg/L	104	104	02/05/99	5568
Total Phenol		0.80	mg/L	0.761	95	02/10/99	5645

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/24/99
Page #17

Order ID Number: 990200092/93
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/kg	<25	100	98	98	100	99	99	1	2/8/99		5678
Benzene		ug/kg	<25	100	109	109	100	111	111	2	2/8/99		5678
Trichloroethene		ug/kg	<25	100	109	109	100	113	113	4	2/8/99		5678
Toluene		ug/kg	<25	100	109	109	100	111	111	2	2/8/99		5678
Chlorobenzene		ug/kg	<25	100	106	106	100	109	109	3	2/8/99		5678
Surr. Dibromofluoromethane		%	96	100	98	98	100	96	96	2	2/8/99		5678
Surr. Toluene-d8		%	103	100	102	102	100	102	102	0	2/8/99		5678
Surr. 4-Bromofluorobenzene		%	99	100	99	99	100	98	98	1	2/8/99		5678
1,1-Dichloroethene	*	ug/L	<1	100	104	104	100	104	104	0	2/9/99		5679
Benzene	*	ug/L	<1	100	107	107	100	105	105	2	2/9/99		5679
Trichloroethene	*	ug/L	<1	100	104	104	100	100	100	4	2/9/99		5679
Toluene	*	ug/L	<1	100	105	105	100	103	103	2	2/9/99		5679
Chlorobenzene	*	ug/L	<1	100	109	109	100	107	107	2	2/9/99		5679
Surr. Dibromofluoromethane		%	96	100	106	106	100	105	105	1	2/9/99		5679
Surr. Toluene-d8		%	101	100	100	100	100	99	99	1	2/9/99		5679
Surr. 4-Bromofluorobenzene		%	95	100	101	101	100	101	101	0	2/9/99		5679
Phenol	*	mg/kg	<0.25	100	91	91	100	80	80	13	2/10/99	5552	5680
2-Chlorophenol	*	mg/kg	<1.25	100	87	87	100	77	77	12	2/10/99	5552	5680
1,4-Dichlorobenzene	*	mg/kg	<0.25	100	74	74	100	68	68	8	2/10/99	5552	5680
n-Nitrosodi-n-propylamine	*	mg/kg	<0.25	100	78	78	100	67	67	15	2/10/99	5552	5680
1,2,4-trichlorobenzene	*	mg/kg	<0.25	100	68	68	100	60	60	13	2/10/99	5552	5680
4-Chloro-3-methylphenol	*	mg/kg	<0.25	100	83	83	100	78	78	6	2/10/99	5552	5680
Acenaphthene	*	mg/kg	<0.25	100	83	83	100	77	77	8	2/10/99	5552	5680
4-Nitrophenol	*	mg/kg	<0.25	100	37	37	100	39	39	5	2/10/99	5552	5680
2,4-Dinitrotoluene	*	mg/kg	<0.25	100	100	100	100	93	93	7	2/10/99	5552	5680
Pentachlorophenol	*	mg/kg	<0.25	100	84	84	100	80	80	5	2/10/99	5552	5680
Pyrene	*	mg/kg	<0.25	100	80	80	100	84	84	5	2/10/99	5552	5680
Surr. 2-Fluorophenol		%	77	100	68	68	100	63	63	8	2/10/99	5552	5680
Surr. Phenol-d6		%	68	100	84	84	100	76	76	10	2/10/99	5552	5680
Surr. Nitroobenzene-d5		%	68	100	75	75	100	67	67	11	2/10/99	5552	5680
Surr. 2-Fluorobiphenyl		%	81	100	80	80	100	72	72	11	2/10/99	5552	5680
Surr. 2,4,6-Tribromophenol		%	81	100	99	99	100	96	96	3	2/10/99	5552	5680
Surr. Terphenyl-d14		%	117	100	92	92	100	96	96	4	2/10/99	5552	5680

*LCS's used for spike and spike duplicate.

Order ID Number: 990200092/93
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 2/24/99
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Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
PCB		mg/kg	<0.1	0.5	0.52	114	0.5	0.53	106	2	2/16/99	5551	5677
Arsenic		mg/kg	<0.50	200	171	86	200	172	86	1	2/8/99	5517	5639
Barium		mg/kg	26	200	193	84	200	206	103	7	2/8/99	5517	5639
Cadmium		mg/kg	0.61	200	178	89	200	184	92	3	2/8/99	5517	5639
Chromium		mg/kg	2.6	200	189	190	200	199	98	5	2/8/99	5517	5639
Lead		mg/kg	<0.50	200	180	85	200	188	94	4	2/8/99	5517	5639
Total Mercury		mg/kg	<0.10	2.5	2.1	84	2.5	2.2	88	5	2/9/99	5516	5638
Selenium		mg/kg	<0.50	200	178	89	200	187	94	5	2/8/99	5517	5639
Silver		mg/kg	7.6	40	43	89	40	45	94	5	2/8/99	5517	5639
Uranium		mg/kg	<5.0	200	189	95	200	190	95	1	2/8/99	5517	5639
Copper		mg/kg	5.4	200	190	92	200	195	95	3	2/8/99	5517	5639
Iron		mg/kg	1,100	1000	2280	118	2350	2436	57	7	2/11/99	5517	5640
Manganese		mg/kg	10	200	193	92	200	204	97	6	2/8/99	5517	5639
Zinc		mg/kg	15	200	194	90	200	193	89	1	2/8/99	5517	5639
Aluminum		mg/kg	1,300	1000	2120	82	1000	2230	93	5	2/11/99	5517	5640
Boron		mg/kg	54	2000	1770	86	2000	1820	88	3	2/8/99	5517	5639
Cobalt		mg/kg	3.6	200	180	88	200	184	90	2	2/8/99	5517	5639
Molybdenum		mg/kg	1.3	20	18	84	20	19	89	5	2/8/99	5517	5639
Nickel		mg/kg	30	200	183	77	200	188	79	3	2/8/99	5517	5639
Cyanide		mg/kg	<0.20	3.0	2.64	88	3.0	2.64	2.64	0	2/11/99	5518	5641
Fluoride		mg/kg	0.98	5.0	5.70	94	5.0	5.66	94	1	2/8/99	5519	5642
Nitrate		mg/kg	1.4	10	10.46	91	10	10.37	90	1	2/8/99	5519	5642
Chloride		mg/kg	14	25	38.90	100	25	39.13	101	1	2/8/99	5519	5642
Sulfate		mg/kg	13	25	38.05	100	25	38.34	101	1	2/8/99	5519	5642
TRPHC		mg/kg	<10	250	230	92	250	248	99	8	2/5/99	5545	5568
Total Phenol		mg/kg	<0.50	5.0	5.56	111	5.0	5.14	103	8	2/10/99	5522	5645

Quality Control Report
Duplicate

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/24/99
Page #19

Order ID Number: 990200092/93
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Duplicate Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	7.9	7.9	0	2/8/99	5521	5644
TDS		mg/kg	210	200	5	2/8/99	5520	5643

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-
Attn: Nell Green

Report Date: *16-Feb-99*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Our Lab#: MEL99-01604 **Your Sample ID:** 118337
Date Logged In: 2/9/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:**
Project #: **Date Submitted to Lab:** 2/9/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/4/99

EPA Method	Analyst	Prep Date	Analysis Date
160.3	DJF		2/10/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	93.8 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	2/10/99	2/13/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 mg/kg	0.02
57-74-9	Chlordane(Total)	< 0.10 mg/kg	0.1
50-29-3	4,4'-DDT	< 0.03 mg/kg	0.03
60-57-1	Dieldrin	< 0.02 mg/kg	0.02
959-98-8	Endosulfan I	< 0.03 mg/kg	0.03
72-20-8	Endrin	< 0.05 mg/kg	0.05
76-44-8	Heptachlor	< 0.03 mg/kg	0.03

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PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-01604	8081	Decachlorobiphenyl (Surr)	86 %R	41	129
MEL99-01604	8081	Tetrachloro-m-xylene (Surr)	63 %R	27	119

End of Report

Report Approved By: Wade E. Bayer

Wade E. Bayer

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Your Sample ID: 118337

Lab Number MEL99-01604

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-
Attn: Nell Green

Report Date: *16-Feb-99*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Our Lab#: MEL99-01605 **Your Sample ID:** 118338
Date Logged In: 2/9/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:**
Project #: **Date Submitted to Lab:** 2/9/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/4/99

EPA Method	Analyst	Prep Date	Analysis Date
160.3	DJF		2/10/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	90.6 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	2/10/99	2/13/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 mg/kg	0.02
57-74-9	Chlordane(Total)	< 0.10 mg/kg	0.1
50-29-3	4,4'-DDT	< 0.03 mg/kg	0.03
60-57-1	Dieldrin	< 0.02 mg/kg	0.02
959-98-8	Endosulfan I	< 0.03 mg/kg	0.03
72-20-8	Endrin	< 0.05 mg/kg	0.05
76-44-8	Heptachlor	< 0.03 mg/kg	0.03

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-01605	8081	Decachlorobiphenyl (Surr)	92 %R	41	129
MEL99-01605	8081	Tetrachloro-m-xylene (Surr)	67 %R	27	119

End of Report

Report Approved By: Wade E. Bayer

Wade E. Bayer

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Your Sample ID: 118338

Lab Number MEL99-01605

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PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

Mitchell Davis and Associates. Inc.

Post Office Box 606
Gramercy, LA 70052-0606
1-800-679-9874 Phone: 225-869-7000 Fax: (225) 869-7002

Mitchell Davis and Associates, Inc.

Laboratory Analysis Report

Prepared For:

Trace Analysis, Inc.
Nell Green
6701 Aberdeen Ave., Ste. 9
Lubbock, TX
Phone: 806-794-1296
Fax: 806-794-1298

Quality Assurance Review

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Gramercy, LA 70052-0606
1-800-679-9874 Phone: 225-869-7000 Fax: (225) 869-7002

Tracking Number:	DAV-99-0202	**P.O. Number:**	Verbal
Client ID:	118337	**Davis Sample ID:**	DAV-99-0505
Date Sampled:	2/4/99	**Date Received:**	2/9/99
Time Sampled:	N/A	**Time Received:**	0945
Type of Sample:	Solid	**Date of Report:**	2/14/99

Analysis Description	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	<1.83	N/A	pCi/gm	<0.07	N/A	Bq/gm	EPA 901.1M	2/10/99 1139	md
Ra-228	<0.55	N/A	pCi/gm	<0.02	N/A	Bq/gm	EPA 901.1M	2/10/99 1139	md
Pb-210	1.25	1.41	pCi/gm	0.05	0.05	Bq/gm	EPA 901.1M	2/10/99 1139	md
Total Activity	3.51	N/A	pCi/gm	0.13	N/A	Bq/gm	EPA 901.1M	2/10/99 1139	md

Notes:

Quality Assurance Review

Mitchell Davis and Associates, Inc. assumes no liability for the use or interpretation of any analytical results other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Mitchell Davis and Associates. Inc.

Post Office Box 606
Gramercy, LA 70052-0606
1-800-679-9874 Phone: 225-869-7000 Fax: (225) 869-7002

Tracking Number:	DAV-99-0202	**P.O. Number:**	Verbal
Client ID:	118338	**Davis Sample ID:**	DAV-99-0506
Date Sampled:	2/4/99	**Date Received:**	2/9/99
Time Sampled:	N/A	**Time Received:**	0945
Type of Sample:	Solid	**Date of Report:**	2/14/99

Analysis Description	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	2.35	1.12	pCi/gm	0.09	0.04	Bq/gm	EPA 901.1M	2/10/99 1033	md
Ra-228	<0.39	N/A	pCi/gm	<0.01	N/A	Bq/gm	EPA 901.1M	2/10/99 1033	md
Pb-210	<1.27	N/A	pCi/gm	<0.05	N/A	Bq/gm	EPA 901.1M	2/10/99 1033	md
Total Activity	7.41	N/A	pCi/gm	0.27	N/A	Bq/gm	EPA 901.1M	2/10/99 1033	md

Notes:

Quality Assurance Review

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Gramercy, LA 70052-0606
1-800-679-9874 Phone: 225-869-7000 Fax: (225) 869-7002

Notes:

Comments:

1. Soil and Sludge analysis results are reported on a wet basis or as received basis unless otherwise indicated.
2. The data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
3. Modified analysis procedures are procedures that are modified to meet certain specifications. An example would be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix.
4. Derived Air Concentrations and Effluent Release Concentrations are obtained from 10 CFR 20 Appendix B.
5. Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring decay chains and other prominent radioactive isotopes. Total activity may be lower than actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of isotopes that emit solely alpha or beta radiation.
6. Ra-228 is determined via secular equilibrium with its daughter, Actinium 228. (Gamma Spectroscopy only)
7. U-238 is determined via secular equilibrium with its daughter, Thorium 234. (Gamma Spectroscopy only).
8. All Gamma Spectroscopy was performed using high purity germanium detectors (HPGE).

Method References:

1. EPA 600/4-80-032, Prescribed Procedures for the Measurement of Radioactivity in Drinking Water, August 1980.
2. Standard Methods for the Examination of Water and Waste Water, 18th, 1992.
3. EPA SW-846, Test Methods for Evaluating Solid Waste, Third Edition, (9/86). (Updated through 1995)
4. EPA 600/4/79-020, Methods for Chemical Analysis of Water and Waste, March 1983.
5. HASL 300

Definitions:

1.	BDL	Analyte not detected because the value was below the detection limit.
2.	ND	Not detected above the detection limit.
3.	Detection Limit	The minimum amount of the analyte that can be detected utilizing the specific analysis.
4.	B	Method Blank
5.	D	Method Duplicate
6.	MS	Matrix Spike
7.	S	Spike
8.	RS	Reference Spike
9.	SC	Subcontracted to qualified laboratory
10.	NR	Not Referenced

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118337-40

Page ____ of ____

6701 Aberdeen Avenue, Ste 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 92 / 93

Company Name: BBC International, Inc.
Phone #: (505) 397-6388
Address: (Street, City, Zip) 1324 W. Marland, Hobbs, NM 88240
Fax #: (505) 397-0397
Contact Person: Cliff P. Brunson
Invoice to: (If different from above) Shell E & P Technology Co. ATTN: Wayne Hamilton
Project #:
Project Name: Shell Westgate
Project Location: Hobbs, New Mexico
Sampler Signature: Shawn E. Hall

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
118337	GMW 11 19-21'	6	5 4oz WCCC		✓								2/4/99	9:55a
38	GMW 11 63-65'	6	5 4oz 1 VOA		✓								2/4/99	2:30p
39	Field Blank	2	VOA	✓									2/4/99	
40	Trip Blank	2	VOA	✓									2/4/99	

ANALYSIS REQUEST
(Circle or Specify Method No.)

MTBE 8021B/602	
BTEX 8021B/602 8260	
TPH 418.1/TX1005	✓
PAH 8270C	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC-MS Vol. 8260B/624	✓
GC/MS Semi. Vol. 8270C/625	
PCB's 8082/608	
Pesticides 8081A/608	
BOD, TSS, pH	
See Attached (Full Suite)	✓
Total Chlorides (300-1)	✓
Total Metals (6010)	
Turn Around Time if different from standard	
Hold	

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Shawn E. Hall	2/4/99	2:30			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: Vicki Wrather	Date: 2/5/99	Time: 9:00 AM

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

LAB USE ONLY

Intact (Y) / N
Headspace Y / N
Temp 3 °
Log-in Review MS

REMARKS:

Agreed Upon Turnaround

Carrier # BUS 901984683G

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/26/99
Page: # 1

Project Name: Shell Westgate
Project Location: Hobbs, NM
Order ID Number: 9902000145/146

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
118541	GSB 17 3-5'	Soil	02/08/99	9:30 a.m.	02/09/99
[illegible]8542	GSB 17 38-40'	Soil	02/08/99	11:38 a.m.	02/09/99
[illegible]8543	GSB 16 3-5'	Soil	02/08/99	2:06 p.m..	02/09/99
[illegible]8544	GSB 16 38-40'	Soil	02/08/99	3:45 p.m.	02/09/99
3545	Field Blank	Water	02/08/99		02/09/99
3546	Trip Blank	Water	02/08/99		02/09/99

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

This report shall not be reproduced except in its entirety, without written approval of the laboratory.

These results represent only the samples received in the laboratory.

This report consists of a total of 38 pages.

*Semi-volatile 118543 ERL due to hydrocarbons present.

*Pesticide 118543 ERL due to hydrocarbons present.

Dr. Blair Leftwich
Director

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/26/99
Page # 2

Order ID Number: 9902000145/146
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GSB 17 3-5' Sample Number: 118541

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<135	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	135
Acrylonitrile		<135	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	135
Benzene		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
Carbon tetrachloride		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
Chlorobenzene		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
1,2-dichloroethane		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
1,1,2,2-tetrachloroethane		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
1,1,1-trichloroethane		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
1,1,2-trichloroethane		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
1,1,2-trichloroethylene		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
Chloroform		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
Dichlorobenzene		<54	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	54
1,1-dichloroethylene		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
Dichloropropenes		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
Ethylbenzene		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
Bromodichloromethane		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
Bromomethane		<135	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	135
Chloromethane		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
Dichlorodifluoromethane		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
Dichloromethane		<135	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	135
Trichlorofluoromethane		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
Tetrachloroethylene		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
Toluene		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
Trichloroethylene		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
Vinyl chloride		<54	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	54
m,p-xylene		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
o-xylene		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
1,1-dichloroethane		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
Ethylene dibromide		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
cis-1,2-dichlorethylene		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
trans-1,2-dichloroethylene		<27	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	27
Methylene chloride		<135	ug/kg	S-8260B	02/10/99	02/10/99	JG		5711	135
Surr. Dibromofluoromethane		90	%	S-8260B	02/10/99	02/10/99	JG		5711	72-130
Surr. Toluene-d8		103	%	S-8260B	02/10/99	02/10/99	JG		5711	77-127
Surr. 4-Bromofluorobenzene		97	%	S-8260B	02/10/99	02/10/99	JG		5711	72-131

Order ID Number: 9902000145/146 Page # 3
Field Code: GSB 17 3-5' Sample Number 118541

Parameter		Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	<2.5	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	2.5
Hexachlorobenzene	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
Pentachlorobenzene	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
1,2,4,5-tetrachlorobenzene	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
Hexachloroethane	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
2,4-dichlorphenol	<1.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	1.25
2,4,5-trichlorophenol	<1.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	1.25
2,4,6-trichlorophenol	<1.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	1.25
bis (2-chloroethly) ether	<1.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	1.25
bis (2-chloroisopropyl) ether	<1.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	1.25
bis (chloromethyl) ether	<1.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	1.25
3,3-dichlorobenzidine	<1.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	1.25
2,4-dinitrotoluene	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
Diphenylhydrazine	<1.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	1.25
Hexachlorobutadiene	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
Hexachlorocyclopentadiene	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
Isophorone	<1.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	1.25
Nitrobenzene	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
2,4-dinitro-o-cresol	<1.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	1.25
2,4-dinitrophenols	<1.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	1.25
n-nitrosodiethylamine	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
N-nitrosodimethylamine	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
N-nitrosodibutylamine	<1.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	1.25
N-nitrosodiphenylamine	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
N-nitrosopyrrolidine	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
Pentachlorophenol	<1.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	1.25
Dibutyl phthalate	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
di-2-ethylhexyl phthalate	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
Diethyl phthalate	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
Dimethyl phthalate	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
Anthracene	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
3,4-benzofluoranthene	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
Benzo(k)fluoranthene	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
Fluoranthene	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
Fluorene	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
Phenanthrene	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
Pyrene	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
Naphthalene	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
1-methylnaphthalene	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
2-methylnaphthalene	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
Benzo-a-pyrene	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
Phenol	<0.25	mg/kg	8270C	02/10/99	02/10/99	MA	5576	5714	0.25
Surr. 2-Fluorophenol	53	%	8270C	02/10/99	02/10/99	MA	5576	5714	35-111
Surr. Phenol-d6	51	%	8270C	02/10/99	02/10/99	MA	5576	5714	44-116
Surr. Nitrobenzene-d5	53	%	8270C	02/10/99	02/10/99	MA	5576	5714	45-110
Surr. 2-Fluorobiphenyl	60	%	8270C	02/10/99	02/10/99	MA	5576	5714	50-110
Surr. 2,4,6-Tribromophenol	68	%	8270C	02/10/99	02/10/99	MA	5576	5714	66-123
Surr. Terphenyl-d14	112	%	8270C	02/10/99	02/10/99	MA	5576	5714	28-137

Order ID Number: 9902000145/146
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/2/99
Page # 4

Field Code: GSB 17 3-5'

Sample Number: 118541

Parameter	Flag		Units	Analytical Method	Date	Date	Analyst	Prep	Run	Reporting Limit
Aldrin		<0.02	mg/kg	8081	2/10/99	2/13/99	SH			0.02
Chlordane		<0.10	mg/kg	8081	2/10/99	2/13/99	SH			0.1
DDT		<0.03	mg/kg	8081	2/10/99	2/13/99	SH			0.03
Dieldrin		<0.02	mg/kg	8081	2/10/99	2/13/99	SH			0.02
Endosulfan		<0.03	mg/kg	8081	2/10/99	2/13/99	SH			0.03
Endrin		<0.05	mg/kg	8081	2/10/99	2/13/99	SH			0.05
Heptachlor		<0.03	mg/kg	8081	2/10/99	2/13/99	SH			0.03
PCB's		<0.1	mg/kg	8082	2/10/99	2/10/99	RC	5577	5715	0.1
Arsenic		4.9	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Barium		154	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Cadmium		<0.10	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.10
Chromium		3.7	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Lead		2.6	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Total Mercury		<0.10	mg/kg	7471A	2/11/99	2/12/99	BP	5580	5718	0.10
Selenium		<0.50	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Silver		<0.50	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Uranium		<5.0	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	5.0
Copper		1.5	mg/kg	6010B	2/9/99	2/15/99	RR	5578	5716	1.0
Iron		2,443	mg/kg	6010B	2/9/99	2/11/99	RR	5579	5717	5.0
Manganese		18	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	1.0
Zinc		6.7	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	2.0
Aluminum		3,895	mg/kg	6010B	2/9/99	2/15/99	RR	5579	5717	10
Boron		22	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	10
Cobalt		<0.50	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Molybdenum		<1.0	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	1.0
Nickel		3.0	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Cyanide		<0.20	mg/kg	SM 4500CN C,E	2/11/99	2/11/99	MD	5581	5719	0.20
Fluoride		4.0	mg/kg	300.0	2/10/99	2/10/99	JS	5582	5720	0.1
Nitrate		1.4	mg/kg	300.0	2/10/99	2/10/99	JS	5582	5720	0.1
Chloride		34	mg/kg	300.0	2/10/99	2/10/99	JS	5582	5720	0.5
Sulfate		61	mg/kg	300.0	2/10/99	2/10/99	JS	5582	5720	0.5
TDS		360	mg/kg	160.1	2/10/99	2/10/99	SA	5583	5722	12
pH		8.6	s.u.	150.1	2/9/99	2/9/99	RS	5584	5723	---
TRPHC		<10.0	mg/kg	418.1	2/11/99	2/11/99	MF	5479	5595	10
Total Phenol		<0.50	mg/kg	SM 5530 A,D	2/10/99	2/10/99	SA	5585	5724	0.50
Total Radium		2.85	pCi/gm	901.1M	2/10/99	2/10/99	MD			

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/26/99
Page #5

Order ID Number: 9902000145/146
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GSB 17 38-40' Sample Number: 118542

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<145	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	145
Acrylonitrile		<145	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	145
Benzene		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Carbon tetrachloride		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Chlorobenzene		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
1,2-dichloroethane		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
1,1,2,2-tetrachloroethane		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
1,1,1-trichloroethane		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
1,1,2-trichloroethane		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
1,1,2-trichloroethylene		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Chloroform		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Dichlorobenzene		<58	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	58
1,1-dichloroethylene		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Dichloropropenes		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Ethylbenzene		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Bromodichloromethane		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Bromomethane		<145	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	145
Chloromethane		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Dichlorodifluoromethane		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Dichloromethane		<145	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	145
Trichlorofluoromethane		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Tetrachloroethylene		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Toluene		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Trichloroethylene		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Vinyl chloride		<58	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	58
m,p-xylene		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
o-xylene		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
1,1-dichloroethane		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Ethylene dibromide		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
cis-1,2-dichlorethylene		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
trans-1,2-dichloroethylene		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Methylene chloride		<145	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	145
Surr. Dibromofluoromethane		100	%	S-8260B	2/10/99	2/10/99	JG		5711	72-130
Surr. Toluene-d8		102	%	S-8260B	2/10/99	2/10/99	JG		5711	77-127
Surr. 4-Bromofluorobenzene		97	%	S-8260B	2/10/99	2/10/99	JG		5711	72-131

Order ID Number: 9902000145/146

Field Code: GSB 17 38-40' Sample Number: 118542 Page #6

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Hexachloroethane		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
bis (2-chloroethyl) ether		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Isophorone		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
Nitrobenzene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Anthracene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
3,4-benzofluoranthene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Fluoranthene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Fluorene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Phenanthrene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Pyrene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Naphthalene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Phenol		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Surr. 2-Fluorophenol		68	%	8270C	2/10/99	2/10/99	MA	5576	5714	35-111
Surr. Phenol-d6		60	%	8270C	2/10/99	2/10/99	MA	5576	5714	44-116
Surr. Nitrobenzene-d5		65	%	8270C	2/10/99	2/10/99	MA	5576	5714	45-110
Surr. 2-Fluorobiphenyl		69	%	8270C	2/10/99	2/10/99	MA	5576	5714	50-110
Surr. 2,4,6-Tribromophenol		70	%	8270C	2/10/99	2/10/99	MA	5576	5714	66-123
Surr. Terphenyl-d14		95	%	8270C	2/10/99	2/10/99	MA	5576	5714	28-137

Date: 3/2/99

Order ID Number: 9902000145/146 Page #7

Project Name: Shell Westgate

Project Location: Hobbs, NM

Field Code: GSB 17 38-40' Sample Number: 118542

Parameter	Flag		Units	Analytical Method	Date	Date	Analyst	Prep	Run	Reporting Limit
Aldrin		<0.02	mg/kg	8081	2/10/99	2/13/99	SH			0.02
Chlordane		<0.10	mg/kg	8081	2/10/99	2/13/99	SH			0.1
DDT		<0.03	mg/kg	8081	2/10/99	2/13/99	SH			0.03
Dieldrin		<0.02	mg/kg	8081	2/10/99	2/13/99	SH			0.02
Endosulfan		<0.03	mg/kg	8081	2/10/99	2/13/99	SH			0.03
Endrin		<0.05	mg/kg	8081	2/10/99	2/13/99	SH			0.05
Heptachlor		<0.03	mg/kg	8081	2/10/99	2/13/99	SH			0.03
PCB's		<0.1	mg/kg	8082	2/10/99	2/10/99	RC	5577	5715	0.1
Arsenic		<0.50	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Barium		6.5	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Cadmium		<0.10	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.10
Chromium		5.4	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Lead		<0.50	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Total Mercury		<0.10	mg/kg	7471A	2/11/99	2/12/99	BP	5580	5718	0.10
Selenium		<0.50	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Silver		<0.50	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Uranium		<5.0	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	5.0
Copper		1.5	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	1.0
Iron		2,420	mg/kg	6010B	2/9/99	2/15/99	RR	5579	5717	5.0
Manganese		18	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	1.0
Zinc		5.6	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	2.0
Aluminum		2,072	mg/kg	6010B	2/9/99	2/15/99	RR	5579	5717	10
Boron		20	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	10
Cobalt		<0.50	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Molybdenum		<1.0	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	1.0
Nickel		<0.50	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Cyanide		<0.20	mg/kg	SM 4500CN C,E	2/11/99	2/11/99	MD	5581	5719	0.20
Fluoride		1.1	mg/kg	300.0	2/10/99	2/10/99	JS	5582	5720	0.1
Nitrate		1.9	mg/kg	300.0	2/10/99	2/10/99	JS	5582	5720	0.1
Chloride		140	mg/kg	300.0	2/10/99	2/10/99	JS	5582	5720	0.5
Sulfate		270	mg/kg	300.0	2/10/99	2/12/99	JS	5582	5720	0.5
TDS		760	mg/kg	160.1	2/10/99	2/10/99	SA	5583	5722	12
pH		8.9	s.u.	150.1	2/9/99	2/9/99	RS	5584	5723	---
TRPHC		<10.0	mg/kg	418.1	2/11/99	2/11/99	MF	5479	5595	10
Total Phenol		<0.50	mg/kg	SM 5530 A,D	2/10/99	2/10/99	SA	5585	5724	0.50
Total Radium		11.03	pCi/gm	901.1M	2/10/99	2/10/99	MD			

Analytical Results Report

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Date: 2/26/99
Page #8

Order ID Number: 9902000145/146
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GSB 16 3-5' Sample Number: 118543

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<145	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	145
Acrylonitrile		<145	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	145
Benzene		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Carbon tetrachloride		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Chlorobenzene		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
1,2-dichloroethane		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
1,1,2,2-tetrachloroethane		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
1,1,1-trichloroethane		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
1,1,2-trichloroethane		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
1,1,2-trichloroethylene		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Chloroform		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Dichlorobenzene		<58	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	58
1,1-dichloroethylene		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Dichloropropenes		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Ethylbenzene		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Bromodichloromethane		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Bromomethane		<145	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	145
Chloromethane		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Dichlorodifluoromethane		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Dichloromethane		<145	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	145
Trichlorofluoromethane		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Tetrachloroethylene		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Toluene		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Trichloroethylene		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Vinyl chloride		<58	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	58
m,p-xylene		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
o-xylene		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
1,1-dichloroethane		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Ethylene dibromide		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
cis-1,2-dichlorethylene		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
trans-1,2-dichloroethylene		<29	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	29
Methylene chloride		<145	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	145
Surr. Dibromofluoromethane		94	%	S-8260B	2/10/99	2/10/99	JG		5711	72-130
Surr. Toluene-d8		101	%	S-8260B	2/10/99	2/10/99	JG		5711	77-127
Surr. 4-Bromofluorobenzene		97	%	S-8260B	2/10/99	2/10/99	JG		5711	72-131

Order ID Number: 9902000145/146 Sample Number: 118543 Page #9

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	*ERL	<25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	25
Hexachlorobenzene	*ERL	<25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	25
Pentachlorobenzene	*ERL	<25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
1,2,4,5-tetrachlorobenzene	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
Hexachloroethane	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
2,4-dichlorphenol	*ERL	<12.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	12.5
2,4,5-trichlorophenol	*ERL	<12.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	12.5
2,4,6-trichlorophenol	*ERL	<12.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	12.5
bis (2-chloroethyl) ether	*ERL	<12.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	12.5
bis (2-chloroisopropyl) ether	*ERL	<12.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	12.5
bis (chloromethyl) ether	*ERL	<12.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	12.5
3,3-dichlorobenzidine	*ERL	<12.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	12.5
2,4-dinitrotoluene	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
Diphenylhydrazine	*ERL	<12.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	12.5
Hexachlorobutadiene	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
Hexachlorocyclopentadiene	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
Isophorone	*ERL	<12.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	12.5
Nitrobenzene	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
2,4-dinitro-o-cresol	*ERL	<12.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	12.5
2,4-dinitrophenols	*ERL	<12.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	12.5
n-nitrosodiethylamine	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
N-nitrosodimethylamine	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
N-nitrosodibutylamine	*ERL	<12.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	12.5
N-nitrosodiphenylamine	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
N-nitrosopyrrolidine	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
Pentachlorophenol	*ERL	<12.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	12.5
Dibutyl phthalate	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
di-2-ethylhexyl phthalate	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
Diethyl phthalate	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
Dimethyl phthalate	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
Anthracene	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
3,4-benzofluoranthene	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
Benzo(k)fluoranthene	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
Fluoranthene	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
Fluorene	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
Phenanthrene	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
Pyrene	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
Naphthalene	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
1-methylnaphthalene	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
2-methylnaphthalene	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
Benzo-a-pyrene	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
Phenol	*ERL	<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
Surr. 2-Fluorophenol		49	%	8270C	2/10/99	2/10/99	MA	5576	5714	35-111
Surr. Phenol-d6		72	%	8270C	2/10/99	2/10/99	MA	5576	5714	44-116
Surr. Nitrobenzene-d5		62	%	8270C	2/10/99	2/10/99	MA	5576	5714	45-110
Surr. 2-Fluorobiphenyl		76	%	8270C	2/10/99	2/10/99	MA	5576	5714	50-110
Surr. 2,4,6-Tribromophenol		83	%	8270C	2/10/99	2/10/99	MA	5576	5714	66-123
Surr. Terphenyl-d14		127	%	8270C	2/10/99	2/10/99	MA	5576	5714	28-137

Order ID Number: 9902000145/146 Page #10
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GSB 17 38-40' Sample Number: 118543

Parameter	Flag		Units	Analytical Method	Date	Date	Analyst	Prep	Run	Reporting Limit
Aldrin	*ERL	<0.20	mg/kg	8081	2/10/99	2/13/99	SH			0.20
Chlordane	*ERL	<1.0	mg/kg	8081	2/10/99	2/13/99	SH			1.0
DDT	*ERL	<0.30	mg/kg	8081	2/10/99	2/13/99	SH			0.30
Dieldrin	*ERL	<0.20	mg/kg	8081	2/10/99	2/13/99	SH			0.20
Endosulfan	*ERL	<0.30	mg/kg	8081	2/10/99	2/13/99	SH			0.30
Endrin	*ERL	<0.50	mg/kg	8081	2/10/99	2/13/99	SH			0.50
Heptachlor	*ERL	<0.30	mg/kg	8081	2/10/99	2/13/99	SH			0.30
PCB's		<0.1	mg/kg	8082	2/10/99	2/10/99	RC	5577	5715	0.1
Arsenic		1.7	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Barium		172	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Cadmium		<0.10	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.10
Chromium		2.9	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Lead		2.0	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Total Mercury		<0.10	mg/kg	7471A	2/11/99	2/12/99	BP	5580	5718	0.10
Selenium		<0.50	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Silver		<0.50	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Uranium		<5.0	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	5.0
Copper		1.6	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	1.0
Iron		2,035	mg/kg	6010B	2/9/99	2/15/99	RR	5579	5717	5.0
Manganese		22	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	1.0
Zinc		6.6	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	2.0
Aluminum		2,750	mg/kg	6010B	2/9/99	2/15/99	RR	5579	5717	10
Boron		14	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	10
Cobalt		0.61	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Molybdenum		<1.0	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	1.0
Nickel		2.8	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Cyanide		<0.20	mg/kg	SM 4500CN C,E	2/11/99	2/11/99	MD	5581	5719	0.20
Fluoride		2.4	mg/kg	300.0	2/10/99	2/10/99	JS	5582	5720	0.1
Nitrate		4.8	mg/kg	300.0	2/10/99	2/10/99	JS	5582	5720	0.1
Chloride		17	mg/kg	300.0	2/10/99	2/10/99	JS	5582	5720	0.5
Sulfate		170	mg/kg	300.0	2/10/99	2/10/99	JS	5582	5720	0.5
TDS		540	mg/kg	160.1	2/10/99	2/10/99	SA	5583	5722	12
pH		8.3	s.u.	150.1	2/9/99	2/9/99	RS	5584	5723	---
TRPHC		665	mg/kg	418.1	2/11/99	2/11/99	MF	5479	5595	10
Total Phenol		0.679	mg/kg	SM 5530 A,D	2/10/99	2/10/99	SA	5585	5724	0.50
Total Radium		1.86	pCi/gm	901.1M	2/10/99	2/10/99	MD			

*Pestcide 118543 ERL due to hydrocarbons present.

Analytical Results Report

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Date: 2/26/99
Page #11

Order ID Number: 9902000145/146
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GSB 16 38-40' Sample Number: 118544

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<135	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	135
Acrylonitrile		<135	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	135
Benzene		<27	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
Carbon tetrachloride		<27	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
Chlorobenzene		<27	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
1,2-dichloroethane		<27	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
1,1,2,2-tetrachloroethane		<27	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
1,1,1-trichloroethane		<27	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
1,1,2-trichloroethane		<27	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
1,1,2-trichloroethylene		<27	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
Chloroform		<27	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
Dichlorobenzene		<54	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	54
1,1-dichloroethylene		<27	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
Dichloropropenes		<27	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
Ethylbenzene		88	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
Bromodichloromethane		<27	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
Bromomethane		<135	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	135
Chloromethane		<27	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
Dichlorodifluoromethane		<27	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
Dichloromethane		<135	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	135
Trichlorofluoromethane		<27	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
Tetrachloroethylene		<27	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
Toluene		<27	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
Trichloroethylene		<27	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
Vinyl chloride		<54	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	54
m,p-xylene		390	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
o-xylene		105	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
1,1-dichloroethane		<27	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
Ethylene dibromide		<27	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
cis-1,2-dichlorethylene		<27	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
trans-1,2-dichloroethylene		<27	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	27
Methylene chloride		<135	ug/kg	S-8260B	2/10/99	2/10/99	JG		5711	135
Surr. Dibromofluoromethane		97	%	S-8260B	2/10/99	2/10/99	JG		5711	72-130
Surr. Toluene-d8		103	%	S-8260B	2/10/99	2/10/99	JG		5711	77-127
Surr. 4-Bromofluorobenzene		95	%	S-8260B	2/10/99	2/10/99	JG		5711	72-131

Order ID Number: 9902000145/146 Page #12

Field Code: GSB 17 38-40' Sample Number: 118544

Parameter	Flag		Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Hexachloroethane		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
bis (2-chloroethyl) ether		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Isophorone		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
Nitrobenzene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Anthracene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
3,4-benzofluoranthene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Fluoranthene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Fluorene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Phenanthrene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Pyrene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Naphthalene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Phenol		<0.25	mg/kg	8270C	2/10/99	2/10/99	MA	5576	5714	0.25
Surr. 2-Fluorophenol		83	%	8270C	2/10/99	2/10/99	MA	5576	5714	35-111
Surr. Phenol-d6		74	%	8270C	2/10/99	2/10/99	MA	5576	5714	44-116
Surr. Nitrobenzene-d5		74	%	8270C	2/10/99	2/10/99	MA	5576	5714	45-110
Surr. 2-Fluorobiphenyl		79	%	8270C	2/10/99	2/10/99	MA	5576	5714	50-110
Surr. 2,4,6-Tribromophenol		82	%	8270C	2/10/99	2/10/99	MA	5576	5714	66-123
Surr. Terphenyl-d14		114	%	8270C	2/10/99	2/10/99	MA	5576	5714	28-137

Order ID Number: 9902000145/146 Date: 3/2/99
Project Name: Shell Westgate Page #13
Project Location: Hobbs, NM

Field Code: GSB 17 38-40' Sample Number: 118544

Parameter	Flag		Units	Analytical Method	Date	Date	Analyst	Prep	Run	Reporting Limit
Aldrin		<0.02	mg/kg	8081	2/10/99	2/13/99	SH			0.02
Chlordane		<0.10	mg/kg	8081	2/10/99	2/13/99	SH			0.1
DDT		<0.03	mg/kg	8081	2/10/99	2/13/99	SH			0.03
Dieldrin		<0.02	mg/kg	8081	2/10/99	2/13/99	SH			0.02
Endosulfan		<0.03	mg/kg	8081	2/10/99	2/13/99	SH			0.03
Endrin		<0.05	mg/kg	8081	2/10/99	2/13/99	SH			0.05
Heptachlor		<0.03	mg/kg	8081	2/10/99	2/13/99	SH			0.03
PCB's		<0.1	mg/kg	8082	2/10/99	2/10/99	RC	5577	5715	0.1
Arsenic		1.0	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Barium		18	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Cadmium		<0.10	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.10
Chromium		3.5	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Lead		2.0	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Total Mercury		<0.10	mg/kg	7471A	2/11/99	2/12/99	BP	5580	5718	0.10
Selenium		<0.50	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Silver		<0.50	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Uranium		<5.0	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	5.0
Copper		<1.0	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	1.0
Iron		2,291	mg/kg	6010B	2/9/99	2/15/99	RR	5579	5717	5.0
Manganese		26	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	1.0
Zinc		4.6	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	2.0
Aluminum		1,813	mg/kg	6010B	2/9/99	2/15/99	RR	5579	5717	10
Boron		<10	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	10
Cobalt		<0.50	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Molybdenum		<1.0	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	1.0
Nickel		<0.50	mg/kg	6010B	2/9/99	2/11/99	RR	5578	5716	0.50
Cyanide		<0.20	mg/kg	SM 4500CN C,E	2/11/99	2/11/99	MD	5581	5719	0.20
Fluoride		1.6	mg/kg	300.0	2/10/99	2/10/99	JS	5582	5720	0.1
Nitrate		1.9	mg/kg	300.0	2/10/99	2/10/99	JS	5582	5720	0.1
Chloride		12	mg/kg	300.0	2/10/99	2/10/99	JS	5582	5720	0.5
Sulfate		30	mg/kg	300.0	2/10/99	2/10/99	JS	5582	5720	0.5
TDS		190	mg/kg	160.1	2/10/99	2/10/99	SA	5583	5722	12
pH		9.2	s.u.	150.1	2/9/99	2/9/99	RS	5584	5723	---
TRPHC		<10.0	mg/kg	418.1	2/11/99	2/11/99	MF	5479	5595	10
Total Phenol		1.44	mg/kg	SM 5530 A,D	2/10/99	2/10/99	SA	5585	5724	0.50
Total Radium		<2.30	pCi/gm	901.1M	2/10/99	2/10/99	MD			

Analytical Results Report

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B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/26/99
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Order ID Number: 9902000145/146
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: Field Blank

Sample Number: 118545

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	5
Acrylonitrile		<5	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	5
Benzene		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Carbon tetrachloride		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Chlorobenzene		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
1,2-dichloroethane		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
1,1,1-trichloroethane		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
1,1,2-trichloroethane		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
[redacted]hloroform		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
[redacted]hlorobenzene		<2	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	2
1,1-dichloroethylene		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Dichloropropenes		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Ethylbenzene		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Bromodichloromethane		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Bromomethane		<5	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	5
Chloromethane		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Dichlorodifluoromethane		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Dichloromethane		<5	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	5
Trichlorofluoromethane		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Tetrachloroethylene		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Toluene		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Trichloroethylene		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Vinyl chloride		<2	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	2
m,p-xylene		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
o-xylene		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
1,1-dichloroethane		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Ethylene dibromide		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Methylene chloride		<5	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	5
Surr. Dibromofluoromethane		107	%	S-8260B	2/10/99	2/10/99	JG		5712	72-130
Surr. Toluene-d8		104	%	S-8260B	2/10/99	2/10/99	JG		5712	77-127
Surr. 4-Bromofluorobenzene		106	%	S-8260B	2/10/99	2/10/99	JG		5712	72-131

Analytical Results Report

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B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/26/99
Page: #15

Order ID Number: 9902000145/146
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: Trip Blank

Sample Number: 118546

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	5
Acrylonitrile		<5	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	5
Benzene		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Carbon tetrachloride		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Chlorobenzene		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
1,2-dichloroethane		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
1,1,1-trichloroethane		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
1,1,2-trichloroethane		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Chloroform		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
ichlorobenzene		<2	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	2
1,1-dichloroethylene		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Dichloropropenes		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Ethylbenzene		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Bromodichloromethane		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Bromomethane		<5	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	5
Chloromethane		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Dichlorodifluoromethane		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Dichloromethane		<5	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	5
Trichlorofluoromethane		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Tetrachloroethylene		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Toluene		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Trichloroethylene		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Vinyl chloride		<2	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	2
m,p-xylene		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
o-xylene		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
1,1-dichloroethane		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Ethylene dibromide		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	1
Methylene chloride		<5	ug/L	S-8260B	2/10/99	2/10/99	JG		5712	5
Surr. Dibromofluoromethane		105	%	S-8260B	2/10/99	2/10/99	JG		5712	72-130
Surr. Toluene-d8		104	%	S-8260B	2/10/99	2/10/99	JG		5712	77-127
Surr. 4-Bromofluorobenzene		106	%	S-8260B	2/10/99	2/10/99	JG		5712	72-131

Quality Control Report
Blanks

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/26/99
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Order ID Number: 9902000145/146
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Result	Units	Limit	Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	2/10/99		5712
Acrylonitrile		<5	ug/L	5	2/10/99		5712
Benzene		<1	ug/L	1	2/10/99		5712
Carbon tetrachloride		<1	ug/L	1	2/10/99		5712
Chlorobenzene		<1	ug/L	1	2/10/99		5712
1,2-dichloroethane		<1	ug/L	1	2/10/99		5712
1,1,2,2-tetrachloroethane		<1	ug/L	1	2/10/99		5712
1,1,1-trichloroethane		<1	ug/L	1	2/10/99		5712
1,1,2-trichloroethane		<1	ug/L	1	2/10/99		5712
1,1,2-trichloroethylene		<1	ug/L	1	2/10/99		5712
Chloroform		<1	ug/L	1	2/10/99		5712
[illegible]chlorobenzene		<2	ug/L	2	2/10/99		5712
[illegible],1-dichloroethylene		<1	ug/L	1	2/10/99		5712
Dichloropropenes		<1	ug/L	1	2/10/99		5712
Ethylbenzene		<1	ug/L	1	2/10/99		5712
Bromodichloromethane		<1	ug/L	1	2/10/99		5712
Bromomethane		<5	ug/L	5	2/10/99		5712
Chloromethane		<1	ug/L	1	2/10/99		5712
Dichlorodifluoromethane		<1	ug/L	1	2/10/99		5712
Dichloromethane		<5	ug/L	5	2/10/99		5712
Trichlorofluoromethane		<1	ug/L	1	2/10/99		5712
Tetrachloroethylene		<1	ug/L	1	2/10/99		5712
Toluene		<1	ug/L	1	2/10/99		5712
Trichloroethylene		<1	ug/L	1	2/10/99		5712
Vinyl chloride		<2	ug/L	2	2/10/99		5712
m,p-xylene		<1	ug/L	1	2/10/99		5712
o-xylene		<1	ug/L	1	2/10/99		5712
1,1-dichloroethane		<1	ug/L	1	2/10/99		5712
Ethylene dibromide		<1	ug/L	1	2/10/99		5712
cis-1,2-dichlorethylene		<1	ug/L	1	2/10/99		5712
trans-1,2-dichloroethylene		<1	ug/L	1	2/10/99		5712
Methylene chloride		<5	ug/L	5	2/10/99		5712
Surr. Dibromofluoromethane		108	%	72-130	2/10/99		5712
Surr. Toluene-d8		104	%	77-127	2/10/99		5712
Surr. 4-Bromofluorobenzene		103	%	72-131	2/10/99		5712

Quality Control Report
Blanks

Order ID Number: 9902000145/146 Date: 2/26/99
Project Name: Shell Westgate Page #17
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<125	ug/kg	125	2/10/99		5711
Acrylonitrile		<125	ug/kg	125	2/10/99		5711
Benzene		<25	ug/kg	25	2/10/99		5711
Carbon tetrachloride		<25	ug/kg	25	2/10/99		5711
Chlorobenzene		<25	ug/kg	25	2/10/99		5711
1,2-dichloroethane		<25	ug/kg	25	2/10/99		5711
1,1,2,2-tetrachloroethane		<25	ug/kg	25	2/10/99		5711
1,1,1-trichloroethane		<25	ug/kg	25	2/10/99		5711
1,1,2-trichloroethane		<25	ug/kg	25	2/10/99		5711
1,1,2-trichloroethylene		<25	ug/kg	25	2/10/99		5711
Chloroform		<25	ug/kg	25	2/10/99		5711
Dichlorobenzene		<50	ug/kg	50	2/10/99		5711
1,1-dichloroethylene		<25	ug/kg	25	2/10/99		5711
Dichloropropenes		<25	ug/kg	25	2/10/99		5711
Ethylbenzene		<25	ug/kg	25	2/10/99		5711
Bromodichloromethane		<25	ug/kg	25	2/10/99		5711
Bromomethane		<125	ug/kg	125	2/10/99		5711
Chloromethane		<25	ug/kg	25	2/10/99		5711
Dichlorodifluoromethane		<25	ug/kg	25	2/10/99		5711
Dichloromethane		<125	ug/kg	125	2/10/99		5711
Trichlorofluoromethane		<25	ug/kg	25	2/10/99		5711
Tetrachloroethylene		<25	ug/kg	25	2/10/99		5711
Toluene		<25	ug/kg	25	2/10/99		5711
Trichloroethylene		<25	ug/kg	25	2/10/99		5711
Vinyl chloride		<50	ug/kg	50	2/10/99		5711
m,p-xylene		<25	ug/kg	25	2/10/99		5711
o-xylene		<25	ug/kg	25	2/10/99		5711
1,1-dichloroethane		<25	ug/kg	25	2/10/99		5711
Ethylene dibromide		<25	ug/kg	25	2/10/99		5711
cis-1,2-dichlorethylene		<25	ug/kg	25	2/10/99		5711
trans-1,2-dichloroethylene		<25	ug/kg	25	2/10/99		5711
Methylene chloride		<125	ug/kg	125	2/10/99		5711
Surr. Dibromofluoromethane		94	%	72-130	2/10/99		5711
Surr. Toluene-d8		104	%	77-127	2/10/99		5711
Surr. 4-Bromofluorobenzene		96	%	72-131	2/10/99		5711

Order ID Number: 9902000145/146 Date: 2/26/99

Project Name: Shell Westgate Page #18

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Benzidine		<2.5	mg/kg	2.5	02/10/99	5576	5714
Hexachlorobenzene		<0.25	mg/kg	0.25	02/10/99	5576	5714
Pentachlorobenzene		<0.25	mg/kg	0.25	02/10/99	5576	5714
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	02/10/99	5576	5714
Hexachloroethane		<0.25	mg/kg	0.25	02/10/99	5576	5714
2,4-dichlorphenol		<1.25	mg/kg	1.25	02/10/99	5576	5714
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	02/10/99	5576	5714
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	02/10/99	5576	5714
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	02/10/99	5576	5714
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	02/10/99	5576	5714
bis (chloromethyl) ether		<1.25	mg/kg	1.25	02/10/99	5576	5714
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	02/10/99	5576	5714
2,4-dinitrotoluene		<0.25	mg/kg	0.25	02/10/99	5576	5714
Diphenylhydrazine		<1.25	mg/kg	1.25	02/10/99	5576	5714
Hexachlorobutadiene		<0.25	mg/kg	0.25	02/10/99	5576	5714
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	02/10/99	5576	5714
Isophorone		<1.25	mg/kg	1.25	02/10/99	5576	5714
Nitrobenzene		<0.25	mg/kg	0.25	02/10/99	5576	5714
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	02/10/99	5576	5714
2,4-dinitrophenols		<1.25	mg/kg	1.25	02/10/99	5576	5714
n-nitrosodiethylamine		<0.25	mg/kg	0.25	02/10/99	5576	5714
nitrosodimethylamine		<0.25	mg/kg	0.25	02/10/99	5576	5714
N-nitrosodibutylamine		<1.25	mg/kg	1.25	02/10/99	5576	5714
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	02/10/99	5576	5714
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	02/10/99	5576	5714
Pentachlorophenol		<1.25	mg/kg	1.25	02/10/99	5576	5714
Dibutyl phthalate		<0.25	mg/kg	0.25	02/10/99	5576	5714
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	02/10/99	5576	5714
Diethyl phthalate		<0.25	mg/kg	0.25	02/10/99	5576	5714
Dimethyl phthalate		<0.25	mg/kg	0.25	02/10/99	5576	5714
Anthracene		<0.25	mg/kg	0.25	02/10/99	5576	5714
3,4-benzofluranthene		<0.25	mg/kg	0.25	02/10/99	5576	5714
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	02/10/99	5576	5714
Fluoranthene		<0.25	mg/kg	0.25	02/10/99	5576	5714
Fluorene		<0.25	mg/kg	0.25	02/10/99	5576	5714
Phenanthrene		<0.25	mg/kg	0.25	02/10/99	5576	5714
Pyrene		<0.25	mg/kg	0.25	02/10/99	5576	5714
Naphthalene		<0.25	mg/kg	0.25	02/10/99	5576	5714
1-methylnaphthalene		<0.25	mg/kg	0.25	02/10/99	5576	5714
2-methylnaphthalene		<0.25	mg/kg	0.25	02/10/99	5576	5714
Benzo-a-pyrene		<0.25	mg/kg	0.25	02/10/99	5576	5714
Phenol		<0.25	mg/kg	0.25	02/10/99	5576	5714
Surr. 2-Fluorophenol		77	%	33-111	02/10/99	5576	5714
Surr. Phenol-d6		68	%	44-116	02/10/99	5576	5714
Surr. Nitrobenzene-d5		68	%	45-110	02/10/99	5576	5714
Surr. 2-Fluorobiphenyl		81	%	45-110	02/10/99	5576	5714
Surr. 2,4,6-Tribromophenol		81	%	66-123	02/10/99	5576	5714
Surr. Terphenyl-d14		117	%	28-137	02/10/99	5576	5714

Quality Control Report
Blanks

Order ID Number: 9902000145/146
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 02/26/99
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Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
PCB		<0.1	mg/kg	0.1	02/10/99	5577	5715
Arsenic		<0.50	mg/kg	0.50	02/11/99	5578	5716
Barium		<0.50	mg/kg	0.50	02/11/99	5578	5716
Cadmium		<0.10	mg/kg	0.10	02/11/99	5578	5716
Chromium		<0.50	mg/kg	0.50	02/11/99	5578	5716
Lead		<0.50	mg/kg	0.50	02/11/99	5578	5716
Total Mercury		<0.10	mg/kg	0.10	02/12/99	5580	5718
Selenium		<0.50	mg/kg	0.50	02/11/99	5578	5716
Silver		<0.50	mg/kg	0.50	02/11/99	5578	5716
Uranium		<5.0	mg/kg	5.0	02/11/99	5578	5716
Copper		<1.0	mg/kg	1.0	02/11/99	5578	5716
Iron		<5.0	mg/kg	5.0	02/15/99	5579	5717
Manganese		<1.0	mg/kg	1.0	02/11/99	5578	5716
Zinc		<2.0	mg/kg	2.0	02/11/99	5578	5716
Aluminum		<10	mg/kg	10	02/15/99	5579	5717
Boron		<10	mg/kg	10	02/11/99	5578	5716
Cobalt		<0.50	mg/kg	0.50	02/11/99	5578	5716
Molybdenum		<1.0	mg/kg	1.0	02/11/99	5578	5716
Nickel		<0.50	mg/kg	0.50	02/11/99	5578	5716
Cyanide		<0.20	mg/kg	0.20	02/11/99	5581	5719
Fluoride		<0.1	mg/kg	0.1	02/10/99	5582	5720
Nitrate		<0.2	mg/kg	0.2	02/10/99	5582	5720
Chloride		<0.5	mg/kg	0.5	02/10/99	5582	5720
Sulfate		<0.5	mg/kg	0.5	02/10/99	5582	5720
Sulfate		<0.5	mg/kg	0.5	02/12/99	5582	5721
Total Dissolved Solids		<12	mg/kg	12	02/10/99	5583	5722
TRPHC		<10.0	mg/kg	10	02/11/99	5479	5595
Total Phenols		<0.50	mg/kg	0.50	02/10/99	5585	5724

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/26/99
Page #20

Order ID Number: 9902000145/146
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	90	90	02/10/99	5712
1,1-Dichloroethene		100	ug/L	111	111	02/10/99	5712
Chloroform		100	ug/L	115	115	02/10/99	5712
1,2-Dichloropropane		100	ug/L	102	102	02/10/99	5712
Toluene		100	ug/L	97	97	02/10/99	5712
Chlorobenzene		100	ug/L	100	100	02/10/99	5712
Ethylbenzene		100	ug/L	104	104	02/10/99	5712
Surr. Dibromofluoromethane		100	%	107	107	02/10/99	5712
Surr. Toluene-d8		100	%	104	104	02/10/99	5712
Surr. 4-Bromofluorobenzene		100	%	104	104	02/10/99	5712
Vinyl chloride		100	ug/L	91	91	02/10/99	5711
1,1-Dichloroethene		100	ug/L	102	102	02/10/99	5711
Chloroform		100	ug/L	95	95	02/10/99	5711
1,2-Dichloropropane		100	ug/L	101	101	02/10/99	5711
Toluene		100	ug/L	100	100	02/10/99	5711
Chlorobenzene		100	ug/L	100	100	02/10/99	5711
Ethylbenzene		100	ug/L	101	101	02/10/99	5711
Surr. Dibromofluoromethane		100	%	94	94	02/10/99	5711
Surr. Toluene-d8		100	%	104	104	02/10/99	5711
Surr. 4-Bromofluorobenzene		100	%	96	96	02/10/99	5711
Phenol		80	mg/L	89	111	02/10/99	5714
1,4-Dichlorobenzene		80	mg/L	81	101	02/10/99	5714
2-nitrophenol		80	mg/L	82	103	02/10/99	5714
2,4-Dichlorophenol		80	mg/L	81	101	02/10/99	5714
Hexachlorobutadiene		80	mg/L	75	94	02/10/99	5714
4-Chloro-3-methylphenol		80	mg/L	79	99	02/10/99	5714
2,4,6-Trichlorophenol		80	mg/L	88	110	02/10/99	5714
Acenaphthene		80	mg/L	81	101	02/10/99	5714
n-Nitrosodiphenylamine		80	mg/L	75	94	02/10/99	5714
Pentachlorophenol		80	mg/L	87	109	02/10/99	5714
Fluoranthene		80	mg/L	75	94	02/10/99	5714
Di-n-octylphthalate		80	mg/L	77	96	02/10/99	5714
Benzo(a)pyrene		80	mg/L	81	101	02/10/99	5714
Surr. 2-Fluorophenol		80	%	88	110	02/10/99	5714
Surr. Phenol-d6		80	%	92	115	02/10/99	5714
Surr. Nitroobenzene-d5		80	%	82	103	02/10/99	5714
Surr. 2-Fluorobiphenyl		80	%	85	106	02/10/99	5714
Surr. 2,4,6-Tribromophenol		80	%	90	113	02/10/99	5714
Surr. Terphenyl-d14		80	%	79	99	02/10/99	5714

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 02/26/99
Page #21

Order ID Number: 9902000145/146
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
PCB		0.40	mg/L	0.39	98	02/10/99	5715
Arsenic		1.0	mg/L	0.93	93	02/10/99	5716
Barium		1.0	mg/L	0.95	95	02/10/99	5716
Cadmium		1.0	mg/L	0.95	95	02/10/99	5716
Chromium		1.0	mg/L	0.94	94	02/10/99	5716
Lead		1.0	mg/L	0.94	94	02/10/99	5716
Total Mercury		5.0	mg/L	4.8	96	02/12/99	5718
Selenium		1.0	mg/L	0.92	92	02/10/99	5716
Silver		0.20	mg/L	0.19	95	02/10/99	5716
Uranium		1.0	mg/L	0.99	99	02/10/99	5716
Copper		1.0	mg/L	0.91	91	02/10/99	5716
Iron		1.0	mg/L	0.97	97	02/15/99	5717
Manganese		1.0	mg/L	0.94	94	02/10/99	5716
Zinc		1.0	mg/L	0.92	92	02/10/99	5716
Aluminum		1.0	mg/L	0.98	98	02/15/99	5717
Boron		1.0	mg/L	0.93	93	02/10/99	5716
Cobalt		1.0	mg/L	0.94	94	02/10/99	5716
Molybdenum		1.0	mg/L	0.96	96	02/10/99	5716
Nickel		1.0	mg/L	0.94	94	02/10/99	5716
Cyanide		0.120	mg/L	0.115	96	02/11/99	5719
Fluoride		2.5	mg/L	2.515	101	02/10/99	5720
Nitrate		5.0	mg/L	4.935	99	02/10/99	5720
Chloride		12.5	mg/L	13.09	105	02/10/99	5720
Sulfate		12.5	mg/L	12.43	99	02/10/99	5720
Sulfate		12.5	mg/L	12.17	97	02/12/99	5721
TDS		100	mg/L	100	100	02/10/99	5722
pH		7.0	s.u.	7.0	100	02/09/99	5723
TRPHC		100	mg/L	104	104	02/11/99	5595
Total Phenol		0.80	mg/L	0.761	95	02/10/99	5724

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 2/26/99

Order ID Number: 9902000145/146
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene	*	ug/L	<1	100	112	112	100	118	118	5	2/10/99		5712
Benzene	*	ug/L	<1	100	118	118	100	119	119	1	2/10/99		5712
Trichloroethene	*	ug/L	<1	100	102	102	100	104	104	2	2/10/99		5712
Toluene	*	ug/L	<1	100	109	109	100	110	110	1	2/10/99		5712
Chlorobenzene	*	ug/L	<1	100	109	109	100	108	108	1	2/10/99		5712
Surr. Dibromofluoromethane		%	108	100	99	99	100	104	104	5	2/10/99		5712
Surr. Toluene-d8		%	104	100	105	105	100	103	103	2	2/10/99		5712
Surr. 4-Bromofluorobenzene		%	103	100	104	104	100	105	105	1	2/10/99		5712
1,1-Dichloroethene		ug/kg	<27	100	96	96	100	99	99	3	2/10/99		5711
Benzene		ug/kg	<27	100	109	109	100	108	108	1	2/10/99		5711
Trichloroethene		ug/kg	<27	100	109	109	100	110	110	1	2/10/99		5711
Toluene		ug/kg	<27	100	109	109	100	110	110	1	2/10/99		5711
Chlorobenzene		ug/kg	<27	100	108	108	100	109	109	1	2/10/99		5711
Surr. Dibromofluoromethane		%	90	100	90	90	100	93	93	3	2/10/99		5711
Surr. Toluene-d8		%	103	100	103	103	100	104	104	1	2/10/99		5711
Surr. 4-Bromofluorobenzene		%	97	100	96	96	100	95	95	1	2/10/99		5711
Phenol	*	mg/kg	<0.25	100	91	91	100	80	80	13	2/10/99	5576	5714
2-Chlorophenol	*	mg/kg	<1.25	100	87	87	100	77	77	12	2/10/99	5576	5714
1,4-Dichlorobenzene	*	mg/kg	<0.25	100	74	74	100	68	68	8	2/10/99	5576	5714
n-Nitrosodi-n-propylamin	*	mg/kg	<0.25	100	78	78	100	67	67	15	2/10/99	5576	5714
1,2,4-trichlorobenzene	*	mg/kg	<0.25	100	68	68	100	60	60	13	2/10/99	5576	5714
4-Chloro-3-methylpheno	*	mg/kg	<1.25	100	83	83	100	78	78	6	2/10/99	5576	5714
Acenaphthene	*	mg/kg	<0.25	100	83	83	100	77	77	8	2/10/99	5576	5714
4-Nitrophenol	*	mg/kg	<1.25	100	37	37	100	39	39	5	2/10/99	5576	5714
2,4-Dinitrotoluene	*	mg/kg	<0.25	100	100	100	100	93	93	7	2/10/99	5576	5714
Pentachlorophenol	*	mg/kg	<1.25	100	84	84	100	80	80	5	2/10/99	5576	5714
Pyrene	*	mg/kg	<0.25	100	80	80	100	84	84	5	2/10/99	5576	5714
Surr. 2-Fluorophenol		%	77	100	68	78	100	63	73	8	2/10/99	5576	5714
Surr. Phenol-d6		%	68	100	84	82	100	76	78	10	2/10/99	5576	5714
Surr. Nitrobenzene-d5		%	68	100	75	85	100	67	79	11	2/10/99	5576	5714
Surr. 2-Fluorobiphenyl		%	81	100	80	87	100	72	82	11	2/10/99	5576	5714
Surr. 2,4,6-Tribromophenol		%	81	100	99	97	100	96	94	3	2/10/99	5576	5714
Surr. Terphenyl-d14		%	117	100	92	87	100	96	81	4	2/10/99	5576	5714

LCS's used for spike and spike duplicate.

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Order ID Number: 9902000145/146
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 2/26/99

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
PCB		mg/kg	<0.1	0.50	0.60	114	0.50	0.60	120	0	2/10/99	5571	5715
Arsenic		mg/kg	4.9	200	200	98	200	202	99	1	2/10/99	5578	5716
Barium	*	mg/kg	<0.50	200	180	90	200	200	100	11	2/10/99	5578	5716
Cadmium		mg/kg	<0.10	200	173	87	200	170	85	2	2/10/99	5578	5716
Chromium		mg/kg	3.7	200	187	92	200	183	92	2	2/10/99	5578	5716
Lead		mg/kg	2.6	200	175	85	200	180	89	3	2/10/99	5578	5716
Total Mercury		mg/kg	<0.10	2.5	2.1	84	2.5	2.2	88	5	2/12/99	5580	5718
Selenium		mg/kg	<0.50	200	176	88	200	179	90	2	2/10/99	5578	5716
Silver		mg/kg	<0.50	20	22	110	20	22	110	0	2/10/99	5578	5716
Uranium		mg/kg	<5.0	200	202	101	200	200	100	1	2/10/99	5578	5716
Copper		mg/kg	1.5	200	186	92	200	183	91	2	2/10/99	5578	5716
Iron		mg/kg	2,443	1000	3,181	74	1000	3,282	84	3	2/15/99	5579	5717
Manganese		mg/kg	18	200	202	92	200	199	91	1	2/10/99	5578	5716
Zinc		mg/kg	6.7	200	188	91	200	184	89	2	2/10/99	5578	5716
Aluminum		mg/kg	3,895	1000	4,866	97	200	4,987	61	2	2/15/99	5579	5717
Boron		mg/kg	22	200	211	95	200	209	94	1	2/10/99	5578	5716
Cobalt		mg/kg	<0.50	200	172	86	200	173	87	1	2/10/99	5578	5716
Molybdenum		mg/kg	<1.0	20	16	80	20	17	85	6	2/10/99	5578	5716
Nickel		mg/kg	3.0	200	182	90	200	185	91	2	2/10/99	5578	5716
Cyanide		mg/kg	<0.20	3.0	2.64	88	3.0	2.64	88	0	2/11/99	5581	5719
Fluoride		mg/kg	1.6	5.0	6.33	95	5.0	6.36	95	0	2/10/99	5582	5720
Nitrate		mg/kg	1.9	10	11.47	115	10	11.59	104	1	2/10/99	5582	5720
Chloride		mg/kg	12	25	36.50	98	25	36.87	99	1	2/10/99	5582	5720
Sulfate		mg/kg	30	25	55.25	101	50	54.88	110	1	2/10/99	5582	5720
Sulfate		mg/kg	270	125	392.01	98	125	392.11	98	0	2/12/99	5582	5721
TRPHC		mg/kg	<10	250	176	70	250	202	81	14	2/11/99	5479	5595
Total Phenol		mg/kg	1.44	5.0	5.56	111	5.0	5.14	74	8	2/10/99	5585	5724

*LCS's used for spike and spike duplicate.

Quality Control Report
Duplicate

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/02/99
Page #24

Order ID Number: 9902000145/146
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Duplicate Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	8.6	8.5	1	2/9/99	5584	5723
TDS		mg/kg	360	340	6	2/10/99	5583	5722

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-
Attn: Nell Green

Report Date: *16-Feb-99*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Our Lab#: MEL99-01724 **Your Sample ID:** 118541
Date Logged In: 2/10/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:**
Project #: **Date Submitted to Lab:** 2/10/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/8/99

EPA Method	Analyst	Prep Date	Analysis Date
160.3	DJF		2/12/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	93.4 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	2/10/99	2/13/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 mg/kg	0.02
12674-11-2	Aroclor 1016	< 0.10 mg/kg	0.1
11104-28-2	Aroclor 1221	< 0.10 mg/kg	0.1
11141-16-5	Aroclor 1232	< 0.10 mg/kg	0.1
53469-21-9	Aroclor 1242	< 0.10 mg/kg	0.1
12672-29-6	Aroclor 1248	< 0.10 mg/kg	0.1
11097-69-1	Aroclor 1254	< 0.10 mg/kg	0.1
11096-82-5	Aroclor 1260	< 0.10 mg/kg	0.1
319-84-6	alpha-BHC	< 0.02 mg/kg	0.02
319-85-7	beta-BHC	< 0.02 mg/kg	0.02
319-86-8	delta-BHC	< 0.02 mg/kg	0.02
58-89-9	gamma-BHC (Lindane)	< 0.02 mg/kg	0.02
57-74-9	Chlordane(Total)	< 0.10 mg/kg	0.1
72-54-8	4,4'-DDD	< 0.02 mg/kg	0.02
72-55-9	4,4'-DDE	< 0.03 mg/kg	0.03
50-29-3	4,4'-DDT	< 0.03 mg/kg	0.03

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Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

CAS Number	Parameter	Result	Typical Report Limit
60-57-1	Dieldrin	< 0.02 mg/kg	0.02
959-98-8	Endosulfan I	< 0.03 mg/kg	0.03
33213-65-9	Endosulfan II	< 0.03 mg/kg	0.03
1031-07-8	Endosulfan sulfate	< 0.03 mg/kg	0.03
72-20-8	Endrin	< 0.05 mg/kg	0.05
7421-93-4	Endrin aldehyde	< 0.05 mg/kg	0.05
76-44-8	Heptachlor	< 0.03 mg/kg	0.03
1024-57-3	Heptachlor epoxide	< 0.03 mg/kg	0.03
72-43-5	Methoxychlor	< 0.03 mg/kg	0.03
8001-35-2	Toxaphene	< 0.10 mg/kg	0.1

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-01724	8081	Decachlorobiphenyl (Surr)	92 %R	41	129
MEL99-01724	8081	Tetrachloro-m-xylene (Surr)	70 %R	27	119

End of Report

Report Approved By Wade E. Bayer

Wade E. Bayer

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Your Sample ID: 118541

Lab Number MEL99-01724

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-

Report Date: *16-Feb-99*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Attn: Nell Green

Our Lab#: MEL99-01725 **Your Sample ID:** 118542
Date Logged In: 2/10/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:**
Project #: **Date Submitted to Lab:** 2/10/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/8/99

EPA Method	Analyst	Prep Date	Analysis Date
160.3	DJF		2/12/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	93.8 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	2/10/99	2/13/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 mg/kg	0.02
12674-11-2	Aroclor 1016	< 0.10 mg/kg	0.1
11104-28-2	Aroclor 1221	< 0.10 mg/kg	0.1
11141-16-5	Aroclor 1232	< 0.10 mg/kg	0.1
53469-21-9	Aroclor 1242	< 0.10 mg/kg	0.1
12672-29-6	Aroclor 1248	< 0.10 mg/kg	0.1
11097-69-1	Aroclor 1254	< 0.10 mg/kg	0.1
11096-82-5	Aroclor 1260	< 0.10 mg/kg	0.1
319-84-6	alpha-BHC	< 0.02 mg/kg	0.02
319-85-7	beta-BHC	< 0.02 mg/kg	0.02
319-86-8	delta-BHC	< 0.02 mg/kg	0.02
58-89-9	gamma-BHC (Lindane)	< 0.02 mg/kg	0.02
57-74-9	Chlordane(Total)	< 0.10 mg/kg	0.1
72-54-8	4,4'-DDD	< 0.02 mg/kg	0.02
72-55-9	4,4'-DDE	< 0.03 mg/kg	0.03
50-29-3	4,4'-DDT	< 0.03 mg/kg	0.03

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

CAS Number	Parameter	Result	Typical Report Limit
60-57-1	Dieldrin	< 0.02 mg/kg	0.02
959-98-8	Endosulfan I	< 0.03 mg/kg	0.03
33213-65-9	Endosulfan II	< 0.03 mg/kg	0.03
1031-07-8	Endosulfan sulfate	< 0.03 mg/kg	0.03
72-20-8	Endrin	< 0.05 mg/kg	0.05
7421-93-4	Endrin aldehyde	< 0.05 mg/kg	0.05
76-44-8	Heptachlor	< 0.03 mg/kg	0.03
1024-57-3	Heptachlor epoxide	< 0.03 mg/kg	0.03
72-43-5	Methoxychlor	< 0.03 mg/kg	0.03
8001-35-2	Toxaphene	< 0.10 mg/kg	0.1

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-01725	8081	Decachlorobiphenyl (Surr)	90 %R	41	129
MEL99-01725	8081	Tetrachloro-m-xylene (Surr)	68 %R	27	119

End of Report

Report Approved By: Wade E. Bayer

Wade E. Bayer

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Your Sample ID: 118542

Lab Number MEL99-01725

6878 S. STATE ROUTE 100 • P.O. BOX 76 • MELMORE, OH 44845-9999
PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-
Attn: Nell Green

Report Date: *16-Feb-99*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Our Lab#: MEL99-01726 **Your Sample ID:** 118543
Date Logged In: 2/10/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:**
Project #: **Date Submitted to Lab:** 2/10/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/8/99

EPA Method	Analyst	Prep Date	Analysis Date
160.3	DJF		2/12/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	96.1 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	2/10/99	2/13/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.20 mg/kg	0.02
12674-11-2	Aroclor 1016	< 1.0 mg/kg	0.1
11104-28-2	Aroclor 1221	< 1.0 mg/kg	0.1
11141-16-5	Aroclor 1232	< 1.0 mg/kg	0.1
53469-21-9	Aroclor 1242	< 1.0 mg/kg	0.1
12672-29-6	Aroclor 1248	< 1.0 mg/kg	0.1
11097-69-1	Aroclor 1254	< 1.0 mg/kg	0.1
11096-82-5	Aroclor 1260	< 1.0 mg/kg	0.1
319-84-6	alpha-BHC	< 0.20 mg/kg	0.02
319-85-7	beta-BHC	< 0.20 mg/kg	0.02
319-86-8	delta-BHC	< 0.20 mg/kg	0.02
58-89-9	gamma-BHC (Lindane)	< 0.20 mg/kg	0.02
57-74-9	Chlordane(Total)	< 1.0 mg/kg	0.1
72-54-8	4,4'-DDD	1.3 mg/kg	0.02
72-55-9	4,4'-DDE	< 0.30 mg/kg	0.03
50-29-3	4,4'-DDT	< 0.30 mg/kg	0.03

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PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

CAS Number	Parameter	Result	Typical Report Limit
60-57-1	Dieldrin	< 0.20 mg/kg	0.02
959-98-8	Endosulfan I	< 0.30 mg/kg	0.03
33213-65-9	Endosulfan II	< 0.30 mg/kg	0.03
1031-07-8	Endosulfan sulfate	< 0.30 mg/kg	0.03
72-20-8	Endrin	< 0.50 mg/kg	0.05
7421-93-4	Endrin aldehyde	< 0.50 mg/kg	0.05
76-44-8	Heptachlor	< 0.30 mg/kg	0.03
1024-57-3	Heptachlor epoxide	< 0.30 mg/kg	0.03
72-43-5	Methoxychlor	< 0.30 mg/kg	0.03
8001-35-2	Toxaphene	< 1.0 mg/kg	0.1

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-01726	8081	Decachlorobiphenyl (Surr)	10 %R *	41	129
		Surrogate diluted out due to matrix interference			
MEL99-01726	8081	Tetrachloro-m-xylene (Surr)	8 %R *	27	119
		Surrogate diluted out due to matrix interference			

End of Report

Report Approved By: Wade E. Bayer

Wade E. Bayer

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Your Sample ID: 118543

Lab Number MEL99-01726

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PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-

Report Date: *16-Feb-99*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Attn: Nell Green

Our Lab#: MEL99-01727 **Your Sample ID:** 118544
Date Logged In: 2/10/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:**
Project #: **Date Submitted to Lab:** 2/10/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/8/99

EPA Method	Analyst	Prep Date	Analysis Date
160.3	DJF		2/12/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	95.1 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	2/10/99	2/13/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 mg/kg	0.02
12674-11-2	Aroclor 1016	< 0.10 mg/kg	0.1
11104-28-2	Aroclor 1221	< 0.10 mg/kg	0.1
11141-16-5	Aroclor 1232	< 0.10 mg/kg	0.1
53469-21-9	Aroclor 1242	< 0.10 mg/kg	0.1
12672-29-6	Aroclor 1248	< 0.10 mg/kg	0.1
11097-69-1	Aroclor 1254	< 0.10 mg/kg	0.1
11096-82-5	Aroclor 1260	< 0.10 mg/kg	0.1
319-84-6	alpha-BHC	< 0.02 mg/kg	0.02
319-85-7	beta-BHC	< 0.02 mg/kg	0.02
319-86-8	delta-BHC	< 0.02 mg/kg	0.02
58-89-9	gamma-BHC (Lindane)	< 0.02 mg/kg	0.02
57-74-9	Chlordane(Total)	< 0.10 mg/kg	0.1
72-54-8	4,4'-DDD	< 0.02 mg/kg	0.02
72-55-9	4,4'-DDE	< 0.03 mg/kg	0.03
50-29-3	4,4'-DDT	< 0.03 mg/kg	0.03

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

CAS Number	Parameter	Result	Typical Report Limit
60-57-1	Dieldrin	< 0.02 mg/kg	0.02
959-98-8	Endosulfan I	< 0.03 mg/kg	0.03
33213-65-9	Endosulfan II	< 0.03 mg/kg	0.03
1031-07-8	Endosulfan sulfate	< 0.03 mg/kg	0.03
72-20-8	Endrin	< 0.05 mg/kg	0.05
7421-93-4	Endrin aldehyde	< 0.05 mg/kg	0.05
76-44-8	Heptachlor	< 0.03 mg/kg	0.03
1024-57-3	Heptachlor epoxide	< 0.03 mg/kg	0.03
72-43-5	Methoxychlor	< 0.03 mg/kg	0.03
8001-35-2	Toxaphene	< 0.10 mg/kg	0.1

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-01727	8081	Decachlorobiphenyl (Surr)	93 %R	41	129
MEL99-01727	8081	Tetrachloro-m-xylene (Surr)	69 %R	27	119

End of Report

Report Approved By: Wade E. Bayer

Wade E. Bayer

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Your Sample ID: 118544 *Lab Number MEL99-01727*

6878 S. STATE ROUTE 100 • P.O. BOX 76 • MELMORE, OH 44845-9999
PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

Mitchell Davis and Associates. Inc.

Post Office Box 606
Gramercy, LA 70052-0606
Phone: 225-869-7000

1-800-679-9874

Fax: (225) 869-7002

Mitchell Davis and Associates, Inc.

Laboratory Analysis Report

Prepared For:

Trace Analysis, Inc.
Nell Green
6701 Aberdeen Ave., Ste. 9
Lubbock, TX
Phone: 806-794-1296
Fax: 806-794-1298

Quality Assurance Review

Mitchell Davis and Associates, Inc. assumes no liability for the use or interpretation of any analytical results other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Mitchell Davis and Associates. Inc.

Post Office Box 606
Gramercy, LA 70052-0606
1-800-679-9874 Phone: 225-869-7000 Fax: (225) 869-7002

Tracking Number:	DAV-99-0203	**P.O. Number:**	Verbal
Client ID:	118541	**Davis Sample ID:**	DAV-99-0507
Date Sampled:	2/8/99	**Date Received:**	2/10/99
Time Sampled:	N/A	**Time Received:**	1035
Type of Sample:	Solid	**Date of Report:**	2/14/99

Analysis Description	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	2.85	1.70	pCi/gm	0.11	0.06	Bq/gm	EPA 901.1M	2/10/99 1320	md
Ra-228	<0.57	N/A	pCi/gm	<0.02	N/A	Bq/gm	EPA 901.1M	2/10/99 1320	md
Pb-210	<2.31	N/A	pCi/gm	<0.09	N/A	Bq/gm	EPA 901.1M	2/10/99 1320	md
Total Activity	8.80	N/A	pCi/gm	0.33	N/A	Bq/gm	EPA 901.1M	2/10/99 1320	md

Notes:

Quality Assurance Review

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Mitchell Davis and Associates. Inc.

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Gramercy, LA 70052-0606
1-800-679-9874 Phone: 225-869-7000 Fax: (225) 869-7002

Tracking Number:	DAV-99-0203	**P.O. Number:**	Verbal
Client ID:	118542	**Davis Sample ID:**	DAV-99-0508
Date Sampled:	2/8/99	**Date Received:**	2/10/99
Time Sampled:	N/A	**Time Received:**	1035
Type of Sample:	Solid	**Date of Report:**	2/14/99

Analysis Description	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	11.03	2.75	pCi/gm	0.41	0.10	Bq/gm	EPA 901.1M	2/10/99 1226	md
Ra-228	<0.78	N/A	pCi/gm	<0.03	N/A	Bq/gm	EPA 901.1M	2/10/99 1226	md
Pb-210	6.33	2.26	pCi/gm	0.23	0.08	Bq/gm	EPA 901.1M	2/10/99 1226	md
Total Activity	36.16	N/A	pCi/gm	1.34	N/A	Bq/gm	EPA 901.1M	2/10/99 1226	md

Notes:

Quality Assurance Review

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1-800-679-9874 Phone: 225-869-7000 Fax: (225) 869-7002

Tracking Number:	DAV-99-0203	**P.O. Number:**	Verbal
Client ID:	118543	**Davis Sample ID:**	DAV-99-0509
Date Sampled:	2/8/99	**Date Received:**	2/10/99
Time Sampled:	N/A	**Time Received:**	1035
Type of Sample:	Solid	**Date of Report:**	2/14/99

Analysis Description	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	1.86	1.58	pCi/gm	0.07	0.06	Bq/gm	EPA 901.1M	2/10/99 1550	md
Ra-228	<0.62	N/A	pCi/gm	<0.02	N/A	Bq/gm	EPA 901.1M	2/10/99 1550	md
Pb-210	<2.10	N/A	pCi/gm	<0.08	N/A	Bq/gm	EPA 901.1M	2/10/99 1550	md
Total Activity	7.23	N/A	pCi/gm	0.28	N/A	Bq/gm	EPA 901.1M	2/10/99 1550	md

Notes:

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Mitchell Davis and Associates. Inc.

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1-800-679-9874 Phone: 225-869-7000 Fax: (225) 869-7002

Tracking Number:	DAV-99-0203	**P.O. Number:**	Verbal
Client ID:	118544	**Davis Sample ID:**	DAV-99-0510
Date Sampled:	2/8/99	**Date Received:**	2/10/99
Time Sampled:	N/A	**Time Received:**	1035
Type of Sample:	Solid	**Date of Report:**	2/14/99

Analysis Description	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	<1.74	N/A	pCi/gm	0.06	N/A	Bq/gm	EPA 901.1M	2/10/99 1637	md
Ra-228	<0.56	N/A	pCi/gm	<0.02	N/A	Bq/gm	EPA 901.1M	2/10/99 1637	md
Pb-210	<1.80	N/A	pCi/gm	<0.07	N/A	Bq/gm	EPA 901.1M	2/10/99 1637	md
Total Activity	6.11	N/A	pCi/gm	0.23	N/A	Bq/gm	EPA 901.1M	2/10/99 1637	md

Notes:

Quality Assurance Review

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Mitchell Davis and Associates. Inc.

Post Office Box 606
Gramercy, LA 70052-0606
Phone: 225-869-7000
Fax: (225) 869-7002

Notes:

nments:

Soil and Sludge analysis results are reported on a wet basis or as received basis unless otherwise indicated.
The data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
Modified analysis procedures are procedures that are modified to meet certain specifications. An example would be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix.
Derived Air Concentrations and Effluent Release Concentrations are obtained from 10 CFR 20 Appendix B.
Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring decay chains and other prominent radioactive isotopes. Total activity may be lower than actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of isotopes that emit solely alpha or beta radiation.
Ra-228 is determined via secular equilibrium with its daughter, Actinium 228. (Gamma Spectroscopy only)
U-238 is determined via secular equilibrium with its daughter, Thorium 234. (Gamma Spectroscopy only).
All Gamma Spectroscopy was performed using high purity germanium detectors (HPGE).

iod References:

EPA 600/4-80-032, Prescribed Procedures for the Measurement of Radioactivity in Drinking Water, August 1980.
ndard Methods for the Examination of Water and Waste Water, 18th, 1992.
A SW-846, Test Methods for Evaluating Solid Waste, Third Edition, (9/86). (Updated through 1995)
EPA 600/4/79-020, Methods for Chemical Analysis of Water and Waste, March 1983.
HASL 300

itions:

BDL	Analyte not detected because the value was below the detection limit.
ND	Not detected above the detection limit.
Detection Limit	The minimum amount of the analyte that can be detected utilizing the specific analysis.
B	Method Blank
D	Method Duplicate
MS	Matrix Spike
S	Spike
RS	Reference Spike
SC	Subcontracted to qualified laboratory
NR	Not Referenced

Davis and Associates. Inc. assumes no liability for the use or interpretation of any analytical results other than the cost of the performed analysis itself. ction of this report in less than full requires the written consent of the client.

~~118547~~ 18541-46

Page ___ of ___

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 145 / 146

Company Name: BBC International, Inc. Phone #: (505) 397-6388

Address: (Street, City, Zip) 1324 W. Marland, Hobbs, NM 88240 Fax #: (505) 397-0397

Contact Person: Cliff P. Brunson

Invoice to: (If different from above) Shell E & P Technology Co. ATTN: Wayne Hamilton

Project #: Project Name: Shell Westgate

Project Location: Hobbs, New Mexico Sampler Signature: Shawn E. Hall

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
118541	GSB 17 3-5'	6	5 4oz 1 VOA		✓								~~2/5/99~~ 2/8/99	9:30a
42	GSB 17 38-40'	6	5 4oz 1 VOA		✓								2/8/99	11:38a
	Vial reads SB-16 But the time was correct 11:38A													
43	GSB 16 3-5'	6	5 4oz 1 VOA		✓								2/8/99	2:06 p.m
44	GSB 16 38-40'	6	5 4oz 1 VOA		✓								2/8/99	3:45 p.m
45	Field Blanks	2	VOAs	✓										
46	Trip Blanks	2	VOAs	✓										

ANALYSIS REQUEST

(Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	See Attached (Full Suite)	Total Chlorides (300-1)	Total Metals (6010)	Turn Around Time if different from standard	Hold
		✓													✓				
		✓													✓				
		✓													✓				
		✓													✓				
										✓	✓								
										✓									

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Shawn E. Hall	~~2/5/9~~ 2/8/9	4:45p			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
			Vicki Wmdle	2-9-99	9:30A

LAB USE ONLY

Intact (Y) N

Headspace Y / N

Temp 1 °

Log-in Review MK

REMARKS:

Agreed Upon Turnaround

Carrier # BUS 901984684?

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/01/99
Page: # 1

Project Name: Shell Westgate
Project Location: Hobbs, NM
Order ID Number: 9902000193/194

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
118710	TSB 16 18-20'	Soil	02/09/99	10:15 a.m.	02/11/99
118711	TSB 16 63-65'	Soil	02/09/99	3:32 p.m.	02/11/99
118712	TSB 16 63-65' D	Soil	02/09/99	3:32 p.m.	02/11/99
118713	Field Blank	Water	02/09/99		02/11/99
118714	Trip Blank	Water	02/09/99		02/11/99

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

This report shall not be reproduced except in its entirety, without written approval of the laboratory.

These results represent only the samples received in the laboratory.

This report consists of a total of __34__ pages.

*118710 volatiles, semi-volatiles and pesticides elevated reporting limits due to hydrocarbons present.

*118710 Semi-volatile surrogate out of control limits due to presence of interfering ions in the sample.

Dr. Blair Leftwich
Director

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/1/99
Page # 2

Order ID Number: 9902000193/194
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB 16 18-20' Sample Number: 118710

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein	*ERL	<500	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	500
Acrylonitrile	*ERL	<500	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	500
Benzene	*ERL	<100	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
Carbon tetrachloride	*ERL	<100	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
Chlorobenzene	*ERL	<100	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
1,2-dichloroethane	*ERL	<100	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
1,1,2,2-tetrachloroethane	*ERL	<100	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
1,1,1-trichloroethane	*ERL	<100	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
1,1,2-trichloroethane	*ERL	<100	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
1,1,2-trichloroethylene	*ERL	<100	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
Chloroform	*ERL	<100	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
Dichlorobenzene	*ERL	<200	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	200
1,1-dichloroethylene	*ERL	<100	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
Dichloropropenes	*ERL	<100	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
Ethylbenzene		5,900	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
Bromodichloromethane	*ERL	<100	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
Bromomethane	*ERL	<500	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	500
Chloromethane	*ERL	<100	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
Dichlorodifluoromethane	*ERL	<100	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
Dichloromethane	*ERL	<500	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	500
Trichlorofluoromethane	*ERL	<100	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
Tetrachloroethylene	*ERL	<100	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
Toluene	*ERL	<100	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
Trichloroethylene	*ERL	<100	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
Vinyl chloride	*ERL	<200	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	200
m,p-xylene		20,000	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
o-xylene	*ERL	<100	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
1,1-dichloroethane	*ERL	<100	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
Ethylene dibromide	*ERL	<100	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
cis-1,2-dichlorethylene	*ERL	<100	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
trans-1,2-dichloroethylene	*ERL	<100	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	100
Methylene chloride	*ERL	<500	ug/kg	S-8260B	02/13/99	02/13/99	JG		5663	500
Surr. Dibromofluoromethane		101	%	S-8260B	02/13/99	02/13/99	JG		5663	72-130
Surr. Toluene-d8		112	%	S-8260B	02/13/99	02/13/99	JG		5663	77-127
Surr. 4-Bromofluorobenzene		114	%	S-8260B	02/13/99	02/13/99	JG		5663	72-131

*ERL elevated reporting limit due to hydrocarbons present.

Order ID Number: 9902000193/194 Sample Number: 118710
Field Code: TSB 16 18-20' Page # 3

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	*ERL	<15	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	15
Hexachlorobenzene	*ERL	<1.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
Pentachlorobenzene	*ERL	<1.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
1,2,4,5-tetrachlorobenzene	*ERL	<1.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
Hexachloroethane	*ERL	<1.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
2,4-dichlorphenol	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	7.5
2,4,5-trichlorophenol	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	7.5
2,4,6-trichlorophenol	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	7.5
bis (2-chloroethly) ether	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	7.5
bis (2-chloroisopropyl) ether	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	7.5
bis (chloromethyl) ether	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	7.5
3,3-dichlorobenzidine	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	7.5
2,4-dinitrotoluene	*ERL	<1.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
Diphenylhydrazine	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	7.5
Hexachlorobutadiene	*ERL	<1.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
Hexachlorocyclopentadiene	*ERL	<1.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
Isophorone	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	7.5
Nitrobenzene	*ERL	<1.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
2,4-dinitro-o-cresol	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	7.5
2,4-dinitrophenols	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	7.5
n-nitrosodiethylamine	*ERL	<1.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
N-nitrosodimethylamine	*ERL	<1.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
N-nitrosodibutylamine	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	7.5
N-nitrosodiphenylamine	*ERL	<1.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
N-nitrosopyrrolidine	*ERL	<1.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
Pentachlorophenol	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	7.5
Dibutyl phthalate	*ERL	<1.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
di-2-ethylhexyl phthalate	*ERL	<1.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
Diethyl phthalate	*ERL	<1.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
Dimethyl phthalate	*ERL	<1.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
Anthracene	*ERL	<1.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
3,4-Benzofluoranthene	*ERL	<1.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
Benzo(k)fluoranthene	*ERL	<1.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
Fluoranthene	*ERL	<1.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
Fluorene	*ERL	<1.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
Phenanthrene	*ERL	3.7	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
Pyrene	*ERL	<1.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
Naphthalene	*ERL	7.0	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
1-methylnaphthalene	*ERL	17	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
2-methylnaphthalene	*ERL	19	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
Benzo-a-pyrene	*ERL	<1.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
Phenol	*ERL	<1.5	mg/kg	8270C	2/13/99	2/17/99	SO	5537	5660	1.5
Surr. 2-Fluorophenol		86	%	8270C	2/13/99	2/17/99	SO	5537	5660	25-121
Surr. Phenol-d6		98	%	8270C	2/13/99	2/17/99	SO	5537	5660	24-113
Surr. Nitrobenzene-d5	**	127	%	8270C	2/13/99	2/17/99	SO	5537	5660	23-120
Surr. 2-Fluorobiphenyl		96	%	8270C	2/13/99	2/17/99	SO	5537	5660	30-115
Surr. 2,4,6-Tribromophenol		86	%	8270C	2/13/99	2/17/99	SO	5537	5660	19-122
Surr. Terphenyl-d14		79	%	8270C	2/13/99	2/17/99	SO	5537	5660	28-137

*ERL - elevated reporting limit due to hydrocarbons present.

**Surrogate out of control limits due to the presence of interfering ions in the sample.

Order ID Number: 9902000193/194
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/1/99
Page # 4

Sample Number: 118710

Field Code: TSB 16 18-20'

Parameter	Flag		Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin	*ERL	<2.0	mg/kg	8081	2/16/99	2/18/99	SH			2.0
Chlordane	*ERL	<10	mg/kg	8081	2/10/99	2/13/99	SH			10
DDT	*ERL	<3.0	mg/kg	8081	2/10/99	2/13/99	SH			3.0
Dieldrin	*ERL	<2.0	mg/kg	8081	2/10/99	2/13/99	SH			2.0
Endosulfan	*ERL	<3.0	mg/kg	8081	2/10/99	2/13/99	SH			3.0
Endrin	*ERL	<5.0	mg/kg	8081	2/10/99	2/13/99	SH			5.0
Heptachlor	*ERL	<3.0	mg/kg	8081	2/10/99	2/13/99	SH			3.0
PCB's		<0.1	mg/kg	8082	2/16/99	2/16/99	CS	5535	5658	0.1
Arsenic		<0.50	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	0.50
Barium		130	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	0.50
Cadmium		0.43	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	0.10
Chromium		3.7	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	0.50
Lead		0.85	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	0.50
Total Mercury		<0.10	mg/kg	7471A	2/11/99	2/12/99	BP	5532	5655	0.10
Selenium		<0.50	mg/kg	6010B	2/11/99	3/1/99	RR	5530	5739	0.50
Silver		16	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	0.50
Uranium		<5.0	mg/kg	6010B	2/11/99	2/15/99	RR	5530	5653	5.0
Copper		4.1	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	1.0
Iron		2,316	mg/kg	6010B	2/11/99	2/15/99	RR	5530	5653	5.0
Manganese		29	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	1.0
Zinc		5.2	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	2.0
Aluminum		3,332	mg/kg	6010B	2/11/99	2/15/99	RR	5530	5653	10
Boron		<10	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	10
Cobalt		<0.50	mg/kg	6010B	2/11/99	3/1/99	RR	5530	5739	0.50
Molybdenum		1.8	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	1.0
Nickel		36	mg/kg	6010B	2/11/99	2/15/99	RR	5530	5653	0.50
Cyanide		<0.20	mg/kg	SM 4500CN C,E	2/16/99	2/16/99	MD	5536	5659	0.2
Fluoride		2.6	mg/kg	300.0	2/12/99	2/12/99	JS	5531	5654	0.1
Nitrate		<0.2	mg/kg	300.0	2/12/99	2/12/99	JS	5531	5654	0.2
Chloride		15	mg/kg	300.0	2/12/99	2/12/99	JS	5531	5654	0.5
Sulfate		7.7	mg/kg	300.0	2/12/99	2/12/99	JS	5531	5654	0.5
TDS		192	mg/kg	160.1	2/15/99	2/15/99	SA	5533	5656	10
pH		8.9	s.u.	150.1	2/11/99	2/11/99	RS	5529	5652	---
TRPHC		17,200	mg/kg	418.1	2/13/99	2/15/99	MF	5490	5606	10
Total Phenol		<0.50	mg/kg	SM 5530 A,D	2/15/99	2/15/99	MD	5534	5657	0.50
Total Radium		2.49	pCi/gm	901.1M		2/16/99	MD			

*ERL - elevated reporting limit due to hydrocarbons present.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/1/99
Page #5

Order ID Number: 9902000193/194
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB 16 63-65' Sample Number: 118711

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<125	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	125
Acrylonitrile		<125	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	125
Benzene		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Carbon tetrachloride		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Chlorobenzene		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
1,2-dichloroethane		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
1,1,2,2-tetrachloroethane		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
1,1,1-trichloroethane		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
1,1,2-trichloroethane		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
1,1,2-trichloroethylene		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Chloroform		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Dichlorobenzene		<50	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	50
1,1-dichloroethylene		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Dichloropropenes		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Ethylbenzene		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Bromodichloromethane		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Bromomethane		<125	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	125
Chloromethane		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Dichlorodifluoromethane		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Dichloromethane		<125	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	125
Trichlorofluoromethane		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Tetrachloroethylene		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Toluene		65	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Trichloroethylene		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Vinyl chloride		<50	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	50
m,p-xylene		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
o-xylene		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
1,1-dichloroethane		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Ethylene dibromide		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
cis-1,2-dichlorethylene		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
trans-1,2-dichloroethylene		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Methylene chloride		<125	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	125
Surr. Dibromofluoromethane		103	%	S-8260B	2/13/99	2/13/99	JG		5663	72-130
Surr. Toluene-d8		105	%	S-8260B	2/13/99	2/13/99	JG		5663	77-127
Surr. 4-Bromofluorobenzene		96	%	S-8260B	2/13/99	2/13/99	JG		5663	72-131

Order ID Number: 9902000193/194 Page #6

Field Code: TSB 16 63-65' Sample Number: 118711

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Hexachloroethane		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
bis (2-chloroethly) ether		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Isophorone		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
Nitrobenzene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1 25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Anthracene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Fluoranthene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Fluorene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Phenanthrene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Pyrene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Naphthalene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Phenol		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Surr. 2-Fluorophenol		54	%	8270C	2/13/99	2/16/99	SO	5537	5661	25-121
Surr. Phenol-d6		59	%	8270C	2/13/99	2/16/99	SO	5537	5661	24-113
Surr. Nitrobenzene-d5		56	%	8270C	2/13/99	2/16/99	SO	5537	5661	23-120
Surr. 2-Fluorobiphenyl		57	%	8270C	2/13/99	2/16/99	SO	5537	5661	30-115
Surr. 2,4,6-Tribromophenol		59	%	8270C	2/13/99	2/16/99	SO	5537	5661	19-122
Surr. Terphenyl-d14		76	%	8270C	2/13/99	2/16/99	SO	5537	5661	28-137

Order ID Number: 9902000193/194 Date: 3/1/99
Project Name: Shell Westgate Page #7
Project Location: Hobbs, NM

Field Code: TSB 16 63-65' Sample Number: 118711

Parameter	Flag		Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin		<0.02	mg/kg	8081	2/16/99	2/18/99	SH			0.02
Chlordane		<0.10	mg/kg	8081	2/10/99	2/13/99	SH			0.1
DDT		<0.03	mg/kg	8081	2/10/99	2/13/99	SH			0.03
Dieldrin		<0.02	mg/kg	8081	2/10/99	2/13/99	SH			0.02
Endosulfan		<0.03	mg/kg	8081	2/10/99	2/13/99	SH			0.03
Endrin		<0.05	mg/kg	8081	2/10/99	2/13/99	SH			0.05
Heptachlor		<0.03	mg/kg	8081	2/10/99	2/13/99	SH			0.03
PCB's		<0.1	mg/kg	8082	2/16/99	2/16/99	CS	5535	5658	0.1
Arsenic		<0.50	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	0.50
Barium		12	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	0.50
Cadmium		0.19	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	0.10
Chromium		2.6	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	0.50
Lead		1.2	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	0.50
Total Mercury		<0.10	mg/kg	7471A	2/11/99	2/12/99	BP	5532	5655	0.10
Selenium		<0.50	mg/kg	6010B	2/11/99	3/1/99	RR	5530	5739	0.50
Silver		8.0	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	0.50
Uranium		<5.0	mg/kg	6010B	2/11/99	2/15/99	RR	5530	5653	5.0
Copper		1.6	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	1.0
Iron		2,126	mg/kg	6010B	2/11/99	2/15/99	RR	5530	5653	5.0
Manganese		32	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	1.0
Zinc		4.3	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	2.0
Aluminum		1,753	mg/kg	6010B	2/11/99	2/15/99	RR	5530	5653	10
Boron		<10	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	10
Cobalt		<0.50	mg/kg	6010B	2/11/99	3/1/99	RR	5530	5739	0.50
Molybdenum		<1.0	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	1.0
Nickel		22	mg/kg	6010B	2/11/99	2/15/99	RR	5530	5653	0.50
Cyanide		<0.20	mg/kg	SM 4500CN C,E	2/16/99	2/16/99	MD	5536	5659	0.2
Fluoride		1.5	mg/kg	300.0	2/12/99	2/12/99	JS	5531	5654	0.1
Nitrate		<0.2	mg/kg	300.0	2/12/99	2/12/99	JS	5531	5654	0.2
Chloride		22	mg/kg	300.0	2/12/99	2/12/99	JS	5531	5654	0.5
Sulfate		9.4	mg/kg	300.0	2/12/99	2/12/99	JS	5531	5654	0.5
TDS		500	mg/kg	160.1	2/15/99	2/15/99	SA	5533	5656	10
pH		9.1	s.u.	150.1	2/11/99	2/11/99	RS	5529	5652	---
TRPHC		51.7	mg/kg	418.1	2/13/99	2/15/99	MF	5490	5606	10
Total Phenol		<0.50	mg/kg	SM 5530 A,D	2/15/99	2/15/99	MD	5534	5657	0.50
Total Radium		2.09	pCi/gm	901.1M		2/14/99	MD			

Analytical Results Report

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1324 W. Marland
Hobbs, NM 88240

Date: 3/1/99
Page #8

Order ID Number: 9902000193/194
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB 16 63-65' D Sample Number: 118712

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<125	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	125
Acrylonitrile		<125	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	125
Benzene		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Carbon tetrachloride		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Chlorobenzene		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
1,2-dichloroethane		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
1,1,2,2-tetrachloroethane		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
1,1,1-trichloroethane		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
1,1,2-trichloroethane		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
1,1,2-trichloroethylene		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Chloroform		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Dichlorobenzene		<50	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	50
1,1-dichloroethylene		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Dichloropropenes		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Ethylbenzene		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Bromodichloromethane		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Bromomethane		<125	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	125
Chloromethane		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Dichlorodifluoromethane		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Dichloromethane		<125	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	125
Trichlorofluoromethane		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Tetrachloroethylene		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Toluene		65	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Trichloroethylene		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Vinyl chloride		<50	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	50
m,p-xylene		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
o-xylene		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
1,1-dichloroethane		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Ethylene dibromide		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
cis-1,2-dichlorethylene		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
trans-1,2-dichloroethylene		<25	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	25
Methylene chloride		<125	ug/kg	S-8260B	2/13/99	2/13/99	JG		5663	125
Surr. Dibromofluoromethane		97	%	S-8260B	2/13/99	2/13/99	JG		5663	72-130
Surr. Toluene-d8		104	%	S-8260B	2/13/99	2/13/99	JG		5663	77-127
Surr. 4-Bromofluorobenzene		99	%	S-8260B	2/13/99	2/13/99	JG		5663	72-131

Order ID Number: 9902000193/194 Page #9

Field Code: TSB 16 63-65' D Sample Number: 118712

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Hexachloroethane		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
bis (2-chloroethly) ether		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Isophorone		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
Nitrobenzene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Anthracene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Fluoranthene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Fluorene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Phenanthrene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Pyrene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Naphthalene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Phenol		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5537	5661	0.25
Surr. 2-Fluorophenol		53	%	8270C	2/13/99	2/16/99	SO	5537	5661	25-121
Surr. Phenol-d6		60	%	8270C	2/13/99	2/16/99	SO	5537	5661	24-113
Surr. Nitrobenzene-d5		55	%	8270C	2/13/99	2/16/99	SO	5537	5661	23-120
Surr. 2-Fluorobiphenyl		57	%	8270C	2/13/99	2/16/99	SO	5537	5661	30-115
Surr. 2,4,6-Tribromophenol		55	%	8270C	2/13/99	2/16/99	SO	5537	5661	19-122
Surr. Terphenyl-d14		76	%	8270C	2/13/99	2/16/99	SO	5537	5661	28-137

Order ID Number: 9902000193/194 Date: 3/1/99
Project Name: Shell Westgate Page #10
Project Location: Hobbs, NM

Field Code: TSB 16 63-65' D Sample Number: 118712

Parameter	Flag		Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin		<0.02	mg/kg	8081	2/16/99	2/18/99	SH			0.02
Chlordane		<0.10	mg/kg	8081	2/10/99	2/13/99	SH			0.1
DDT		<0.03	mg/kg	8081	2/10/99	2/13/99	SH			0.03
Dieldrin		<0.02	mg/kg	8081	2/10/99	2/13/99	SH			0.02
Endosulfan		<0.03	mg/kg	8081	2/10/99	2/13/99	SH			0.03
Endrin		<0.05	mg/kg	8081	2/10/99	2/13/99	SH			0.05
Heptachlor		<0.03	mg/kg	8081	2/10/99	2/13/99	SH			0.03
PCB's		<0.1	mg/kg	8082	2/16/99	2/16/99	CS	5535	5658	0.1
Arsenic		<0.50	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	0.50
Barium		12	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	0.50
Cadmium		0.29	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	0.10
Chromium		3.0	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	0.50
Lead		1.4	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	0.50
Total Mercury		<0.10	mg/kg	7471A	2/11/99	2/12/99	BP	5532	5655	0.10
Selenium		<0.50	mg/kg	6010B	2/11/99	3/1/99	RR	5530	5739	0.50
Silver		7.1	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	0.50
Uranium		<5.0	mg/kg	6010B	2/11/99	2/15/99	RR	5530	5653	5.0
Copper		2.2	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	1.0
Iron		1,964	mg/kg	6010B	2/11/99	2/15/99	RR	5530	5653	5.0
Manganese		31	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	1.0
Zinc		4.1	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	2.0
Aluminum		1,683	mg/kg	6010B	2/11/99	2/15/99	RR	5530	5653	10
Boron		<10	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	10
Cobalt		<0.50	mg/kg	6010B	2/11/99	3/1/99	RR	5530	5739	0.50
Molybdenum		<1.0	mg/kg	6010B	2/11/99	2/11/99	RR	5530	5653	1.0
Nickel		14	mg/kg	6010B	2/11/99	2/15/99	RR	5530	5653	0.50
Cyanide		<0.20	mg/kg	SM 4500CN C,E	2/16/99	2/16/99	MD	5536	5659	0.2
Fluoride		1.4	mg/kg	300.0	2/12/99	2/12/99	JS	5531	5654	0.1
Nitrate		<0.2	mg/kg	300.0	2/12/99	2/12/99	JS	5531	5654	0.2
Chloride		18	mg/kg	300.0	2/12/99	2/12/99	JS	5531	5654	0.5
Sulfate		6.7	mg/kg	300.0	2/12/99	2/12/99	JS	5531	5654	0.5
TDS		380	mg/kg	160.1	2/15/99	2/15/99	SA	5533	5656	10
pH		9.1	s.u.	150.1	2/11/99	2/11/99	RS	5529	5652	---
TRPHC		<10.0	mg/kg	418.1	2/13/99	2/15/99	MF	5490	5606	10
Total Phenol		0.609	mg/kg	SM 5530 A,D	2/15/99	2/15/99	MD	5534	5657	0.50
Total Radium		1.68	pCi/gm	901.1M		2/14/99	MD			

Analytical Results Report

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Hobbs, NM 88240

Date: 3/1/99
Page: #11

Order ID Number: 9902000193/194
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: Field Blank

Sample Number: 118713

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	5
Acrylonitrile		<5	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	5
Benzene		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
Carbon tetrachloride		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
Chlorobenzene		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
1,2-dichloroethane		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
1,1,1-trichloroethane		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
1,1,2-trichloroethane		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
Chloroform		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
Dichlorobenzene		<2	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	2
1,1-dichloroethylene		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
Dichloropropenes		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
Ethylbenzene		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
Bromodichloromethane		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
Bromomethane		<5	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	5
Chloromethane		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
Dichlorodifluoromethane		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
Dichloromethane		<5	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	5
Trichlorofluoromethane		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
Tetrachloroethylene		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
Toluene		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
Trichloroethylene		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
Vinyl chloride		<2	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	2
m,p-xylene		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
o-xylene		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
1,1-dichloroethane		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
Ethylene dibromide		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	1
Methylene chloride		<5	ug/L	S-8260B	2/12/99	2/12/99	JG		5562	5
Surr. Dibromofluoromethane		108	%	S-8260B	2/12/99	2/12/99	JG		5562	72-130
Surr. Toluene-d8		106	%	S-8260B	2/12/99	2/12/99	JG		5562	77-127
Surr. 4-Bromofluorobenzene		106	%	S-8260B	2/12/99	2/12/99	JG		5562	72-131

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/01/99

Order ID Number: 9902000193/194
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: Trip Blank

Sample Number: 118714

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	5
Acrylonitrile		<5	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	5
Benzene		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
Carbon tetrachloride		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
Chlorobenzene		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
1,2-dichloroethane		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
1,1,1-trichloroethane		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
1,1,2-trichloroethane		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
Chloroform		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
Dichlorobenzene		<2	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	2
1,1-dichloroethylene		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
Dichloropropenes		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
Ethylbenzene		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
Bromodichloromethane		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
Bromomethane		<5	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	5
Chloromethane		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
Dichlorodifluoromethane		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
Dichloromethane		<5	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	5
Trichlorofluoromethane		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
Tetrachloroethylene		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
Toluene		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
Trichloroethylene		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
Vinyl chloride		<2	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	2
m,p-xylene		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
o-xylene		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
1,1-dichloroethane		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
Ethylene dibromide		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	1
Methylene chloride		<5	ug/L	S-8260B	2/12/99	2/12/99	JG		5662	5
Surr. Dibromofluoromethane		107	%	S-8260B	2/12/99	2/12/99	JG		5662	72-130
Surr. Toluene-d8		105	%	S-8260B	2/12/99	2/12/99	JG		5662	77-127
Surr. 4-Bromofluorobenzene		105	%	S-8260B	2/12/99	2/12/99	JG		5662	72-131

Quality Control Report
Blanks

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/1/99
Page #13

Order ID Number: 9902000193/194
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Result	Units	Limit	Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	2/12/99		5662
Acrylonitrile		<5	ug/L	5	2/12/99		5662
Benzene		<1	ug/L	1	2/12/99		5662
Carbon tetrachloride		<1	ug/L	1	2/12/99		5662
Chlorobenzene		<1	ug/L	1	2/12/99		5662
1,2-dichloroethane		<1	ug/L	1	2/12/99		5662
1,1,2,2-tetrachloroethane		<1	ug/L	1	2/12/99		5662
1,1,1-trichloroethane		<1	ug/L	1	2/12/99		5662
1,1,2-trichloroethane		<1	ug/L	1	2/12/99		5662
1,2-trichloroethylene		<1	ug/L	1	2/12/99		5662
Chloroform		<1	ug/L	1	2/12/99		5662
Dichlorobenzene		<2	ug/L	2	2/12/99		5662
1,1-dichloroethylene		<1	ug/L	1	2/12/99		5662
Dichloropropenes		<1	ug/L	1	2/12/99		5662
Ethylbenzene		<1	ug/L	1	2/12/99		5662
Bromodichloromethane		<1	ug/L	1	2/12/99		5662
Bromomethane		<5	ug/L	5	2/12/99		5662
Chloromethane		<1	ug/L	1	2/12/99		5662
Dichlorodifluoromethane		<1	ug/L	1	2/12/99		5662
Dichloromethane		<5	ug/L	5	2/12/99		5662
Trichlorofluoromethane		<1	ug/L	1	2/12/99		5662
Tetrachloroethylene		<1	ug/L	1	2/12/99		5662
Toluene		<1	ug/L	1	2/12/99		5662
Trichloroethylene		<1	ug/L	1	2/12/99		5662
Vinyl chloride		<2	ug/L	2	2/12/99		5662
m,p-xylene		<1	ug/L	1	2/12/99		5662
o-xylene		<1	ug/L	1	2/12/99		5662
1,1-dichloroethane		<1	ug/L	1	2/12/99		5662
Ethylene dibromide		<1	ug/L	1	2/12/99		5662
cis-1,2-dichlorethylene		<1	ug/L	1	2/12/99		5662
trans-1,2-dichloroethylene		<1	ug/L	1	2/12/99		5662
Methylene chloride		<5	ug/L	5	2/12/99		5662
Surr. Dibromofluoromethane		106	%	72-130	2/12/99		5662
Surr. Toluene-d8		103	%	77-127	2/12/99		5662
Surr. 4-Bromofluorobenzene		107	%	72-131	2/12/99		5662

Order ID Number: 9902000193/194 Date: 3/1/99
Project Name: Shell Westgate Page #14
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<125	ug/kg	125	2/13/99		5663
Acrylonitrile		<125	ug/kg	125	2/13/99		5663
Benzene		<25	ug/kg	25	2/13/99		5663
Carbon tetrachloride		<25	ug/kg	25	2/13/99		5663
Chlorobenzene		<25	ug/kg	25	2/13/99		5663
1,2-dichloroethane		<25	ug/kg	25	2/13/99		5663
1,1,2,2-tetrachloroethane		<25	ug/kg	25	2/13/99		5663
1,1,1-trichloroethane		<25	ug/kg	25	2/13/99		5663
1,1,2-trichloroethane		<25	ug/kg	25	2/13/99		5663
1,1,2-trichloroethylene		<25	ug/kg	25	2/13/99		5663
Chloroform		<25	ug/kg	25	2/13/99		5663
Dichlorobenzene		<50	ug/kg	50	2/13/99		5663
1,1-dichloroethylene		<25	ug/kg	25	2/13/99		5663
Dichloropropenes		<25	ug/kg	25	2/13/99		5663
Ethylbenzene		<25	ug/kg	25	2/13/99		5663
Bromodichloromethane		<25	ug/kg	25	2/13/99		5663
Bromomethane		<125	ug/kg	125	2/13/99		5663
Chloromethane		<25	ug/kg	25	2/13/99		5663
Dichlorodifluoromethane		<25	ug/kg	25	2/13/99		5663
Dichloromethane		<125	ug/kg	125	2/13/99		5663
Trichlorofluoromethane		<25	ug/kg	25	2/13/99		5663
Tetrachloroethylene		<25	ug/kg	25	2/13/99		5663
Toluene		<25	ug/kg	25	2/13/99		5663
Trichloroethylene		<25	ug/kg	25	2/13/99		5663
Vinyl chloride		<50	ug/kg	50	2/13/99		5663
m,p-xylene		<25	ug/kg	25	2/13/99		5663
o-xylene		<25	ug/kg	25	2/13/99		5663
1,1-dichloroethane		<25	ug/kg	25	2/13/99		5663
Ethylene dibromide		<25	ug/kg	25	2/13/99		5663
cis-1,2-dichlorethylene		<25	ug/kg	25	2/13/99		5663
trans-1,2-dichloroethylene		<25	ug/kg	25	2/13/99		5663
Methylene chloride		<125	ug/kg	125	2/13/99		5663
Surr. Dibromofluoromethane		98	%	72-130	2/13/99		5663
Surr. Toluene-d8		106	%	77-127	2/13/99		5663
Surr. 4-Bromofluorobenzene		96	%	72-131	2/13/99		5663

Order ID Number: 9902000193/194 Date: 3/1/99

Project Name: Shell Westgate Page #15

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Benzidine		<2.5	mg/kg	2.5	02/16/99	5537	5661
Hexachlorobenzene		<0.25	mg/kg	0.25	02/16/99	5537	5661
Pentachlorobenzene		<0.25	mg/kg	0.25	02/16/99	5537	5661
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	02/16/99	5537	5661
Hexachloroethane		<0.25	mg/kg	0.25	02/16/99	5537	5661
2,4-dichlorphenol		<1.25	mg/kg	1.25	02/16/99	5537	5661
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	02/16/99	5537	5661
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	02/16/99	5537	5661
bis (2-chloroethly) ether		<1.25	mg/kg	1.25	02/16/99	5537	5661
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	02/16/99	5537	5661
bis (chloromethyl) ether		<1.25	mg/kg	1.25	02/16/99	5537	5661
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	02/16/99	5537	5661
2,4-dinitrotoluene		<0.25	mg/kg	0.25	02/16/99	5537	5661
Diphenylhydrazine		<1.25	mg/kg	1.25	02/16/99	5537	5661
Hexachlorobutadiene		<0.25	mg/kg	0.25	02/16/99	5537	5661
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	02/16/99	5537	5661
Isophorone		<1.25	mg/kg	1.25	02/16/99	5537	5661
Nitrobenzene		<0.25	mg/kg	0.25	02/16/99	5537	5661
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	02/16/99	5537	5661
2,4-dinitrophenols		<1.25	mg/kg	1.25	02/16/99	5537	5661
n-nitrosodiethylamine		<0.25	mg/kg	0.25	02/16/99	5537	5661
[illegible]-nitrosodimethylamine		<0.25	mg/kg	0.25	02/16/99	5537	5661
[illegible]nitrosodibutylamine		<1.25	mg/kg	1.25	02/16/99	5537	5661
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	02/16/99	5537	5661
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	02/16/99	5537	5661
Pentachlorophenol		<1.25	mg/kg	1.25	02/16/99	5537	5661
Dibutyl phthalate		<0.25	mg/kg	0.25	02/16/99	5537	5661
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	02/16/99	5537	5661
Diethyl phthalate		<0.25	mg/kg	0.25	02/16/99	5537	5661
Dimethyl phthalate		<0.25	mg/kg	0.25	02/16/99	5537	5661
Anthracene		<0.25	mg/kg	0.25	02/16/99	5537	5661
3,4-Benzofluoranthene		<0.25	mg/kg	0.25	02/16/99	5537	5661
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	02/16/99	5537	5661
Fluoranthene		<0.25	mg/kg	0.25	02/16/99	5537	5661
Fluorene		<0.25	mg/kg	0.25	02/16/99	5537	5661
Phenanthrene		<0.25	mg/kg	0.25	02/16/99	5537	5661
Pyrene		<0.25	mg/kg	0.25	02/16/99	5537	5661
Naphthalene		<0.25	mg/kg	0.25	02/16/99	5537	5661
1-methylnaphthalene		<0.25	mg/kg	0.25	02/16/99	5537	5661
2-methylnaphthalene		<0.25	mg/kg	0.25	02/16/99	5537	5661
Benzo-a-pyrene		<0.25	mg/kg	0.25	02/16/99	5537	5661
Phenol		<0.25	mg/kg	0.25	02/16/99	5537	5661
Surr. 2-Fluorophenol		64	%	25-121	02/16/99	5537	5661
Surr. Phenol-d6		62	%	24-113	02/16/99	5537	5661
Surr. Nitrobenzene-d5		53	%	23-120	02/16/99	5537	5661
Surr. 2-Fluorobiphenyl		59	%	30-115	02/16/99	5537	5661
[illegible]urr. 2,4,6-Tribromophenol		53	%	19-122	02/16/99	5537	5661
[illegible]rr. Terphenyl-d14		67	%	28-137	02/16/99	5537	5661

Order ID Number: 9902000193/194 Date: 3/1/99
Project Name: Shell Westgate Page #16

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Benzidine		<2.5	mg/kg	2.5	02/17/99	5537	5660
Hexachlorobenzene		<0.25	mg/kg	0.25	02/17/99	5537	5660
Pentachlorobenzene		<0.25	mg/kg	0.25	02/17/99	5537	5660
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	02/17/99	5537	5660
Hexachloroethane		<0.25	mg/kg	0.25	02/17/99	5537	5660
2,4-dichlorphenol		<1.25	mg/kg	1.25	02/17/99	5537	5660
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	02/17/99	5537	5660
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	02/17/99	5537	5660
bis (2-chloroethly) ether		<1.25	mg/kg	1.25	02/17/99	5537	5660
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	02/17/99	5537	5660
bis (chloromethyl) ether		<1.25	mg/kg	1.25	02/17/99	5537	5660
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	02/17/99	5537	5660
2,4-dinitrotoluene		<0.25	mg/kg	0.25	02/17/99	5537	5660
Diphenylhydrazine		<1.25	mg/kg	1.25	02/17/99	5537	5660
Hexachlorobutadiene		<0.25	mg/kg	0.25	02/17/99	5537	5660
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	02/17/99	5537	5660
Isophorone		<1.25	mg/kg	1.25	02/17/99	5537	5660
Nitrobenzene		<0.25	mg/kg	0.25	02/17/99	5537	5660
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	02/17/99	5537	5660
2,4-dinitrophenols		<1.25	mg/kg	1.25	02/17/99	5537	5660
n-nitrosodiethylamine		<0.25	mg/kg	0.25	02/17/99	5537	5660
N-nitrosodimethylamine		<0.25	mg/kg	0.25	02/17/99	5537	5660
-nitrosodibutylamine		<1.25	mg/kg	1.25	02/17/99	5537	5660
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	02/17/99	5537	5660
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	02/17/99	5537	5660
Pentachlorophenol		<1.25	mg/kg	1.25	02/17/99	5537	5660
Dibutyl phthalate		<0.25	mg/kg	0.25	02/17/99	5537	5660
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	02/17/99	5537	5660
Diethyl phthalate		<0.25	mg/kg	0.25	02/17/99	5537	5660
Dimethyl phthalate		<0.25	mg/kg	0.25	02/17/99	5537	5660
Anthracene		<0.25	mg/kg	0.25	02/17/99	5537	5660
3,4-Benzofluoranthene		<0.25	mg/kg	0.25	02/17/99	5537	5660
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	02/17/99	5537	5660
Fluoranthene		<0.25	mg/kg	0.25	02/17/99	5537	5660
Fluorene		<0.25	mg/kg	0.25	02/17/99	5537	5660
Phenanthrene		<0.25	mg/kg	0.25	02/17/99	5537	5660
Pyrene		<0.25	mg/kg	0.25	02/17/99	5537	5660
Naphthalene		<0.25	mg/kg	0.25	02/17/99	5537	5660
1-methylnaphthalene		<0.25	mg/kg	0.25	02/17/99	5537	5660
2-methylnaphthalene		<0.25	mg/kg	0.25	02/17/99	5537	5660
Benzo-a-pyrene		<0.25	mg/kg	0.25	02/17/99	5537	5660
Phenol		<0.25	mg/kg	0.25	02/17/99	5537	5660
Surr. 2-Fluorophenol		58	%	25-121	02/17/99	5537	5660
Surr. Phenol-d6		65	%	24-113	02/17/99	5537	5660
Surr. Nitrobenzene-d5		57	%	23-120	02/17/99	5537	5660
Surr. 2-Fluorobiphenyl		63	%	30-115	02/17/99	5537	5660
Surr. 2,4,6-Tribromophenol		61	%	19-122	02/17/99	5537	5660
urr. Terphenyl-d14		62	%	28-137	02/17/99	5537	5660

Quality Control Report
Blanks

Order ID Number: 9902000193/194
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/1/99
Page #17

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
PCB		<0.1	mg/kg	0.1	02/16/99	5535	5658
Arsenic		<0.50	mg/kg	0.50	02/11/99	5530	5653
Barium		<0.50	mg/kg	0.50	02/11/99	5530	5653
Cadmium		<0.10	mg/kg	0.10	02/11/99	5530	5653
Chromium		<0.50	mg/kg	0.50	02/11/99	5530	5653
Lead		<0.50	mg/kg	0.50	02/11/99	5530	5653
Total Mercury		<0.10	mg/kg	0.10	02/12/99	5532	5655
Selenium		<0.50	mg/kg	0.50	03/01/99	5530	5739
Silver		<0.50	mg/kg	0.50	02/11/99	5530	5653
Uranium		<5.0	mg/kg	5.0	02/15/99	5530	5653
Copper		<1.0	mg/kg	1.0	02/11/99	5530	5653
Iron		<5.0	mg/kg	5.0	02/15/99	5530	5653
Manganese		<1.0	mg/kg	1.0	02/11/99	5530	5653
Zinc		<2.0	mg/kg	2.0	02/11/99	5530	5653
Aluminum		<10	mg/kg	10	02/15/99	5530	5653
Boron		<10	mg/kg	10	02/11/99	5530	5653
[illegible]obalt		<0.50	mg/kg	0.50	03/01/99	5530	5739
[illegible]olybdenum		<1.0	mg/kg	1.0	02/11/99	5530	5653
Nickel		<0.50	mg/kg	0.50	02/15/99	5530	5653
Cyanide		<0.20	mg/kg	0.2	02/16/99	5536	5659
Fluoride		<0.1	mg/kg	0.1	02/12/99	5531	5654
Nitrate		<0.2	mg/kg	0.2	02/12/99	5531	5654
Chloride		<0.5	mg/kg	0.5	02/12/99	5531	5654
Sulfate		<0.5	mg/kg	0.5	02/12/99	5531	5654
Total Dissolved Solids		<10	mg/kg	10	02/15/99	5533	5656
TRPHC		<10.0	mg/kg	10	02/15/99	5490	5606
Total Phenols		<0.50	mg/kg	0.50	02/15/99	5534	5657

Quality Control Report
Continuing Calibration Verification Standard

[redacted]liff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/01/99
Page #18

Order ID Number: 9902000193/194
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	99	99	02/12/99	5662
1,1-Dichloroethene		100	ug/L	118	118	02/12/99	5662
Chloroform		100	ug/L	116	116	02/12/99	5662
1,2-Dichloropropane		100	ug/L	105	105	02/12/99	5662
Toluene		100	ug/L	106	106	02/12/99	5662
Chlorobenzene		100	ug/L	101	101	02/12/99	5662
Ethylbenzene		100	ug/L	106	106	02/12/99	5662
Surr. Dibromofluoromethane		100	ug/L	105	105	02/12/99	5662
Surr. Toluene-d8		100	ug/L	102	102	02/12/99	5662
Surr. 4-Bromofluorobenzene		100	ug/L	109	109	02/12/99	5662
Vinyl chloride		100	ug/L	100	100	02/13/99	5663
1,1-Dichloroethene		100	ug/L	102	102	02/13/99	5663
[redacted]hloroform		100	ug/L	99	99	02/13/99	5663
[redacted],2-Dichloropropane		100	ug/L	104	104	02/13/99	5663
Toluene		100	ug/L	100	100	02/13/99	5663
Chlorobenzene		100	ug/L	99	99	02/13/99	5663
Ethylbenzene		100	ug/L	100	100	02/13/99	5663
Surr. Dibromofluoromethane		100	ug/L	95	95	02/13/99	5663
Surr. Toluene-d8		100	ug/L	103	103	02/13/99	5663
Surr. 4-Bromofluorobenzene		100	ug/L	98	98	02/13/99	5663
Phenol		80	mg/L	80	100	02/16/99	5661
1,4-Dichlorobenzene		80	mg/L	75	94	02/16/99	5661
2-nitrophenol		80	mg/L	84	105	02/16/99	5661
2,4-Dichlorophenol		80	mg/L	79	99	02/16/99	5661
Hexachlorobutadiene		80	mg/L	78	98	02/16/99	5661
4-Chloro-3-methylphenol		80	mg/L	78	98	02/16/99	5661
2,4,6-Trichlorophenol		80	mg/L	83	104	02/16/99	5661
Acenaphthene		80	mg/L	78	98	02/16/99	5661
n-Nitrosodiphenylamine		80	mg/L	75	94	02/16/99	5661
Pentachlorophenol		80	mg/L	82	103	02/16/99	5661
Fluoranthene		80	mg/L	81	101	02/16/99	5661
Di-n-octylphthalate		80	mg/L	72	90	02/16/99	5661
Benzo(a)pyrene		80	mg/L	79	99	02/16/99	5661
Surr. 2-Fluorophenol		80	mg/L	94	118	02/16/99	5661
Surr. Phenol-d6		80	mg/L	93	116	02/16/99	5661
Surr. Nitroobenzene-d5		80	mg/L	89	111	02/16/99	5661
Surr. 2-Fluorobiphenyl		80	mg/L	87	109	02/16/99	5661
[redacted]Surr. 2,4,6-Tribromophenol		80	mg/L	93	116	02/16/99	5661
[redacted]Surr. Terphenyl-d14		80	mg/L	82	103	02/16/99	5661

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/01/99

Order ID Number: 9902000193/194
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Phenol		80	mg/L	76	95	02/17/99	5660
1,4-Dichlorobenzene		80	mg/L	75	94	02/17/99	5660
2-nitrophenol		80	mg/L	82	103	02/17/99	5660
2,4-Dichlorophenol		80	mg/L	76	95	02/17/99	5660
Hexachlorobutadiene		80	mg/L	82	103	02/17/99	5660
4-Chloro-3-methylphenol		80	mg/L	78	98	02/17/99	5660
2,4,6-Trichlorophenol		80	mg/L	81	101	02/17/99	5660
Acenaphthene		80	mg/L	80	100	02/17/99	5660
n-Nitrosodiphenylamine		80	mg/L	81	101	02/17/99	5660
Pentachlorophenol		80	mg/L	72	90	02/17/99	5660
Fluoranthene		80	mg/L	82	103	02/17/99	5660
Di-n-octylphthalate		80	mg/L	65	81	02/17/99	5660
Benzo(a)pyrene		80	mg/L	79	99	02/17/99	5660
Surr. 2-Fluorophenol		80	mg/L	81	101	02/17/99	5660
Surr. Phenol-d6		80	mg/L	81	101	02/17/99	5660
Surr. Nitroobenzene-d5		80	mg/L	94	118	02/17/99	5660
Surr. 2-Fluorobiphenyl		80	mg/L	90	113	02/17/99	5660
Surr. 2,4,6-Tribromophenol		80	mg/L	94	118	02/17/99	5660
Surr. Terphenyl-d14		80	mg/L	72	90	02/17/99	5660

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/01/99

Order ID Number: 9902000193/194
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
PCB		0.40	mg/L	0.45	113	02/16/99	5658
Arsenic		1.0	mg/L	0.97	97	02/11/99	5653
Barium		1.0	mg/L	0.98	98	02/11/99	5653
Cadmium		1.0	mg/L	1.0	100	02/11/99	5653
Chromium		1.0	mg/L	0.98	98	02/11/99	5653
Lead		1.0	mg/L	0.99	99	02/11/99	5653
Total Mercury		5.0	mg/L	4.8	96	02/12/99	5655
Selenium		1.0	mg/L	1.0	100	03/01/99	5739
Silver		0.20	mg/L	0.19	95	02/11/99	5653
Uranium		1.0	mg/L	1.10	110	02/15/99	5653
[illegible]pper		1.0	mg/L	0.98	98	02/11/99	5653
[illegible]n		1.0	mg/L	1.0	100	02/15/99	5653
Manganese		1.0	mg/L	0.99	99	02/11/99	5653
Zinc		1.0	mg/L	1.0	100	02/11/99	5653
Aluminum		1.0	mg/L	1.0	100	02/15/99	5653
Boron		1.0	mg/L	0.98	98	02/11/99	5653
Cobalt		1.0	mg/L	1.0	100	02/11/99	5653
Molybdenum		1.0	mg/L	0.98	98	03/01/99	5739
Nickel		1.0	mg/L	1.0	100	02/15/99	5653
Cyanide		0.120	mg/L	0.114	95	02/16/99	5659
Fluoride		2.5	mg/L	2.545	102	02/12/99	5654
Nitrate		5.0	mg/L	4.775	96	02/12/99	5654
Chloride		12.5	mg/L	11.88	95	02/12/99	5654
Sulfate		12.5	mg/L	12.165	97	02/12/99	5654
TDS		1000	mg/L	993	99	05/15/99	5656
pH		7.0	s.u.	7.0	100	02/11/99	5652
TRPHC		100	mg/L	104	104	02/15/99	5606
Total Phenol		0.80	mg/L	0.787	98	02/15/99	5657

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/1/99

Order ID Number: 9902000193/194
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene	*	ug/L	<1	100	115	115	100	117	117	2	2/12/99		5662
Benzene	*	ug/L	<1	100	115	115	100	115	115	0	2/12/99		5662
Trichloroethene	*	ug/L	<1	100	99	99	100	101	101	2	2/12/99		5662
Toluene	*	ug/L	<1	100	110	110	100	110	110	0	2/12/99		5662
Chlorobenzene	*	ug/L	<1	100	107	107	100	108	108	1	2/12/99		5662
Surr. Dibromofluoromethane		%	106	100	107	107	100	109	109	2	2/12/99		5662
Surr. Toluene-d8		%	103	100	104	104	100	104	104	0	2/12/99		5662
Surr. 4-Bromofluorobenzene		%	107	100	108	108	100	107	107	1	2/12/99		5662
[illegible]-Dichloroethene		ug/kg	<25	100	95	95	100	91	91	4	2/13/99		5663
[illegible]nzene		ug/kg	<25	100	106	106	100	105	105	1	2/13/99		5663
Trichloroethene		ug/kg	<25	100	106	106	100	104	104	2	2/13/99		5663
Toluene		ug/kg	<25	100	105	105	100	106	106	1	2/13/99		5663
Chlorobenzene		ug/kg	<25	100	107	107	100	99	99	8	2/13/99		5663
Surr. Dibromofluoromethane		%	99	100	99	99	100	99	99	0	2/13/99		5663
Surr. Toluene-d8		%	104	100	104	104	100	104	104	0	2/13/99		5663
Surr. 4-Bromofluorobenzene		%	96	100	96	96	100	98	98	1	2/13/99		5663
Phenol		mg/kg	<0.25	100	59	59	100	59	59	0	2/16/99	5537	5661
2-Chlorophenol		mg/kg	<1.25	100	56	56	100	55	55	2	2/16/99	5537	5661
1,4-Dichlorobenzene		mg/kg	<0.25	100	55	55	100	54	54	2	2/16/99	5537	5661
n-Nitrosodi-n-propylamine		mg/kg	<0.25	100	51	51	100	50	50	2	2/16/99	5537	5661
1,2,4-trichlorobenzene		mg/kg	<0.25	100	48	48	100	48	48	0	2/16/99	5537	5661
4-Chloro-3-methylphenol		mg/kg	<0.25	100	67	67	100	65	65	3	2/16/99	5537	5661
Acenaphthene		mg/kg	<0.25	100	62	62	100	60	60	3	2/16/99	5537	5661
4-Nitrophenol		mg/kg	<0.25	100	57	57	100	59	59	3	2/16/99	5537	5661
2,4-Dinitrotoluene		mg/kg	<0.25	100	71	71	100	72	72	1	2/16/99	5537	5661
Pentachlorophenol		mg/kg	<0.25	100	33	33	100	37	37	11	2/16/99	5537	5661
Pyrene		mg/kg	<0.25	100	75	75	100	80	80	6	2/16/99	5537	5661
Surr. 2-Fluorophenol		%	54	100	48	48	100	49	49	2	2/16/99	5537	5661
Surr. Phenol-d6		%	59	100	56	56	100	57	57	2	2/16/99	5537	5661
Surr. Nitrobenzene-d5		%	55	100	52	52	100	53	53	2	2/16/99	5537	5661
Surr. 2-Fluorobiphenyl		%	56	100	55	55	100	57	57	4	2/16/99	5537	5661
Surr. 2,4,6-Tribromophenol		%	48	100	68	68	100	72	72	6	2/16/99	5537	5661
Surr. Terphenyl-d14		%	76	100	80	80	100	85	85	6	2/16/99	5537	5661

[illegible]S'd used for spike and spike duplicate.

Order ID Number: 9902000193/194
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/1/99
Page #22

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Phenol		mg/kg	<0.25	100	59	59	100	59	59	0	2/17/99	5537	5660
2-Chlorophenol		mg/kg	<1.25	100	56	56	100	55	55	2	2/17/99	5537	5660
1,4-Dichlorobenzene		mg/kg	<0.25	100	55	55	100	54	54	2	2/17/99	5537	5660
n-Nitrosodi-n-propylamine		mg/kg	<0.25	100	51	51	100	50	50	2	2/17/99	5537	5660
1,2,4-trichlorobenzene		mg/kg	<0.25	100	48	48	100	48	48	0	2/17/99	5537	5660
4-Chloro-3-methylphenol		mg/kg	<0.25	100	67	67	100	65	65	3	2/17/99	5537	5660
Acenaphthene		mg/kg	<0.25	100	62	62	100	60	60	3	2/17/99	5537	5660
4-Nitrophenol		mg/kg	<0.25	100	57	57	100	59	59	3	2/17/99	5537	5660
2,4-Dinitrotoluene		mg/kg	<0.25	100	71	71	100	72	72	1	2/17/99	5537	5660
Pentachlorophenol		mg/kg	<0.25	100	33	33	100	37	37	11	2/17/99	5537	5660
Pyrene		mg/kg	<0.25	100	75	75	100	80	80	6	2/17/99	5537	5660
Surr. 2-Fluorophenol		%	115	100	48	48	100	49	49	2	2/17/99	5537	5660
Surr. Phenol-d6		%	130	100	56	56	100	57	57	2	2/17/99	5537	5660
Surr. Nitrobenzene-d5		%	113	100	52	52	100	53	53	2	2/17/99	5537	5660
Surr. 2-Fluorobiphenyl		%	125	100	55	55	100	57	57	4	2/17/99	5537	5660
Surr. 2,4,6-Tribromophenol		%	121	100	68	68	100	72	72	6	2/17/99	5537	5660
Surr. Terphenyl-d14		%	123	100	80	80	100	85	85	6	2/17/99	5537	5660
PCB		mg/kg	<0.1	0.5	0.52	114	0.5	0.53	106	2	2/16/99	5535	5658
Arsenic		mg/kg	<0.50	200	175	88	200	180	90	3	2/11/99	5530	5653
Barium		mg/kg	130	200	303	87	200	289	80	8	2/11/99	5530	5653
Cadmium		mg/kg	0.43	200	161	81	200	161	81	0	2/11/99	5530	5653
Chromium		mg/kg	3.7	200	175	86	200	172	86	2	2/11/99	5530	5653
Lead		mg/kg	0.85	200	167	85	200	164	82	2	2/11/99	5530	5653
Total Mercury		mg/kg	<0.10	2.5	2.1	85	2.5	2.2	88	5	2/12/99	5532	5655
Total Mercury		mg/kg	<0.10	2.5	2.2	85	2.2	2.2	100	0	2/12/99	5532	5655
Selenium		mg/kg	<0.50	200	191	96	200	191	96	0	3/1/99	5530	5739
Silver		mg/kg	16	40	48	80	40	46	75	6	2/11/99	5530	5653
Uranium		mg/kg	<5.0	200	194	97	200	183	92	6	2/15/99	5530	5653
Copper		mg/kg	4.1	200	187	91	200	186	91	1	2/11/99	5530	5653
Iron	*	mg/kg	<5.0	100	93	93	100	89	89	4	2/15/99	5530	5653
Manganese		mg/kg	29	200	203	87	200	202	87	0	2/11/99	5530	5653
Zinc		mg/kg	5.2	200	179	87	200	172	83	4	2/11/99	5530	5653
Aluminum	*	mg/kg	<10	200	234	117	200	231	116	1	2/15/99	5530	5653
Boron		mg/kg	<10	200	195	98	200	193	97	1	2/11/99	5530	5653
Cobalt		mg/kg	<0.50	200	180	90	200	182	91	1	3/1/99	5530	5739
Molybdenum		mg/kg	1.8	20	16	80	20	17	85	6	2/11/99	5530	5653
Nickel	*	mg/kg	<0.50	200	182	91	200	178	89	2	2/15/99	5530	5653
Cyanide	*	mg/kg	<0.20	3.0	2.74	91	3.0	2.71	90	1	2/16/99	5536	5659
Fluoride		mg/kg	3.44	25	27.85	98	25.0	27.61	97	1	2/12/99	5531	5654
Nitrate		mg/kg	7.37	50	53.00	106	50	53.13	104	0	2/12/99	5531	5654
Chloride		mg/kg	160.98	125	281.73	97	125	281.98	97	0	2/12/99	5531	5654
Sulfate		mg/kg	265.56	125	392.01	101	125	392.11	101	0	2/12/99	5531	5654
TRPHC		mg/kg	<10	250	203	81	250	207	83	2	2/15/99	5490	5606
Total Phenol		mg/kg	0.609	20.0	19.4	97	20.0	19.9	96	3	2/15/99	5534	5657

LCS's used for spike and spike duplicate.

Quality Control Report
Duplicate

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/01/99
Page #23

Order ID Number: 9902000193/194
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Duplicate Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	9.1	9.1	0	2/11/99	5529	5652
TDS		mg/kg	6,600	6,700	2	2/15/99	5533	5656

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-
Attn: Nell Green

Report Date: *19-Feb-99*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Our Lab#: MEL99-01801 **Your Sample ID:** 118710
Date Logged In: 2/12/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:** Shell
Project #: **Date Submitted to Lab:** 2/12/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/9/99

EPA Method	Analyst	Prep Date	Analysis Date
160.3	DJF		2/16/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	85.5 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	2/16/99	2/18/99

CAS Number	Parameter	Result	Typical Report Limit
Diluted 1:100 due to matrix interference			
309-00-2	Aldrin	< 2.0 mg/kg	0.02
57-74-9	Chlordane(Total)	< 10 mg/kg	0.1
50-29-3	4,4'-DDT	< 3.0 mg/kg	0.03
60-57-1	Dieldrin	< 2.0 mg/kg	0.02
959-98-8	Endosulfan I	< 3.0 mg/kg	0.03
72-20-8	Endrin	< 5.0 mg/kg	0.05
76-44-8	Heptachlor	< 3.0 mg/kg	0.03

6878 S. STATE ROUTE 100 • P.O. BOX 76 • MELMORE, OH 44845-9999
PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-01801	8081	Decachlorobiphenyl (Surr)	2 %R *	41	129
		Surrogate diluted out due to matrix interference			
MEL99-01801	8081	Tetrachloro-m-xylene (Surr)	1 %R *	27	119
		Surrogate diluted out due to matrix interference			

End of Report

Report Approved By: Wade E. Bayer

Wade E. Bayer

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Your Sample ID: 118710

Lab Number MEL99-01801

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-
Attn: Nell Green

Report Date: *19-Feb-99*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Our Lab#: MEL99-01802 **Your Sample ID:** 118711
Date Logged In: 2/12/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:** Shell
Project #: **Date Submitted to Lab:** 2/12/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/9/99

EPA Method	Analyst	Prep Date	Analysis Date
160.3	DJF		2/16/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	93.4 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	2/16/99	2/18/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 mg/kg	0.02
57-74-9	Chlordane(Total)	< 0.10 mg/kg	0.1
50-29-3	4,4'-DDT	< 0.03 mg/kg	0.03
60-57-1	Dieldrin	< 0.02 mg/kg	0.02
959-98-8	Endosulfan I	< 0.03 mg/kg	0.03
72-20-8	Endrin	< 0.05 mg/kg	0.05
76-44-8	Heptachlor	< 0.03 mg/kg	0.03

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PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-01802	8081	Decachlorobiphenyl (Surr)	85 %R	41	129
MEL99-01802	8081	Tetrachloro-m-xylene (Surr)	69 %R	27	119

End of Report

Report Approved By: Wade E. Bayer

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Your Sample ID: 118711

Lab Number MEL99-01802

6878 S. STATE ROUTE 100 • P.O. BOX 76 • MELMORE, OH 44845-9999
PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565 **Report Date:** *19-Feb-99*

Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Attn: Nell Green

Our Lab#: MEL99-01803 **Your Sample ID:** 118712
Date Logged In: 2/12/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:** Shell
Project #: **Date Submitted to Lab:** 2/12/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/9/99

EPA Method	Analyst	Prep Date	Analysis Date
160.3	DJF		2/16/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	92.3 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	2/16/99	2/18/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 mg/kg	0.02
57-74-9	Chlordane(Total)	< 0.10 mg/kg	0.1
50-29-3	4,4'-DDT	< 0.03 mg/kg	0.03
60-57-1	Dieldrin	< 0.02 mg/kg	0.02
959-98-8	Endosulfan I	< 0.03 mg/kg	0.03
72-20-8	Endrin	< 0.05 mg/kg	0.05
76-44-8	Heptachlor	< 0.03 mg/kg	0.03

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PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-01803	8081	Decachlorobiphenyl (Surr)	85 %R	41	129
MEL99-01803	8081	Tetrachloro-m-xylene (Surr)	64 %R	27	119

End of Report

Report Approved By: Wade E. Bayer

This report shall not be reproduced, except in its entirety, without the written approval of the laboratory.

Your Sample ID: 118712

Lab Number MEL99-01803

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Mitchell Davis and Associates. Inc.

Post Office Box 606
Gramercy, LA 70052-0606
1-800-679-9874 Phone: 225-869-7000 Fax: (225) 869-7002

Mitchell Davis and Associates, Inc.

Laboratory Analysis Report

Prepared For:

Trace Analysis, Inc.
Nell Green
6701 Aberdeen Ave., Ste. 9
Lubbock, TX
Phone: 806-794-1296
Fax: 806-794-1298

Quality Assurance Review

Mitchell Davis and Associates, Inc. assumes no liability for the use or interpretation of any analytical results other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

Mitchell Davis and Associates. Inc.

Post Office Box 606
Gramercy, LA 70052-0606
1-800-679-9874 Phone: 225-869-7000 Fax: (225) 869-7002

Tracking Number:	DAV-99-0204	**P.O. Number:**	Verbal
Client ID:	118710	**Davis Sample ID:**	DAV-99-0511
Date Sampled:	2/9/99	**Date Received:**	2/12/99
Time Sampled:	N/A	**Time Received:**	1230
Type of Sample:	Solid	**Date of Report:**	2/16/99

Analysis Description	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	2.49	1.69	pCi/gm	0.09	0.06	Bq/gm	EPA 901.1M	2/16/99 1526	md
Ra-228	<0.74	N/A	pCi/gm	<0.03	N/A	Bq/gm	EPA 901.1M	2/16/99 1526	md
Pb-210	<2.23	N/A	pCi/gm	<0.08	N/A	Bq/gm	EPA 901.1M	2/16/99 1526	md
Total Activity	7.83	N/A	pCi/gm	0.29	N/A	Bq/gm	EPA 901.1M	2/16/99 1526	md

Notes:

Quality Assurance Review

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1-800-679-9874 Phone: 225-869-7000 Fax: (225) 869-7002

Tracking Number:	DAV-99-0204	**P.O. Number:**	Verbal
Client ID:	118711	**Davis Sample ID:**	DAV-99-0512
Date Sampled:	2/9/99	**Date Received:**	2/12/99
Time Sampled:	N/A	**Time Received:**	1230
Type of Sample:	Solid	**Date of Report:**	2/16/99

Analysis Description	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	2.09	1.51	pCi/gm	0.08	0.06	Bq/gm	EPA 901.1M	2/14/99 1538	md
Ra-228	<0.54	N/A	pCi/gm	<0.02	N/A	Bq/gm	EPA 901.1M	2/14/99 1538	md
Pb-210	<1.58	N/A	pCi/gm	<0.06	N/A	Bq/gm	EPA 901.1M	2/14/99 1538	md
Total Activity	13.19	N/A	pCi/gm	0.49	N/A	Bq/gm	EPA 901.1M	2/14/99 1538	md

Notes:

Quality Assurance Review

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Tracking Number:	DAV-99-0204	**P.O. Number:**	Verbal
Client ID:	118712	**Davis Sample ID:**	DAV-99-0513
Date Sampled:	2/9/99	**Date Received:**	2/12/99
Time Sampled:	N/A	**Time Received:**	1230
Type of Sample:	Solid	**Date of Report:**	2/16/99

Analysis Description	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Result	Analysis Error ± 2σ	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	1.68	1.44	pCi/gm	0.06	0.05	Bq/gm	EPA 901.1M	2/14/99 1626	md
Ra-228	<0.63	N/A	pCi/gm	<0.02	N/A	Bq/gm	EPA 901.1M	2/14/99 1626	md
Pb-210	<1.83	N/A	pCi/gm	<0.07	N/A	Bq/gm	EPA 901.1M	2/14/99 1626	md
Total Activity	3.44	N/A	pCi/gm	0.13	N/A	Bq/gm	EPA 901.1M	2/14/99 1626	md

Notes:

Quality Assurance Review

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1-800-679-9874 Phone: 225-869-7000 Fax: (225) 869-7002

Notes:

Comments:

1. Soil and Sludge analysis results are reported on a wet basis or as received basis unless otherwise indicated.
2. The data in this report are within the limits of uncertainty specified in the reference method unless otherwise specified.
3. Modified analysis procedures are procedures that are modified to meet certain specifications. An example would be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix.
4. Derived Air Concentrations and Effluent Release Concentrations are obtained from 10 CFR 20 Appendix B.
5. Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring decay chains and other prominent radioactive isotopes. Total activity may be lower than actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of isotopes that emit solely alpha or beta radiation.
6. Ra-228 is determined via secular equilibrium with its daughter, Actinium 228. (Gamma Spectroscopy only)
7. U-238 is determined via secular equilibrium with its daughter, Thorium 234. (Gamma Spectroscopy only).
8. All Gamma Spectroscopy was performed using high purity germanium detectors (HPGE).

Method References:

1. EPA 600/4-80-032, Prescribed Procedures for the Measurement of Radioactivity in Drinking Water, August 1980.
2. Standard Methods for the Examination of Water and Waste Water, 18th, 1992.
3. EPA SW-846, Test Methods for Evaluating Solid Waste, Third Edition, (9/86). (Updated through 1995)
4. EPA 600/4/79-020, Methods for Chemical Analysis of Water and Waste, March 1983.
5. HASL 300

Definitions:

1	BDL	Analyte not detected because the value was below the detection limit.
2.	ND	Not detected above the detection limit.
3.	Detection Limit	The minimum amount of the analyte that can be detected utilizing the specific analysis.
4.	B	Method Blank
5.	D	Method Duplicate
6.	MS	Matrix Spike
7.	S	Spike
8.	RS	Reference Spike
9.	SC	Subcontracted to qualified laboratory
10.	NR	Not Referenced

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118710-14

Page 1 of 1

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 193 / 194

Company Name: BBC International, Inc.
Phone #: (505) 397-6388
Address: (Street, City, Zip) 1324 W. Marland, Hobbs, NM 88240
Fax #: (505) 397-0397
Contact Person: Cliff P. Brunson
Invoice to: (If different from above) Shell E & P Technology Co. ATTN: Wayne Hamilton
Project #:
Project Name: Shell Westgate
Project Location: Hobbs, New Mexico
Sampler Signature: Shawn E. Ward

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
118710	TSB 16 18-20'	6	5 40z 1 VOA		✓					✓		✓	2/9/99	10:15a
11	TSB 16 63-65'	6	5 40z 1 VOA		✓					✓		✓	2/9/99	3:30p
12	TSB 16 63-65' D	6	5 40z 1 VOA		✓					✓		✓	2/9/99	3:30p
13	Field Blank	2	VOAs	✓										
14	Trip Blank	2	VOAs	✓										

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	See Attached (Full Suite)	Total Chlorides (300-1)	Total Metals (6010)	Turn Around Time if different from standard	Hold
		✓													✓				
		✓													✓				
		✓													✓				
										✓									
										✓									

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Shawn E Ward	2/9/99	5:00 p			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: Vicki Wadkins	Date: 2-11-99	Time: 10:00am

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

LAB USE ONLY

Intact (Y) N
Headspace Y / N
Temp 4 °
Log-in Review ANG

REMARKS: Agreed Upon Turnaround

Carrier # BUS 901984 6858

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/08/99
Page: #1

Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
118872	TSB-3 (2-3)	Soil	02/11/99	8:42 a.m.	02/12/99
118873	TSB-3 (3-5)	Soil	02/11/99	8:50 a.m.	02/12/99
118874	TSB-3 (18-20)	Soil	02/11/99	9:14 a.m.	02/12/99
118875	TSB-6 (2-3)	Soil	02/11/99	10:59 a.m	02/12/99
118876	TSB-6 (3-5)	Soil	02/11/99	11:08 a.m.	02/12/99
118877	TSB-6 (18-20)	Soil	02/11/99	11:26 a.m.	02/12/99
118878	Trip Blank	Water	02/11/99		02/12/99
118879	Field Blank	Water	02/11/99		02/12/99
118880	TSB-7 (2-3)	Soil	02/11/99	12:59 p.m.	02/12/99
118881	TSB-7 (3-5)	Soil	02/11/99	1:06 p.m.	02/12/99
118882	TSB-7 (8-10)	Soil	02/11/99	1:14 p.m.	02/12/99
118883	TSB-7 (28-30)	Soil	02/11/99	1:58 p.m.	02/12/99
118884	TSB-10 (2-3)	Soil	02/11/99	2:58 p.m.	02/12/99
118885	TSB-10 (3-5)	Soil	02/11/99	3:03 p.m.	02/12/99
118886	TSB-10 (8-10)	Soil	02/11/99	3:14 p.m.	02/12/99
118887	TSB-10 (28-30)	Soil	02/11/99	3:52 p.m.	02/12/99

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

This report shall not be reproduced except in its entirety, without written approval of the laboratory.
These results represent only the samples received in the laboratory.
This report consists of a total of 40 pages.

*ERL-Semi-volatiles 118875, 118876, 118877, 118880, 118881, 118884, 118885, 118886, elevated reporting limits due to hydrocarbons present.
* 118877 Semi-volatile surrogate out of control limits due to the presence of coeluting interfering ions.

Dr. Blair Leftwich
Director

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
Page: #2

Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-3 (2-3)

Sample Number: 118872

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin		<0.02	mg/kg	8081	2/17/99	2/18/99	SH			0.02
Chlordane		<0.10	mg/kg	8081	2/17/99	2/18/99	SH			0.10
DDT		<0.03	mg/kg	8081	2/17/99	2/18/99	SH			0.03
Dieldrin		<0.02	mg/kg	8081	2/17/99	2/18/99	SH			0.02
Endosulfan		<0.03	mg/kg	8081	2/17/99	2/18/99	SH			0.03
Endrin		<0.05	mg/kg	8081	2/17/99	2/18/99	SH			0.05
Heptachlor		<0.03	mg/kg	8081	2/17/99	2/18/99	SH			0.03

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99

Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-3 (3-5) Sample Number: 118873

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin		<0.02	mg/kg	8081	2/17/99	2/18/99	SH			0.02
Chlordane		<0.10	mg/kg	8081	2/17/99	2/18/99	SH			0.10
DDT		<0.03	mg/kg	8081	2/17/99	2/18/99	SH			0.03
Dieldrin		<0.02	mg/kg	8081	2/17/99	2/18/99	SH			0.02
Endosulfan		<0.03	mg/kg	8081	2/17/99	2/18/99	SH			0.03
Endrin		<0.05	mg/kg	8081	2/17/99	2/18/99	SH			0.05
Heptachlor		<0.03	mg/kg	8081	2/17/99	2/18/99	SH			0.03

Analytical Results Report

[redacted]ff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
Page: #4

Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-3 (18-20)

Sample Number: 118874

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin		<0.02	mg/kg	8081	2/17/99	2/18/99	SH			0.02
Chlordane		<0.10	mg/kg	8081	2/17/99	2/18/99	SH			0.10
DDT		<0.03	mg/kg	8081	2/17/99	2/18/99	SH			0.03
Dieldrin		<0.02	mg/kg	8081	2/17/99	2/18/99	SH			0.02
Endosulfan		<0.03	mg/kg	8081	2/17/99	2/18/99	SH			0.03
Endrin		<0.05	mg/kg	8081	2/17/99	2/18/99	SH			0.05
Heptachlor		<0.03	mg/kg	8081	2/17/99	2/18/99	SH			0.03

Analytical Results Report

[redacted]iff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
Page: #5

Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-6 (2-3) Sample Number: 118875

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	*ERL	<15	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	15
Hexachlorobenzene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Pentachlorobenzene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
1,2,4,5-tetrachlorobenzene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Hexachloroethane	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
2,4-dichlorphenol	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
2,4,5-trichlorophenol	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
2,4,6-trichlorophenol	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
bis (2-chloroethly) ether	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
bis (2-chloroisopropyl) ether	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
[redacted] (chloromethyl) ether	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
[redacted]3-dichlorobenzidine	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
2,4-dinitrotoluene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Diphenylhydrazine	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
Hexachlorobutadiene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Hexachlorocyclopentadiene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Isophorone	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
Nitrobenzene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
2,4-dinitro-o-cresol	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
2,4-dinitrophenols	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
n-nitrosodiethylamine	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
N-nitrosodimethylamine	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
N-nitrosodinbutylamine	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
N-nitrosodiphenylamine	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
N-nitrosopyrrolidine	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Pentachlorophenol	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
Dibutyl phthalate	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
di-2-ethylhexyl phthalate	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Diethyl phthalate	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Dimethyl phthalate	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Anthracene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
3,4-Benzofluoranthene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Benzo(k)fluoranthene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Fluoranthene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Fluorene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5

[redacted]RL - elevated reporting limit due to hydrocarbons present.

Analytical Results Report

[redacted] P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
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Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-6 (2-3) Sample Number: 118875

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Pyrene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Naphthalene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
1-methylnaphthalene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
2-methylnaphthalene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Benzo-a-pyrene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Phenol	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Surr. 2-Fluorophenol		70	%	8270C	02/13/99	02/17/99	SO	5553	5687	25-121
Surr. Phenol-d6		79	%	8270C	02/13/99	02/17/99	SO	5553	5687	24-113
[redacted]. Nitrobenzene-d5		73	%	8270C	02/13/99	02/17/99	SO	5553	5687	23-120
[redacted]r. 2-Fluorobiphenyl		78	%	8270C	02/13/99	02/17/99	SO	5553	5687	30-115
Surr. 2,4,6-Tribromophenol		68	%	8270C	02/13/99	02/17/99	SO	5553	5687	19-122
Surr. Terphenyl-d14		90	%	8270C	02/13/99	02/17/99	SO	5553	5687	28-137

*ERL - elevated reporting limit due to hydrocarbons present.

Analytical Results Report

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B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
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Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-6 (3-5) Sample Number: 118876

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
Hexachlorobenzene	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
Pentachlorobenzene	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
1,2,4,5-tetrachlorobenzene	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
Hexachloroethane	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
2,4-dichlorphenol	*ERL	<3.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	3.75
2,4,5-trichlorophenol	*ERL	<3.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	3.75
2,4,6-trichlorophenol	*ERL	<3.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	3.75
bis (2-chloroethly) ether	*ERL	<3.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	3.75
bis (2-chloroisopropyl) ether	*ERL	<3.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	3.75
[redacted]is (chloromethyl) ether	*ERL	<3.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	3.75
[redacted]3-dichlorobenzidine	*ERL	<3.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	3.75
2,4-dinitrotoluene	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
Diphenylhydrazine	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
Hexachlorobutadiene	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
Hexachlorocyclopentadiene	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
Isophorone	*ERL	<3.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	3.75
Nitrobenzene	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
2,4-dinitro-o-cresol	*ERL	<3.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	3.75
2,4-dinitrophenols	*ERL	<3.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	3.75
n-nitrosodiethylamine	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
N-nitrosodimethylamine	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
N-nitrosodibutylamine	*ERL	<3.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	3.75
N-nitrosodiphenylamine	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
N-nitrosopyrrolidine	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
Pentachlorophenol	*ERL	<3.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	3.75
Dibutyl phthalate	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
di-2-ethylhexyl phthalate	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
Diethyl phthalate	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
Dimethyl phthalate	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
Anthracene	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
3,4-Benzofluoranthene	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
Benzo(k)fluoranthene	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
Fluoranthene	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
Fluorene	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75

[redacted]ERL-elevated reporting limits due to hydrocarbons present.

Analytical Results Report

ff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
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Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-6 (3-5) Sample Number: 118876

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
Pyrene	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
Naphthalene	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
1-methylnaphthalene	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
2-methylnaphthalene	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
Benzo-a-pyrene	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
Phenol	*ERL	<0.75	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	0.75
Surr. 2-Fluorophenol		61	%	8270C	02/13/99	02/17/99	SO	5553	5687	25-121
Surr. Phenol-d6		67	%	8270C	02/13/99	02/17/99	SO	5553	5687	24-113
Surr. Nitrobenzene-d5		67	%	8270C	02/13/99	02/17/99	SO	5553	5687	23-120
Surr. 2-Fluorobiphenyl		72	%	8270C	02/13/99	02/17/99	SO	5553	5687	30-115
Surr. 2,4,6-Tribromophenol		58	%	8270C	02/13/99	02/17/99	SO	5553	5687	19-122
Surr. Terphenyl-d14		80	%	8270C	02/13/99	02/17/99	SO	5553	5687	28-137

*ERL-elevated reporting limits due to hydrocarbons present.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99

Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-6 (18-20) Sample Number: 118877

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	*ERL	<15	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	15
Hexachlorobenzene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Pentachlorobenzene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
1,2,4,5-tetrachlorobenzene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Hexachloroethane	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
2,4-dichlorphenol	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
2,4,5-trichlorophenol	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
2,4,6-trichlorophenol	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
bis (2-chloroethly) ether	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
bis (2-chloroisopropyl) ether	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
bis (chloromethyl) ether	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
3,3-dichlorobenzidine	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
2,4-dinitrotoluene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Diphenylhydrazine	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
Hexachlorobutadiene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Hexachlorocyclopentadiene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Isophorone	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
Nitrobenzene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
2,4-dinitro-o-cresol	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
2,4-dinitrophenols	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
n-nitrosodiethylamine	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
N-nitrosodimethylamine	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
N-nitrosodibutylamine	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
N-nitrosodiphenylamine	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
N-nitrosopyrrolidine	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Pentachlorophenol	*ERL	<7.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	7.5
Dibutyl phthalate	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
di-2-ethylhexyl phthalate	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Diethyl phthalate	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Dimethyl phthalate	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Anthracene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
3,4-Benzofluoranthene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Benzo(k)fluoranthene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Fluoranthene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Fluorene		1.8	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5

*ERL-elevated reporting limit due to hyrdocarbons present.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
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Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-6 (18-20) Sample Number: 118877

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene		3.3	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Pyrene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Naphthalene		7.6	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
1-methylnaphthalene		16	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
2-methylnaphthalene		17	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Benzo-a-pyrene	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Phenol	*ERL	<1.5	mg/kg	8270C	02/13/99	02/17/99	SO	5553	5687	1.5
Surr. 2-Fluorophenol		78	%	8270C	02/13/99	02/17/99	SO	5553	5687	25-121
Surr. Phenol-d6		92	%	8270C	02/13/99	02/17/99	SO	5553	5687	24-113
Surr. Nitrobenzene-d5	**	144	%	8270C	02/13/99	02/17/99	SO	5553	5687	23-120
Surr. 2-Fluorobiphenyl		94	%	8270C	02/13/99	02/17/99	SO	5553	5687	30-115
Surr. 2,4,6-Tribromophenol		74	%	8270C	02/13/99	02/17/99	SO	5553	5687	19-122
Surr. Terphenyl-d14		73	%	8270C	02/13/99	02/17/99	SO	5553	5687	28-137

*ERL-elevated reporting limit due to hydrocarbons present.

**Surrogate out of control limits due to the presence of coeluting interfering ions.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
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Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: Trip Blank Sample Number: 118878

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	5
Acrylonitrile		*<5*	*ug/L*	*S-8260B*	*02/13/99*	*02/13/99*	*JG*		*5685*	*5*
Benzene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Carbon tetrachloride		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Chlorobenzene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
1,2-dichloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
1,1,1-trichloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
1,1,2-trichloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Chloroform		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Dichlorobenzene		<2	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	2
1,1-dichloroethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Dichloropropenes		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Ethylbenzene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Bromodichloromethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Bromomethane		<5	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	5
Chloromethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Dichlorodifluoromethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Dichloromethane		<5	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	5
Trichlorofluoromethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Tetrachloroethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Toluene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Trichloroethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Vinyl chloride		<2	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	2
m,p-xylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
o-xylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
1,1-dichloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Ethylene dibromide		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Methylene chloride		<5	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	5
Surr. Dibromofluoromethane		110	%	S-8260B	02/13/99	02/13/99	JG		5685	72-130
Surr. Toluene-d8		104	%	S-8260B	02/13/99	02/13/99	JG		5685	77-127
Surr. 4-Bromofluorobenzene		107	%	S-8260B	02/13/99	02/13/99	JG		5685	72-131

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

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Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: Field Blank

Sample Number: 118879

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	5
Acrylonitrile		<5	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	5
Benzene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Carbon tetrachloride		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Chlorobenzene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
1,2-dichloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
1,1,1-trichloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
1,1,2-trichloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Chloroform		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Dichlorobenzene		<2	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	2
1,1-dichloroethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Dichloropropenes		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Ethylbenzene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Bromodichloromethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Bromomethane		<5	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	5
Chloromethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Dichlorodifluoromethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Dichloromethane		<5	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	5
Trichlorofluoromethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Tetrachloroethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Toluene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Trichloroethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Vinyl chloride		<2	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	2
m,p-xylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
o-xylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
1,1-dichloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Ethylene dibromide		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	1
Methylene chloride		<5	ug/L	S-8260B	02/13/99	02/13/99	JG		5685	5
Surr. Dibromofluoromethane		113	%	S-8260B	02/13/99	02/13/99	JG		5685	72-130
Surr. Toluene-d8		104	%	S-8260B	02/13/99	02/13/99	JG		5685	77-127
Surr. 4-Bromofluorobenzene		107	%	S-8260B	02/13/99	02/13/99	JG		5685	72-131

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
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Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-7 (2-3) Sample Number: 118880

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	*ERL	<250	mg/kg	8270C	2/13/99	2/16/99	MA	5553	5687	250
Hexachlorobenzene	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
Pentachlorobenzene	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
1,2,4,5-tetrachlorobenzene	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
Hexachloroethane	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
2,4-dichlorphenol	*ERL	<125	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	125
2,4,5-trichlorophenol	*ERL	<125	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	125
2,4,6-trichlorophenol	*ERL	<125	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	125
bis (2-chloroethly) ether	*ERL	<125	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	125
bis (2-chloroisopropyl) ether	*ERL	<125	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	125
bis (chloromethyl) ether	*ERL	<125	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	125
3,3-dichlorobenzidine	*ERL	<125	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	125
2,4-dinitrotoluene	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
Diphenylhydrazine	*ERL	<125	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	125
Hexachlorobutadiene	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
Hexachlorocyclopentadiene	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
Isophorone	*ERL	<125	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	125
Nitrobenzene	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
2,4-dinitro-o-cresol	*ERL	<125	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	125
2,4-dinitrophenols	*ERL	<125	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	125
n-nitrosodiethylamine	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
N-nitrosodimethylamine	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
N-nitrosodibutylamine	*ERL	<125	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	125
N-nitrosodiphenylamine	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
N-nitrosopyrrolidine	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
Pentachlorophenol	*ERL	<125	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	125
Dibutyl phthalate	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
di-2-ethylhexyl phthalate	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
Diethyl phthalate	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
Dimethyl phthalate	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
Anthracene	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
3,4-Benzofluoranthene	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
Benzo(k)fluoranthene	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
Fluoranthene	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
Fluorene	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25

*ERL - elevated reporting limit due to hydrocarbons present.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99

Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-7 (2-3) Sample Number: 118880

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
Pyrene	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
Naphthalene	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
1-methylnaphthalene		43	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
2-methylnaphthalene		39	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
Benzo-a-pyrene	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
Phenol	*ERL	<25	mg/kg	8270C	2/13/99	2/17/99	MA	5553	5687	25
Surr. 2-Fluorophenol		86	%	8270C	2/13/99	2/17/99	MA	5553	5687	25-121
Surr. Phenol-d6		89	%	8270C	2/13/99	2/17/99	MA	5553	5687	24-113
Surr. Nitrobenzene-d5		119	%	8270C	2/13/99	2/17/99	MA	5553	5687	23-120
Surr. 2-Fluorobiphenyl		95	%	8270C	2/13/99	2/17/99	MA	5553	5687	30-115
Surr. 2,4,6-Tribromophenol		58	%	8270C	2/13/99	2/17/99	MA	5553	5687	19-122
Surr. Terphenyl-d14		107	%	8270C	2/13/99	2/17/99	MA	5553	5687	28-137

*ERL - elevated reporting limit due to hydrocarbons present.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
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Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-7 (3-5) Sample Number: 118881

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	*ERL	<75	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	75
Hexachlorobenzene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
Pentachlorobenzene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
1,2,4,5-tetrachlorobenzene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
Hexachloroethane	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
2,4-dichlorphenol	*ERL	<37.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	37.5
2,4,5-trichlorophenol	*ERL	<37.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	37.5
2,4,6-trichlorophenol	*ERL	<37.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	37.5
bis (2-chloroethly) ether	*ERL	<37.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	37.5
bis (2-chloroisopropyl) ether	*ERL	<37.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	37.5
bis (chloromethyl) ether	*ERL	<37.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	37.5
3,3-dichlorobenzidine	*ERL	<37.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	37.5
2,4-dinitrotoluene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
Diphenylhydrazine	*ERL	<37.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	37.5
Hexachlorobutadiene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
Hexachlorocyclopentadiene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
Isophorone	*ERL	<37.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	37.5
Nitrobenzene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
2,4-dinitro-o-cresol	*ERL	<37.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	37.5
2,4-dinitrophenols	*ERL	<37.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	37.5
n-nitrosodiethylamine	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
N-nitrosodimethylamine	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
N-nitrosodibutylamine	*ERL	<37.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	37.5
N-nitrosodiphenylamine	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
N-nitrosopyrrolidine	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
Pentachlorophenol	*ERL	<37.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	37.5
Dibutyl phthalate	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
di-2-ethylhexyl phthalate	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
Diethyl phthalate	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
Dimethyl phthalate	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
Anthracene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
3,4-Benzofluoranthene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
Benzo(k)fluoranthene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
Fluoranthene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
Fluorene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5

*ERL-elevated reporting limit due to hydrocarbons presents.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
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Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-7 (3-5) Sample Number: 118881

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
Pyrene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
Naphthalene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
1-methylnaphthalene		15	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
2-methylnaphthalene		14	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
Benzo-a-pyrene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
Phenol	*ERL	<7.5	mg/kg	8270C	2/13/99	2/17/99	SO	5553	5687	7.5
Surr. 2-Fluorophenol		77	%	8270C	2/13/99	2/17/99	SO	5553	5687	25-121
Surr. Phenol-d6		83	%	8270C	2/13/99	2/17/99	SO	5553	5687	24-113
Surr. Nitrobenzene-d5		102	%	8270C	2/13/99	2/17/99	SO	5553	5687	23-120
Surr. 2-Fluorobiphenyl		89	%	8270C	2/13/99	2/17/99	SO	5553	5687	30-115
Surr. 2,4,6-Tribromophenol		55	%	8270C	2/13/99	2/17/99	SO	5553	5687	19-122
Surr. Terphenyl-d14		91	%	8270C	2/13/99	2/17/99	SO	5553	5687	28-137

*ERL-elevated reporting limit due to hydrocarbons presents.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
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Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-7 (8-10) Sample Number: 118882

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Hexachloroethane		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
bis (2-chloroethly) ether		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Isophorone		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
Nitrobenzene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Anthracene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Fluoranthene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Fluorene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
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Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-7 (8-10) Sample Number: 118882

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Pyrene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Naphthalene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Phenol		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Surr. 2-Fluorophenol		52	%	8270C	2/13/99	2/16/99	SO	5553	5686	25-121
Surr. Phenol-d6		57	%	8270C	2/13/99	2/16/99	SO	5553	5686	24-113
Surr. Nitrobenzene-d5		55	%	8270C	2/13/99	2/16/99	SO	5553	5686	23-120
Surr. 2-Fluorobiphenyl		58	%	8270C	2/13/99	2/16/99	SO	5553	5686	30-115
Surr. 2,4,6-Tribromophenol		49	%	8270C	2/13/99	2/16/99	SO	5553	5686	19-122
Surr. Terphenyl-d14		77	%	8270C	2/13/99	2/16/99	SO	5553	5686	28-137

Analytical Results Report

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Hobbs, NM 88240

Date: 3/8/99

Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-7 (28-30) Sample Number: 118883

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Hexachloroethane		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
bis (2-chloroethly) ether		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Isophorone		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
Nitrobenzene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Anthracene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Fluoranthene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Fluorene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25

Analytical Results Report

Cliff P. Brunson.
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1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99

Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-7 (28-30) Sample Number: 118883

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Pyrene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Naphthalene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Phenol		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Surr. 2-Fluorophenol		54	%	8270C	2/13/99	2/16/99	SO	5553	5686	25-121
Surr. Phenol-d6		59	%	8270C	2/13/99	2/16/99	SO	5553	5686	24-113
Surr. Nitrobenzene-d5		56	%	8270C	2/13/99	2/16/99	SO	5553	5686	23-120
Surr. 2-Fluorobiphenyl		58	%	8270C	2/13/99	2/16/99	SO	5553	5686	30-115
Surr. 2,4,6-Tribromophenol		47	%	8270C	2/13/99	2/16/99	SO	5553	5686	19-122
Surr. Terphenyl-d14		79	%	8270C	2/13/99	2/16/99	SO	5553	5686	28-137

Analytical Results Report

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Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-10 (2-3) Sample Number: 118884

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	*ERL	<250	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	250
Hexachlorobenzene	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
Pentachlorobenzene	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
1,2,4,5-tetrachlorobenzene	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
Hexachloroethane	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
2,4-dichlorphenol	*ERL	<125	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	125
2,4,5-trichlorophenol	*ERL	<125	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	125
2,4,6-trichlorophenol	*ERL	<125	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	125
bis (2-chloroethly) ether	*ERL	<125	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	125
bis (2-chloroisopropyl) ether	*ERL	<125	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	125
bis (chloromethyl) ether	*ERL	<125	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	125
3,3-dichlorobenzidine	*ERL	<125	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	125
2,4-dinitrotoluene	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
Diphenylhydrazine	*ERL	<125	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	125
Hexachlorobutadiene	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
Hexachlorocyclopentadiene	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
Isophorone	*ERL	<125	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	125
Nitrobenzene	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
2,4-dinitro-o-cresol	*ERL	<125	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	125
2,4-dinitrophenols	*ERL	<125	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	125
n-nitrosodiethylamine	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
N-nitrosodimethylamine	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
N-nitrosodibutylamine	*ERL	<125	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	125
N-nitrosodiphenylamine	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
N-nitrosopyrrolidine	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
Pentachlorophenol	*ERL	<125	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	125
Dibutyl phthalate	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
di-2-ethylhexyl phthalate	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
Diethyl phthalate	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
Dimethyl phthalate	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
Anthracene	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
3,4-Benzofluoranthene	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
Benzo(k)fluoranthene	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
Fluoranthene	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
Fluorene	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25

*ERL-elevated reporting limit due to hydrocarbons present.

Analytical Results Report

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1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
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Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-10 (2-3) Sample Number: 118884

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
Pyrene	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
Naphthalene	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
1-methylnaphthalene	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
2-methylnaphthalene	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
Benzo-a-pyrene	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
Phenol	*ERL	<25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	25
Surr. 2-Fluorophenol		66	%	8270C	2/13/99	2/16/99	SO	5553	5686	25-121
Surr. Phenol-d6		79	%	8270C	2/13/99	2/16/99	SO	5553	5686	24-113
Surr. Nitrobenzene-d5		82	%	8270C	2/13/99	2/16/99	SO	5553	5686	23-120
Surr. 2-Fluorobiphenyl		83	%	8270C	2/13/99	2/16/99	SO	5553	5686	30-115
Surr. 2,4,6-Tribromophenol		55	%	8270C	2/13/99	2/16/99	SO	5553	5686	19-122
Surr. Terphenyl-d14		88	%	8270C	2/13/99	2/16/99	SO	5553	5686	28-137

*ERL-elevated reporting limit due to hydrocarbons present.

Analytical Results Report

Cliff P. Brunson.
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Hobbs, NM 88240

Date: 3/8/99
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Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-10 (3-5) Sample Number: 118885

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	*ERL	<75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	75
Hexachlorobenzene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
Pentachlorobenzene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
1,2,4,5-tetrachlorobenzene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
Hexachloroethane	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
2,4-dichlorphenol	*ERL	<37.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	37.5
2,4,5-trichlorophenol	*ERL	<37.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	37.5
2,4,6-trichlorophenol	*ERL	<37.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	37.5
bis (2-chloroethly) ether	*ERL	<37.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	37.5
bis (2-chloroisopropyl) ether	*ERL	<37.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	37.5
bis (chloromethyl) ether	*ERL	<37.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	37.5
3,3-dichlorobenzidine	*ERL	<37.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	37.5
2,4-dinitrotoluene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
Diphenylhydrazine	*ERL	<37.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	37.5
Hexachlorobutadiene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
Hexachlorocyclopentadiene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
Isophorone	*ERL	<37.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	37.5
Nitrobenzene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
2,4-dinitro-o-cresol	*ERL	<37.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	37.5
2,4-dinitrophenols	*ERL	<37.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	37.5
n-nitrosodiethylamine	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
N-nitrosodimethylamine	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
N-nitrosodibutylamine	*ERL	<37.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	37.5
N-nitrosodiphenylamine	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
N-nitrosopyrrolidine	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
Pentachlorophenol	*ERL	<37.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	37.5
Dibutyl phthalate	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
di-2-ethylhexyl phthalate	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
Diethyl phthalate	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
Dimethyl phthalate	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
Anthracene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
3,4-Benzofluoranthene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
Benzo(k)fluoranthene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
Fluoranthene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
Fluorene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5

*ERL-elevated reporting due to hydrocarbons present.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

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Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-10 (3-5) Sample Number: 118885

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
Pyrene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
Naphthalene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
1-methylnaphthalene		13	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
2-methylnaphthalene		14	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
Benzo-a-pyrene	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
Phenol	*ERL	<7.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	7.5
Surr. 2-Fluorophenol		69	%	8270C	2/13/99	2/16/99	SO	5553	5686	25-121
Surr. Phenol-d6		79	%	8270C	2/13/99	2/16/99	SO	5553	5686	24-113
Surr. Nitrobenzene-d5		105	%	8270C	2/13/99	2/16/99	SO	5553	5686	27-120
Surr. 2-Fluorobiphenyl		87	%	8270C	2/13/99	2/16/99	SO	5553	5686	30-115
Surr. 2,4,6-Tribromophenol		52	%	8270C	2/13/99	2/16/99	SO	5553	5686	19-122
Surr. Terphenyl-d14		87	%	8270C	2/13/99	2/16/99	SO	5553	5686	28-137

*ERL-elevated reporting due to hydrocarbons present.

Analytical Results Report

Cliff P. Brunson.
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1324 W. Marland
Hobbs, NM 88240

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Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-10 (8-10) Sample Number: 118886

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	*ERL	<37.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	37.5
Hexachlorobenzene	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
Pentachlorobenzene	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
1,2,4,5-tetrachlorobenzene	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
Hexachloroethane	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
2,4-dichlorphenol	*ERL	<18.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	18.75
2,4,5-trichlorophenol	*ERL	<18.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	18.75
2,4,6-trichlorophenol	*ERL	<18.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	18.75
bis (2-chloroethly) ether	*ERL	<18.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	18.75
bis (2-chloroisopropyl) ether	*ERL	<18.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	18.75
bis (chloromethyl) ether	*ERL	<18.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	18.75
3,3-dichlorobenzidine	*ERL	<18.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	18.75
2,4-dinitrotoluene	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
Diphenylhydrazine	*ERL	<18.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	18.75
Hexachlorobutadiene	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
Hexachlorocyclopentadiene	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
Isophorone	*ERL	<18.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	18.75
Nitrobenzene	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
2,4-dinitro-o-cresol	*ERL	<18.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	18.75
2,4-dinitrophenols	*ERL	<18.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	18.75
n-nitrosodiethylamine	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
N-nitrosodimethylamine	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
N-nitrosodibutylamine	*ERL	<18.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	18.75
N-nitrosodiphenylamine	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
N-nitrosopyrrolidine	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
Pentachlorophenol	*ERL	<18.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	18.75
Dibutyl phthalate	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
di-2-ethylhexyl phthalate	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
Diethyl phthalate	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
Dimethyl phthalate	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
Anthracene	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
3,4-Benzofluoranthene	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
Benzo(k)fluoranthene	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
Fluoranthene	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
Fluorene	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75

*ERL-elevated reporting due to hydrocarbons present.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
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Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-10 (8-10) Sample Number: 118886

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
Pyrene	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
Naphthalene	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
1-methylnaphthalene		8.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
2-methylnaphthalene		8.7	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
Benzo-a-pyrene	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
Phenol	*ERL	<3.75	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	3.75
Surr. 2-Fluorophenol		61	%	8270C	2/13/99	2/16/99	SO	5553	5686	25-121
Surr. Phenol-d6		68	%	8270C	2/13/99	2/16/99	SO	5553	5686	24-113
Surr. Nitrobenzene-d5		91	%	8270C	2/13/99	2/16/99	SO	5553	5686	23-120
Surr. 2-Fluorobiphenyl		82	%	8270C	2/13/99	2/16/99	SO	5553	5686	30-115
Surr. 2,4,6-Tribromophenol		54	%	8270C	2/13/99	2/16/99	SO	5553	5686	19-122
Surr. Terphenyl-d14		75	%	8270C	2/13/99	2/16/99	SO	5553	5686	28-137

*ERL-elevated Reporting limits due to hydrocarbons present.

Analytical Results Report

Cliff P. Brunson.
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1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
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Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-10 (28-30) Sample Number: 118887

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Hexachloroethane		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
bis (2-chloroethly) ether		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Isophorone		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
Nitrobenzene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Anthracene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Fluoranthene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Fluorene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25

Analytical Results Report

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1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
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Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-10 (28-30) Sample Number: 118887

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Pyrene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Naphthalene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Phenol		<0.25	mg/kg	8270C	2/13/99	2/16/99	SO	5553	5686	0.25
Surr. 2-Fluorophenol		54	%	8270C	2/13/99	2/16/99	SO	5553	5686	25-121
Surr. Phenol-d6		59	%	8270C	2/13/99	2/16/99	SO	5553	5686	24-113
Surr. Nitrobenzene-d5		55	%	8270C	2/13/99	2/16/99	SO	5553	5686	23-120
Surr. 2-Fluorobiphenyl		56	%	8270C	2/13/99	2/16/99	SO	5553	5686	30-115
Surr. 2,4,6-Tribromophenol		48	%	8270C	2/13/99	2/16/99	SO	5553	5686	19-122
Surr. Terphenyl-d14		76	%	8270C	2/13/99	2/16/99	SO	5553	5686	28-137

Quality Control Report
Blanks

Cliff P. Brunson.
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1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
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Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	FLAG	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	S-8260B	02/13/99		5685
Acrylonitrile		<5	ug/L	S-8260B	02/13/99		5685
Benzene		<1	ug/L	S-8260B	02/13/99		5685
Carbon tetrachloride		<1	ug/L	S-8260B	02/13/99		5685
Chlorobenzene		<1	ug/L	S-8260B	02/13/99		5685
1,2-dichloroethane		<1	ug/L	S-8260B	02/13/99		5685
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B	02/13/99		5685
1,1,1-trichloroethane		<1	ug/L	S-8260B	02/13/99		5685
1,1,2-trichloroethane		<1	ug/L	S-8260B	02/13/99		5685
1,1,2-trichloroethylene		<1	ug/L	S-8260B	02/13/99		5685
[redacted]oform		<1	ug/L	S-8260B	02/13/99		5685
[redacted]orobenzene		<2	ug/L	S-8260B	02/13/99		5685
1,1-dichloroethylene		<1	ug/L	S-8260B	02/13/99		5685
Dichloropropenes		<1	ug/L	S-8260B	02/13/99		5685
Ethylbenzene		<1	ug/L	S-8260B	02/13/99		5685
Bromodichloromethane		<1	ug/L	S-8260B	02/13/99		5685
Bromomethane		<5	ug/L	S-8260B	02/13/99		5685
Chloromethane		<1	ug/L	S-8260B	02/13/99		5685
Dichlorodifluoromethane		<1	ug/L	S-8260B	02/13/99		5685
Dichloromethane		<5	ug/L	S-8260B	02/13/99		5685
Trichlorofluoromethane		<1	ug/L	S-8260B	02/13/99		5685
Tetrachloroethylene		<1	ug/L	S-8260B	02/13/99		5685
Toluene		<1	ug/L	S-8260B	02/13/99		5685
Trichloroethylene		<1	ug/L	S-8260B	02/13/99		5685
Vinyl chloride		<2	ug/L	S-8260B	02/13/99		5685
m,p-xylene		<1	ug/L	S-8260B	02/13/99		5685
o-xylene		<1	ug/L	S-8260B	02/13/99		5685
1,1-dichloroethane		<1	ug/L	S-8260B	02/13/99		5685
Ethylene dibromide		<1	ug/L	S-8260B	02/13/99		5685
cis-1,2-dichlorethylene		<1	ug/L	S-8260B	02/13/99		5685
trans-1,2-dichloroethylene		<1	ug/L	S-8260B	02/13/99		5685
Methylene chloride		<5	ug/L	S-8260B	02/13/99		5685
Surr. Dibromofluoromethane		109	%	S-8260B	02/13/99		5685
Surr. Toluene-d8		104	%	S-8260B	02/13/99		5685
Surr. 4-Bromofluorobenzene		107	%	S-8260B	02/13/99		5685

Order ID Number: 9902000230/231 Page: #30

[redacted]ameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Benzidine		<2.5	mg/kg	8270C	2/16/99	5553	5686
Hexachlorobenzene		<0.25	mg/kg	8270C	2/16/99	5553	5686
Pentachlorobenzene		<0.25	mg/kg	8270C	2/16/99	5553	5686
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	2/16/99	5553	5686
Hexachloroethane		<0.25	mg/kg	8270C	2/16/99	5553	5686
2,4-dichlorphenol		<1.25	mg/kg	8270C	2/16/99	5553	5686
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	2/16/99	5553	5686
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	2/16/99	5553	5686
bis (2-chloroethly) ether		<1.25	mg/kg	8270C	2/16/99	5553	5686
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	2/16/99	5553	5686
bis (chloromethyl) ether		<1.25	mg/kg	8270C	2/16/99	5553	5686
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	2/16/99	5553	5686
2,4-dinitrotoluene		<0.25	mg/kg	8270C	2/16/99	5553	5686
Diphenylhydrazine		<1.25	mg/kg	8270C	2/16/99	5553	5686
Hexachlorobutadiene		<0.25	mg/kg	8270C	2/16/99	5553	5686
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	2/16/99	5553	5686
Isophorone		<1.25	mg/kg	8270C	2/16/99	5553	5686
Nitrobenzene		<0.25	mg/kg	8270C	2/16/99	5553	5686
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	2/16/99	5553	5686
2,4-dinitrophenols		<1.25	mg/kg	8270C	2/16/99	5553	5686
n-nitrosodiethylamine		<0.25	mg/kg	8270C	2/16/99	5553	5686
N-nitrosodimethylamine		<0.25	mg/kg	8270C	2/16/99	5553	5686
N-nitrosodibutylamine		<1.25	mg/kg	8270C	2/16/99	5553	5686
[redacted]itrosodiphenylamine		<0.25	mg/kg	8270C	2/16/99	5553	5686
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	2/16/99	5553	5686
Pentachlorophenol		<1.25	mg/kg	8270C	2/16/99	5553	5686
Dibutyl phthalate		<0.25	mg/kg	8270C	2/16/99	5553	5686
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	2/16/99	5553	5686
Diethyl phthalate		<0.25	mg/kg	8270C	2/16/99	5553	5686
Dimethyl phthalate		<0.25	mg/kg	8270C	2/16/99	5553	5686
Anthracene		<0.25	mg/kg	8270C	2/16/99	5553	5686
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	2/16/99	5553	5686
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	2/16/99	5553	5686
Fluoranthene		<0.25	mg/kg	8270C	2/16/99	5553	5686
Fluorene		<0.25	mg/kg	8270C	2/16/99	5553	5686
Phenanthrene		<0.25	mg/kg	8270C	2/16/99	5553	5686
Pyrene		<0.25	mg/kg	8270C	2/16/99	5553	5686
Naphthalene		<0.25	mg/kg	8270C	2/16/99	5553	5686
1-methylnaphthalene		<0.25	mg/kg	8270C	2/16/99	5553	5686
2-methylnaphthalene		<0.25	mg/kg	8270C	2/16/99	5553	5686
Benzo-a-pyrene		<0.25	mg/kg	8270C	2/16/99	5553	5686
Phenol		<0.25	mg/kg	8270C	2/16/99	5553	5686
Surr. 2-Fluorophenol		54	%	8270C	2/16/99	5553	5686
Surr. Phenol-d6		62	%	8270C	2/16/99	5553	5686
Surr. Nitrobenzene-d5		53	%	8270C	2/16/99	5553	5686
Surr. 2-Fluorobiphenyl		59	%	8270C	2/16/99	5553	5686
Surr. 2,4,6-Tribromophenol		53	%	8270C	2/16/99	5553	5686
[redacted]. Terphenyl-d14		67	%	8270C	2/16/99	5553	5686

Order ID Number: 9902000230/231 Page: #31

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Benzidine		<2.5	mg/kg	8270C	2/17/99	5553	5687
Hexachlorobenzene		<0.25	mg/kg	8270C	2/17/99	5553	5687
Pentachlorobenzene		<0.25	mg/kg	8270C	2/17/99	5553	5687
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	2/17/99	5553	5687
Hexachloroethane		<0.25	mg/kg	8270C	2/17/99	5553	5687
2,4-dichlorphenol		<1.25	mg/kg	8270C	2/17/99	5553	5687
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	2/17/99	5553	5687
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	2/17/99	5553	5687
bis (2-chloroethly) ether		<1.25	mg/kg	8270C	2/17/99	5553	5687
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	2/17/99	5553	5687
bis (chloromethyl) ether		<1.25	mg/kg	8270C	2/17/99	5553	5687
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	2/17/99	5553	5687
2,4-dinitrotoluene		<0.25	mg/kg	8270C	2/17/99	5553	5687
Diphenylhydrazine		<1.25	mg/kg	8270C	2/17/99	5553	5687
Hexachlorobutadiene		<0.25	mg/kg	8270C	2/17/99	5553	5687
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	2/17/99	5553	5687
Isophorone		<1.25	mg/kg	8270C	2/17/99	5553	5687
Nitrobenzene		<0.25	mg/kg	8270C	2/17/99	5553	5687
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	2/17/99	5553	5687
2,4-dinitrophenols		<1.25	mg/kg	8270C	2/17/99	5553	5687
n-nitrosodiethylamine		<0.25	mg/kg	8270C	2/17/99	5553	5687
N-nitrosodimethylamine		<0.25	mg/kg	8270C	2/17/99	5553	5687
N-nitrosodibutylamine		<1.25	mg/kg	8270C	2/17/99	5553	5687
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	2/17/99	5553	5687
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	2/17/99	5553	5687
Pentachlorophenol		<1.25	mg/kg	8270C	2/17/99	5553	5687
Dibutyl phthalate		<0.25	mg/kg	8270C	2/17/99	5553	5687
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	2/17/99	5553	5687
Diethyl phthalate		<0.25	mg/kg	8270C	2/17/99	5553	5687
Dimethyl phthalate		<0.25	mg/kg	8270C	2/17/99	5553	5687
Anthracene		<0.25	mg/kg	8270C	2/17/99	5553	5687
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	2/17/99	5553	5687
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	2/17/99	5553	5687
Fluoranthene		<0.25	mg/kg	8270C	2/17/99	5553	5687
Fluorene		<0.25	mg/kg	8270C	2/17/99	5553	5687
Phenanthrene		<0.25	mg/kg	8270C	2/17/99	5553	5687
Pyrene		<0.25	mg/kg	8270C	2/17/99	5553	5687
Naphthalene		<0.25	mg/kg	8270C	2/17/99	5553	5687
1-methylnaphthalene		<0.25	mg/kg	8270C	2/17/99	5553	5687
2-methylnaphthalene		<0.25	mg/kg	8270C	2/17/99	5553	5687
Benzo-a-pyrene		<0.25	mg/kg	8270C	2/17/99	5553	5687
Phenol		<0.25	mg/kg	8270C	2/17/99	5553	5687
Surr. 2-Fluorophenol		58	%	8270C	2/17/99	5553	5687
Surr. Phenol-d6		65	%	8270C	2/17/99	5553	5687
Surr. Nitrobenzene-d5		57	%	8270C	2/17/99	5553	5687
Surr. 2-Fluorobiphenyl		63	%	8270C	2/17/99	5553	5687
Surr. 2,4,6-Tribromophenol		61	%	8270C	2/17/99	5553	5687
Surr. Terphenyl-d14		62	%	8270C	2/17/99	5553	5687

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99

Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	98	98	02/13/99	5685
1,1-Dichloroethene		100	ug/L	117	117	02/13/99	5685
Chloroform		100	ug/L	120	120	02/13/99	5685
1,2-Dichloropropane		100	ug/L	103	103	02/13/99	5685
Toluene		100	ug/L	107	107	02/13/99	5685
Chlorobenzene		100	ug/L	100	100	02/13/99	5685
Ethylbenzene		100	ug/L	108	108	02/13/99	5685
Surr. Dibromofluoromethane		100	%	108	108	02/13/99	5685
Surr. Toluene-d8		100	%	103	103	02/13/99	5685
Surr. 4-Bromofluorobenzene		100	%	111	111	02/13/99	5685
Phenol		80	mg/L	80	100	02/16/99	5686
1,4-Dichlorobenzene		80	mg/L	75	94	02/16/99	5686
2-nitrophenol		80	mg/L	84	105	02/16/99	5686
2,4-Dichlorophenol		80	mg/L	79	99	02/16/99	5686
Hexachlorobutadiene		80	mg/L	78	98	02/16/99	5686
4-Chloro-3-methylphenol		80	mg/L	78	98	02/16/99	5686
2,4,6-Trichlorophenol		80	mg/L	83	104	02/16/99	5686
Acenaphthene		80	mg/L	78	98	02/16/99	5686
n-Nitrosodiphenylamine		80	mg/L	75	94	02/16/99	5686
Pentachlorophenol		80	mg/L	82	103	02/16/99	5686
Fluoranthene		80	mg/L	81	101	02/16/99	5686
Di-n-octylphthalate		80	mg/L	72	90	02/16/99	5686
Benzo(a)pyrene		80	mg/L	79	99	02/16/99	5686
Surr. 2-Fluorophenol		80	%	94	118	02/16/99	5686
Surr. Phenol-d6		80	%	93	116	02/16/99	5686
Surr. Nitroobenzene-d5		80	%	89	111	02/16/99	5686
Surr. 2-Fluorobiphenyl		80	%	87	109	02/16/99	5686
Surr. 2,4,6-Tribromophenol		80	%	93	116	02/16/99	5686
Surr. Terphenyl-d14		80	%	82	103	02/16/99	5686

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
Page: #33

Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
2-nitrophenol		80	mg/L	82	103	02/17/99	5687
2,4-Dichlorophenol		80	mg/L	76	95	02/17/99	5687
Hexachlorobutadiene		80	mg/L	82	103	02/17/99	5687
4-Chloro-3-methylphenol		80	mg/L	78	98	02/17/99	5687
2,4,6-Trichlorophenol		80	mg/L	81	101	02/17/99	5687
Acenaphthene		80	mg/L	80	100	02/17/99	5687
n-Nitrosodiphenylamine		80	mg/L	81	101	02/17/99	5687
Pentachlorophenol		80	mg/L	72	90	02/17/99	5687
Fluoranthene		80	mg/L	82	103	02/17/99	5687
Di-n-octylphthalate		80	mg/L	65	81	02/17/99	5687
Benzo(a)pyrene		80	mg/L	79	99	02/17/99	5687
Surr. 2-Fluorophenol		80	%	81	101	02/17/99	5687
Surr. Phenol-d6		80	%	81	101	02/17/99	5687
Surr. Nitroobenzene-d5		80	%	94	118	02/17/99	5687
Surr. 2-Fluorobiphenyl		80	%	90	113	02/17/99	5687
Surr. 2,4,6-Tribromophenol		80	%	94	118	02/17/99	5687
Surr. Terphenyl-d14		80	%	72	90	02/17/99	5687

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99

Order ID Number: 9902000230/231
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	113	113	100	121	121	7	02/13/99		5685
Benzene		ug/L	<1	100	112	112	100	116	116	4	02/13/99		5685
Trichloroethene		ug/L	<1	100	98	98	100	102	102	4	02/13/99		5685
Toluene		ug/L	<1	100	109	109	100	112	112	3	02/13/99		5685
Chlorobenzene		ug/L	<1	100	105	105	100	111	111	6	02/13/99		5685
Surr. Dibromofluoromethane		%	111	100	110	110	100	111	111	1	02/13/99		5685
Surr. Toluene-d8		%	104	100	104	104	100	105	105	1	02/13/99		5685
Surr. 4-Bromofluorobenzene		%	107	100	107	107	100	107	107	0	02/13/99		5685
Phenol		mg/kg	<0.25	100	59	59	100	59	59	0	02/17/99	5553	5687
2-Chlorophenol		mg/kg	<1.25	100	56	56	100	55	55	2	02/17/99	5553	5687
1,4-Dichlorobenzene		mg/kg	<0.25	100	55	55	100	54	54	2	02/17/99	5553	5687
N-Nitrosodi-n-propylamine		mg/kg	<0.25	100	51	51	100	50	50	2	02/17/99	5553	5687
1,2,4-trichlorobenzene		mg/kg	<0.25	100	48	48	100	48	48	0	02/17/99	5553	5687
4-Chloro-3-methylphenol		mg/kg	<1.25	100	67	67	100	65	65	3	02/17/99	5553	5687
Acenaphthene		mg/kg	<0.25	100	62	62	100	60	60	3	02/17/99	5553	5687
4-Nitrophenol		mg/kg	<1.25	100	57	57	100	59	59	3	02/17/99	5553	5687
2,4-Dinitrotoluene		mg/kg	<0.25	100	71	71	100	72	72	1	02/17/99	5553	5687
Pentachlorophenol		mg/kg	<1.25	100	33	33	100	37	37	11	02/17/99	5553	5687
Pyrene		mg/kg	<0.25	100	75	75	100	80	80	6	02/17/99	5553	5687
Surr. 2-Fluorophenol		%	77	100	48	48	100	49	49	2	02/17/99	5553	5687
Surr. Phenol-d6		%	68	100	56	56	100	57	57	2	02/17/99	5553	5687
Surr. Nitrobenzene-d5		%	68	100	52	52	100	53	53	2	02/17/99	5553	5687
Surr. 2-Fluorobiphenyl		%	81	100	55	55	100	57	57	4	02/17/99	5553	5687
Surr. 2,4,6-Tribromophenol		%	81	100	68	68	100	72	72	6	02/17/99	5553	5687
Surr. Terphenyl-d14		%	117	100	80	80	100	85	85	6	02/17/99	5553	5687

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-
Attn: Nell Green

Report Date: *24-Feb-99*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Our Lab#: MEL99-01956 **Your Sample ID:** 118872
Date Logged In: 2/16/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:** Shell Westgate
Project #: **Date Submitted to Lab:** 2/16/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/11/99

EPA Method	Analyst	Prep Date	Analysis Date
60.3	DJF		2/19/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	97.8 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	2/17/99	2/18/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 mg/kg	0.02
57-74-9	Chlordane(Total)	< 0.10 mg/kg	0.1
50-29-3	4,4'-DDT	< 0.03 mg/kg	0.03
60-57-1	Dieldrin	< 0.02 mg/kg	0.02
959-98-8	Endosulfan I	< 0.03 mg/kg	0.03
72-20-8	Endrin	< 0.05 mg/kg	0.05
76-44-8	Heptachlor	< 0.03 mg/kg	0.03

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PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

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Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-01956	8081	Decachlorobiphenyl (Surr)	85 %R	41	129
MEL99-01956	8081	Tetrachloro-m-xylene (Surr)	66 %R	27	119

End of Report

Report Approved By: Wade E. Bayer

Wade E. Bayer

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Your Sample ID: 118872

Lab Number MEL99-01956

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565 **Report Date:** *24-Feb-99*

Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Attn: Nell Green

Our Lab#: MEL99-01957 **Your Sample ID:** 118873
Date Logged In: 2/16/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:** Shell Westgate
Project #: **Date Submitted to Lab:** 2/16/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/11/99

EPA Method	Analyst	Prep Date	Analysis Date
160.3	DJF		2/19/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	93.2 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	2/17/99	2/18/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 mg/kg	0.02
57-74-9	Chlordane(Total)	< 0.10 mg/kg	0.1
50-29-3	4,4'-DDT	< 0.03 mg/kg	0.03
60-57-1	Dieldrin	< 0.02 mg/kg	0.02
959-98-8	Endosulfan I	< 0.03 mg/kg	0.03
72-20-8	Endrin	< 0.05 mg/kg	0.05
76-44-8	Heptachlor	< 0.03 mg/kg	0.03

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Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-01957	8081	Decachlorobiphenyl (Surr)	88 %R	41	129
MEL99-01957	8081	Tetrachloro-m-xylene (Surr)	73 %R	27	119

End of Report

Report Approved By: Wade E. Bayer

Wade E. Bayer

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Your Sample ID: 118873

Lab Number MEL99-01957

6878 S. STATE ROUTE 100 • P.O. BOX 76 • MELMORE, OH 44845-9999
PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-
Attn: Nell Green

Report Date: *24-Feb-99*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Our Lab#: MEL99-01958 **Your Sample ID:** 118874
Date Logged In: 2/16/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:** Shell Westgate
Project #: **Date Submitted to Lab:** 2/16/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/11/99

EPA Method	Analyst	Prep Date	Analysis Date
60.3	DJF		2/19/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	95.5 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	2/17/99	2/18/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 mg/kg	0.02
57-74-9	Chlordane(Total)	< 0.10 mg/kg	0.1
50-29-3	4,4'-DDT	< 0.03 mg/kg	0.03
60-57-1	Dieldrin	< 0.02 mg/kg	0.02
959-98-8	Endosulfan I	< 0.03 mg/kg	0.03
72-20-8	Endrin	< 0.05 mg/kg	0.05
76-44-8	Heptachlor	< 0.03 mg/kg	0.03

6878 S. STATE ROUTE 100 • P.O. BOX 76 • MELMORE, OH 44845-9999
PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-01958	8081	Decachlorobiphenyl (Surr)	85 %R	41	129
MEL99-01958	8081	Tetrachloro-m-xylene (Surr)	68 %R	27	119

End of Report

Report Approved By: Wade E. Bayer

Wade E. Bayer

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Your Sample ID: 118874

Lab Number MEL99-01958

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118872-87

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 230 / ~~230~~ 231

Company Name: BBC International, Inc.
Phone #: (505) 397-6388
Address: (Street, City, Zip) 1324 W. Marland, Hobbs, NM 88240
Fax #: (505) 397-0397
Contact Person: Cliff P. Brunson
Invoice to: (If different from above) Shell E & P Technology Co. ATTN: Wayne Hamilton
Project #:
Project Name: Shell Westgate
Project Location: Hobbs, New Mexico
Sampler Signature: Daniel A. Williams

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
118872	TSB-3 (2-3)	1	4oz		X					X			2/11/99	8:42 am
73	TSB-3 (3-5)	2	4oz		X					X			2/11/99	8:50 am
74	TSB-3 (18-20)	2	4oz		X					X			2/11/99	9:14 am
75	TSB-6 (2-3)	2	4oz		X					X			2/11/99	10:59 am
76	TSB-6 (3-5)	2	4oz		X					X			2/11/99	11:03 am
77	TSB-6 (18-20)	2	4oz		X					X			2/11/99	11:26 am
	##													
118878	Trip Blank	2	VOA										2/11/99	
79	Field Blank	2	VOA's	X				X					2/11/99	

ANALYSIS REQUEST

(Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides ~~8081A/608~~	BOD, TSS, pH	See Attached (Full Suite)	Total Chlorides (300-1)	Total Metals (6010)	Turn Around Time if different from standard	Hold
													X						
													X						
													X						
											X								
											X								
											X								
										✓										
										✓										

Relinquished by: Daniel A. Williams Date: 2/11/99 Time: 5:30 pm
Received by: Date: Time:

Relinquished by: Date: Time:
Received by: Date: Time:

Relinquished by: Date: 2/12/99 Time: 3:00 pm
Received at Laboratory by: Date: 2-12-99 Time: 3:00 pm

LAB USE ONLY

Intact (Y / N)
Headspace Y / N
Temp 4 °
Log-in Review

REMARKS: All Samples Conformation Agreed Upon Turnaround

Carrier # Airgun

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

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6701 Aberdeen Avenue, Ste. 9
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TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # ~~232~~ 230/231

Company Name: BBC International, Inc.
Phone #: (505) 397-6388
Address: (Street, City, Zip) 1324 W. Marland, Hobbs, NM 88240
Fax #: (505) 397-0397
Contact Person: Cliff P. Brunson
Invoice to: (If different from above) Shell E & P Technology Co. ATTN: Wayne Hamilton
Project #:
Project Name: Shell Westgate
Project Location: Hobbs, New Mexico
Sampler Signature: Daniel A. Williams

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
118880	TSB-7 (2-3)	2	4oz		X					X			2/11/99	12:59 pm
81	TSB-7 (3-5)	2	4oz		X					X			2/11/99	1:06 pm
82	TSB-7 (8-10)	2	4oz		X					X			2/11/99	1:14 pm
83	TSB-7 (28-30)	2	4oz		X					X			2/11/99	1:58 pm
84	TSB-10 (2-3)	2	4oz		X					X			2/11/99	2:58 pm
85	TSB-10 (3-5)	2	4oz		X					X			2/11/99	3:03 pm
86	TSB-10 (8-10)	2	4oz		X					X			2/11/99	3:14 pm
87	TSB-10 (28-30)	2	4oz		X					X			2/11/99	3:52 pm

ANALYSIS REQUEST
(Circle or Specify Method No.)

MTBE 8021B/602
BTEX 8021B/602
TPH 418.1/TX1005
PAH 8270C
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7
TCLP Metals Ag As Ba Cd Cr Pb Se Hg
TCLP Volatiles
TCLP Semi Volatiles
TCLP Pesticides
RCI
GC-MS Vol. 8260B/624
GC/MS Semi. Vol. 8270C/625
PCB's 8082/608
Pesticides 8081A/608
BOD, TSS, pH
See Attached (Full Suite)
Total Chlorides (300-1)
Total Metals (6010)
Turn Around Time if different from standard
Hold

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Daniel A. Williams	2/11/99	5:30 P.M.			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
	2/12/99	3:00P	Vicki Wyndham	2-12-99	3:00pm

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

LAB USE ONLY
Intact (Y) N
Headspace Y / N
Temp 4 °
Log-in Review

REMARKS: All Samples Conformation Agreed Upon turnaround

Carrier # Carrin

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/08/99
Page: # 1

Project Name: Shell Westgate
Project Location: Hobbs, NM
Order ID Number: 9902000254/255

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
118967	TSB-4 (2-3)	Soil	02/12/99	9:20 a.m.	02/15/99
118968	TSB-4 (3-5)	Soil	02/12/99	9:24 a.m.	02/15/99
[illegible]8969	TSB-4 (18-20)	Soil	02/12/99	9:45 a.m.	02/15/99
[illegible]8970	TSB-5 (2-3)	Soil	02/12/99	10:48 a.m	02/15/99
118971	TSB-5 (3-5)	Soil	02/12/99	10:53 a.m.	02/15/99
118972	TSB-5 (18-20)	Soil	02/12/99	11:11 a.m.	02/15/99
118973	TSB-12 (2-3)	Soil	02/12/99	12:55 p.m.	02/15/99
118974	TSB-12 (3-5)	Soil	02/12/99	1:02 p.m.	02/15/99
118975	TSB-12 (18-20)	Soil	02/12/99	1:22 p.m.	02/15/99
118976	TSB-11(2-3)	Soil	02/12/99	2:44 p.m.	02/15/99
118977	TSB-11 (3-5)	Soil	02/12/99	2:47 p.m.	02/15/99
118978	TSB-11 (18-20)	Soil	02/12/99	3:06 p.m.	02/15/99
118979	TSB-11 (29-31)	Soil	02/12/99	4:08 p.m.	02/15/99

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

This report shall not be reproduced except in its entirety, without written approval of the laboratory.
These results represent only the samples received in the laboratory.
This report consists of a total of 38 pages.

*ERL - Semi-volatiles 118976, 118977, 118978, elevated reporting limits due to hydrocarbons present.
*ERL - Pesticide 118973, 118974, 118975, elevated reporting limits due to hydrocarbons present.

Dr. Blair Leftwich
Director

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99

Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-4 (2-3) Sample Number: 118967

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Hexachloroethane		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
bis (2-chloroethly) ether		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Isophorone		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
Nitrobenzene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Anthracene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
3,4-benzofloranthene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Fluoranthene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Fluorene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99

Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-4 (2-3) Sample Number: 118967

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Pyrene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Naphthalene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Phenol		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Surr. 2-Fluorophenol		58	%	8270C	02/16/99	02/19/99	MA	5620	5764	25-121
Surr. Phenol-d6		65	%	8270C	02/16/99	02/19/99	MA	5620	5764	24-113
Surr. Nitrobenzene-d5		71	%	8270C	02/16/99	02/19/99	MA	5620	5764	23-120
Surr. 2-Fluorobiphenyl		64	%	8270C	02/16/99	02/19/99	MA	5620	5764	30-115
Surr. 2,4,6-Tribromophenol		59	%	8270C	02/16/99	02/19/99	MA	5620	5764	19-122
Surr. Terphenyl-d14		69	%	8270C	02/16/99	02/19/99	MA	5620	5764	28-137

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99

Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-4 (3-5) Sample Number: 118968

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Hexachloroethane		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
bis (2-chloroethly) ether		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Isophorone		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
Nitrobenzene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Anthracene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
3,4-benzofloranthene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Fluoranthene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Fluorene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
Page #5

Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-4 (3-5) Sample Number: 118968

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Pyrene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Naphthalene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Phenol		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Surr. 2-Fluorophenol		57	%	8270C	2/16/99	2/19/99	MA	5620	5764	25-121
Surr. Phenol-d6		62	%	8270C	2/16/99	2/19/99	MA	5620	5764	24-113
Surr. Nitrobenzene-d5		67	%	8270C	2/16/99	2/19/99	MA	5620	5764	23-120
Surr. 2-Fluorobiphenyl		64	%	8270C	2/16/99	2/19/99	MA	5620	5764	30-115
Surr. 2,4,6-Tribromophenol		62	%	8270C	2/16/99	2/19/99	MA	5620	5764	19-122
Surr. Terphenyl-d14		74	%	8270C	2/16/99	2/19/99	MA	5620	5764	28-137

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

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Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-4 (18-20) Sample Number: 118969

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
Hexachloroethane		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	1.25
bis (2-chloroethly) ether		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
Isophorone		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	1.25
Nitrobenzene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
Anthracene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
3,4-benzofloranthene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
Fluoranthene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
Fluorene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25

Analytical Results Report

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1324 W. Marland
Hobbs, NM 88240

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Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-4 (18-20) Sample Number: 118969

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
Pyrene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
Naphthalene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
Phenol		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	5621	5765	0.25
Surr. 2-Fluorophenol		78	%	8270C	2/22/99	2/24/99	DG	5621	5765	25-121
Surr. Phenol-d6		91	%	8270C	2/22/99	2/24/99	DG	5621	5765	24-113
Surr. Nitrobenzene-d5		83	%	8270C	2/22/99	2/24/99	DG	5621	5765	23-120
Surr. 2-Fluorobiphenyl		86	%	8270C	2/22/99	2/24/99	DG	5621	5765	30-115
Surr. 2,4,6-Tribromophenol		94	%	8270C	2/22/99	2/24/99	DG	5621	5765	19-122
Surr. Terphenyl-d14		111	%	8270C	2/22/99	2/24/99	DG	5621	5765	28-137

Analytical Results Report

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1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99

Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-5 (2-3) Sample Number: 118970

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Hexachloroethane		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
bis (2-chloroethly) ether		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Isophorone		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
Nitrobenzene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
di-2-ethylhexyl phthalate		0.38	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Anthracene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
3,4-benzofloranthene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Fluoranthene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Fluorene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25

Analytical Results Report

Cliff P. Brunson.
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1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99

Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-5 (2-3) Sample Number: 118970

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Pyrene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Naphthalene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Phenol		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5620	5764	0.25
Surr. 2-Fluorophenol		64	%	8270C	2/16/99	2/19/99	MA	5620	5764	25-121
Surr. Phenol-d6		70	%	8270C	2/16/99	2/19/99	MA	5620	5764	24-113
Surr. Nitrobenzene-d5		81	%	8270C	2/16/99	2/19/99	MA	5620	5764	23-120
Surr. 2-Fluorobiphenyl		77	%	8270C	2/16/99	2/19/99	MA	5620	5764	30-115
Surr. 2,4,6-Tribromophenol		71	%	8270C	2/16/99	2/19/99	MA	5620	5764	19-122
Surr. Terphenyl-d14		82	%	8270C	2/16/99	2/19/99	MA	5620	5764	28-137

Analytical Results Report

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1324 W. Marland
Hobbs, NM 88240

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Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-5 (3-5) Sample Number: 118971

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Hexachloroethane		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
bis (2-chloroethly) ether		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Isophorone		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
Nitrobenzene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Anthracene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
3,4-benzofloranthene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Fluoranthene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Fluorene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25

Analytical Results Report

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1324 W. Marland
Hobbs, NM 88240

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Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-5 (3-5) Sample Number: 118971

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Pyrene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Naphthalene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Phenol		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Surr. 2-Fluorophenol		66	%	8270C	02/16/99	02/19/99	MA	5620	5764	25-121
Surr. Phenol-d6		72	%	8270C	02/16/99	02/19/99	MA	5620	5764	24-113
Surr. Nitrobenzene-d5		81	%	8270C	02/16/99	02/19/99	MA	5620	5764	23-120
Surr. 2-Fluorobiphenyl		78	%	8270C	02/16/99	02/19/99	MA	5620	5764	30-115
Surr. 2,4,6-Tribromophenol		61	%	8270C	02/16/99	02/19/99	MA	5620	5764	19-122
Surr. Terphenyl-d14		78	%	8270C	02/16/99	02/19/99	MA	5620	5764	28-137

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Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

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Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-5 (18-20) Sample Number: 118972

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Hexachloroethane		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
bis (2-chloroethly) ether		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Isophorone		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
Nitrobenzene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Anthracene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
3,4-benzofloranthene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Fluoranthene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Fluorene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25

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Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-5 (18-20) Sample Number: 118972

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Pyrene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Naphthalene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Phenol		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Surr. 2-Fluorophenol		57	%	8270C	02/16/99	02/19/99	MA	5620	5764	25-121
Surr. Phenol-d6		64	%	8270C	02/16/99	02/19/99	MA	5620	5764	24-113
Surr. Nitrobenzene-d5		70	%	8270C	02/16/99	02/19/99	MA	5620	5764	23-120
Surr. 2-Fluorobiphenyl		61	%	8270C	02/16/99	02/19/99	MA	5620	5764	30-115
Surr. 2,4,6-Tribromophenol		61	%	8270C	02/16/99	02/19/99	MA	5620	5764	19-122
Surr. Terphenyl-d14		65	%	8270C	02/16/99	02/19/99	MA	5620	5764	28-137

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Hobbs, NM 88240

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Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-12 (2-3) Sample Number: 118973

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin	*ERL	<2.0	mg/kg	8081	2/17/99	2/18/99	SH			2.0
Chlordane	*ERL	<10	mg/kg	8081	2/17/99	2/18/99	SH			10
DDT	*ERL	<3.0	mg/kg	8081	2/17/99	2/18/99	SH			3.0
Dieldrin	*ERL	<2.0	mg/kg	8081	2/17/99	2/18/99	SH			2.0
Endosulfan	*ERL	<3.0	mg/kg	8081	2/17/99	2/18/99	SH			3.0
Endrin	*ERL	<5.0	mg/kg	8081	2/17/99	2/18/99	SH			5.0
Heptachlor	*ERL	<3.0	mg/kg	8081	2/17/99	2/18/99	SH			3.0

*ERL - elevated reporting limit due to hydrocarbons present.

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Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-12 (3-5) Sample Number: 118974

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin	*ERL	<2.0	mg/kg	8081	2/17/99	2/18/99	SH			2.0
Chlordane	*ERL	<10	mg/kg	8081	2/17/99	2/18/99	SH			10
DDT	*ERL	<3.0	mg/kg	8081	2/17/99	2/18/99	SH			3.0
Dieldrin	*ERL	<2.0	mg/kg	8081	2/17/99	2/18/99	SH			2.0
Endosulfan	*ERL	<3.0	mg/kg	8081	2/17/99	2/18/99	SH			3.0
Endrin	*ERL	<5.0	mg/kg	8081	2/17/99	2/18/99	SH			5.0
Heptachlor	*ERL	<3.0	mg/kg	8081	2/17/99	2/18/99	SH			3.0

*ERL - elevated reporting limit due to hydrocarbons present.

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Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-12 (18-20) Sample Number: 118975

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin	*ERL	<2.0	mg/kg	8081	2/17/99	2/18/99	SH			2.0
Chlordane	*ERL	<10	mg/kg	8081	2/17/99	2/18/99	SH			10
DDT	*ERL	<3.0	mg/kg	8081	2/17/99	2/18/99	SH			3.0
Dieldrin	*ERL	<2.0	mg/kg	8081	2/17/99	2/18/99	SH			2.0
Endosulfan	*ERL	<3.0	mg/kg	8081	2/17/99	2/18/99	SH			3.0
Endrin	*ERL	<5.0	mg/kg	8081	2/17/99	2/18/99	SH			5.0
Heptachlor	*ERL	<3.0	mg/kg	8081	2/17/99	2/18/99	SH			3.0

*ERL - elevated reporting limit due to hydrocarbons present.

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1324 W. Marland
Hobbs, NM 88240

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Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-11(2-3) Sample Number: 118976

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	*ERL	<12.5	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	12.5
Hexachlorobenzene	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
Pentachlorobenzene	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
1,2,4,5-tetrachlorobenzene	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
Hexachloroethane	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
2,4-dichlorphenol	*ERL	<6.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	6.25
2,4,5-trichlorophenol	*ERL	<6.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	6.25
2,4,6-trichlorophenol	*ERL	<6.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	6.25
bis (2-chloroethly) ether	*ERL	<6.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	6.25
bis (2-chloroisopropyl) ether	*ERL	<6.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	6.25
bis (chloromethyl) ether	*ERL	<6.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	6.25
3,3-dichlorobenzidine	*ERL	<6.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	6.25
2,4-dinitrotoluene	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
Diphenylhydrazine	*ERL	<6.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	6.25
Hexachlorobutadiene	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
Hexachlorocyclopentadiene	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
Isophorone	*ERL	<6.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	6.25
Nitrobenzene	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
2,4-dinitro-o-cresol	*ERL	<6.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	6.25
2,4-dinitrophenols	*ERL	<6.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	6.25
n-nitrosodiethylamine	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
N-nitrosodimethylamine	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
N-nitrosodibutylamine	*ERL	<6.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	6.25
N-nitrosodiphenylamine	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
N-nitrosopyrrolidine	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
Pentachlorophenol	*ERL	<6.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	6.25
Dibutyl phthalate	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
di-2-ethylhexyl phthalate	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
Diethyl phthalate	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
Dimethyl phthalate	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
Anthracene	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
3,4-benzofloranthene	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
Benzo(k)fluoranthene	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
Fluoranthene	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
Fluorene	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25

*ERL - elevated reporting limit due to hydrocarbons present.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99

Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-11(2-3) Sample Number: 118976

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
Pyrene	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
Naphthalene	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
1-methylnaphthalene	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
2-methylnaphthalene	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
Benzo-a-pyrene	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
Phenol	*ERL	<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
Surr. 2-Fluorophenol		78	%	8270C	02/16/99	02/21/99	MA	5619	5763	23-121
Surr. Phenol-d6		81	%	8270C	02/16/99	02/21/99	MA	5619	5763	24-113
Surr. Nitrobenzene-d5		97	%	8270C	02/16/99	02/21/99	MA	5619	5763	23-120
Surr. 2-Fluorobiphenyl		98	%	8270C	02/16/99	02/21/99	MA	5619	5763	30-115
Surr. 2,4,6-Tribromophenol		69	%	8270C	02/16/99	02/21/99	MA	5619	5763	19-122
Surr. Terphenyl-d14		88	%	8270C	02/16/99	02/21/99	MA	5619	5763	28-137

*ERL - elevated reporting limit due to hydrocarbons present.

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Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-11 (3-5) Sample Number: 118977

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	*ERL	<12.5	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	12.5
Hexachlorobenzene	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
Pentachlorobenzene	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
1,2,4,5-tetrachlorobenzene	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
Hexachloroethane	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
2,4-dichlorphenol	*ERL	<6.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	6.25
2,4,5-trichlorophenol	*ERL	<6.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	6.25
2,4,6-trichlorophenol	*ERL	<6.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	6.25
bis (2-chloroethly) ether	*ERL	<6.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	6.25
bis (2-chloroisopropyl) ether	*ERL	<6.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	6.25
bis (chloromethyl) ether	*ERL	<6.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	6.25
3,3-dichlorobenzidine	*ERL	<6.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	6.25
2,4-dinitrotoluene	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
Diphenylhydrazine	*ERL	<6.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	6.25
Hexachlorobutadiene	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
Hexachlorocyclopentadiene	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
Isophorone	*ERL	<6.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	6.25
Nitrobenzene	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
2,4-dinitro-o-cresol	*ERL	<6.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	6.25
2,4-dinitrophenols	*ERL	<6.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	6.25
n-nitrosodiethylamine	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
N-nitrosodimethylamine	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
N-nitrosodibutylamine	*ERL	<6.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	6.25
N-nitrosodiphenylamine	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
N-nitrosopyrrolidine	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
Pentachlorophenol	*ERL	<6.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	6.25
Dibutyl phthalate	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
di-2-ethylhexyl phthalate	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
Diethyl phthalate	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
Dimethyl phthalate	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
Anthracene	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
3,4-benzofloranthene	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
Benzo(k)fluoranthene	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
Fluoranthene	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
Fluorene	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25

*ERL - elevated reporting limit due to hydrocarbons present.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
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Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-11 (3-5) Sample Number: 118977

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
Pyrene	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
Naphthalene	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
1-methylnaphthalene	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
2-methylnaphthalene	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
Benzo-a-pyrene	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
Phenol	*ERL	<1.25	mg/kg	8270C	02/22/99	02/24/99	DG	5621	5765	1.25
Surr. 2-Fluorophenol		52	%	8270C	02/22/99	02/24/99	DG	5621	5765	25-121
Surr. Phenol-d6		66	%	8270C	02/22/99	02/24/99	DG	5621	5765	24-113
Surr. Nitrobenzene-d5		61	%	8270C	02/22/99	02/24/99	DG	5621	5765	23-120
Surr. 2-Fluorobiphenyl		66	%	8270C	02/22/99	02/24/99	DG	5621	5765	30-115
Surr. 2,4,6-Tribromophenol		56	%	8270C	02/22/99	02/24/99	DG	5621	5765	19-122
Surr. Terphenyl-d14		86	%	8270C	02/22/99	02/24/99	DG	5621	5765	28-137

*ERL - elevated reporting limit due to hydrocarbons present.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
Page #21

Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-11 (18-20) Sample Number: 118978

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	*ERL	<125	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	125
Hexachlorobenzene	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
Pentachlorobenzene	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
1,2,4,5-tetrachlorobenzene	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
Hexachloroethane	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
2,4-dichlorphenol	*ERL	<62.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	62.5
2,4,5-trichlorophenol	*ERL	<62.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	62.5
2,4,6-trichlorophenol	*ERL	<62.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	62.5
bis (2-chloroethly) ether	*ERL	<62.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	62.5
bis (2-chloroisopropyl) ether	*ERL	<62.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	62.5
bis (chloromethyl) ether	*ERL	<62.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	62.5
3,3-dichlorobenzidine	*ERL	<62.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	62.5
2,4-dinitrotoluene	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
Diphenylhydrazine	*ERL	<62.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	62.5
Hexachlorobutadiene	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
Hexachlorocyclopentadiene	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
Isophorone	*ERL	<62.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	62.5
Nitrobenzene	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
2,4-dinitro-o-cresol	*ERL	<62.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	62.5
2,4-dinitrophenols	*ERL	<62.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	62.5
n-nitrosodiethylamine	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
N-nitrosodimethylamine	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
N-nitrosodibutylamine	*ERL	<62.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	62.5
N-nitrosodiphenylamine	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
N-nitrosopyrrolidine	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
Pentachlorophenol	*ERL	<62.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	62.5
Dibutyl phthalate	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
di-2-ethylhexyl phthalate	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
Diethyl phthalate	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
Dimethyl phthalate	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
Anthracene	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
3,4-benzofloranthene	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
Benzo(k)fluoranthene	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
Fluoranthene	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
Fluorene	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5

*ERL - elevated reporting limit due to hydrocarbons present.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
Page #22

Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-11 (18-20) Sample Number: 118978

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
Pyrene	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
Naphthalene	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
1-methylnaphthalene		19	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
2-methylnaphthalene		20	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
Benzo-a-pyrene	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
Phenol	*ERL	<12.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	12.5
Surr. 2-Fluorophenol		58	%	8270C	02/16/99	02/19/99	MA	5620	5764	25-121
Surr. Phenol-d6		64	%	8270C	02/16/99	02/19/99	MA	5620	5764	24-113
Surr. Nitrobenzene-d5		100	%	8270C	02/16/99	02/19/99	MA	5620	5764	23-120
Surr. 2-Fluorobiphenyl		103	%	8270C	02/16/99	02/19/99	MA	5620	5764	30-115
Surr. 2,4,6-Tribromophenol		42	%	8270C	02/16/99	02/19/99	MA	5620	5764	19-122
Surr. Terphenyl-d14		79	%	8270C	02/16/99	02/19/99	MA	5620	5764	28-137

*ERL - elevated reporting limit due to hydrocarbons present.

Analytical Results Report

Cliff P. Brunson.
B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
Page: #23

Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-11 (29-31) Sample Number: 118979

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Hexachloroethane		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
bis (2-chloroethly) ether		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Isophorone		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
Nitrobenzene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Anthracene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
3,4-benzofloranthene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Fluoranthene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Fluorene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25

Analytical Results Report

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B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99
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Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB-11 (29-31)

Sample Number: 118979

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Pyrene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Naphthalene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Phenol		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Surr. 2-Fluorophenol		67	%	8270C	02/16/99	02/19/99	MA	5620	5764	25-121
Surr. Phenol-d6		70	%	8270C	02/16/99	02/19/99	MA	5620	5764	24-113
Surr. Nitrobenzene-d5		77	%	8270C	02/16/99	02/19/99	MA	5620	5764	23-120
[redacted]rr. 2-Fluorobiphenyl		72	%	8270C	02/16/99	02/19/99	MA	5620	5764	30-115
[redacted]. 2,4,6-Tribromophenol		73	%	8270C	02/16/99	02/19/99	MA	5620	5764	19-122
Surr. Terphenyl-d14		85	%	8270C	02/16/99	02/19/99	MA	5620	5764	28-137

Quality Control Report
Blanks

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99

Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Hexachloroethane		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
bis (2-chloroethly) ether		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Isophorone		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
Nitrobenzene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Anthracene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
3,4-benzofloranthene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Fluoranthene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Fluorene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25

Quality Control Report
Blanks

Date: 3/8/99

Order ID Number: 9902000254/255

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Pyrene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Naphthalene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Phenol		<0.25	mg/kg	8270C	02/16/99	02/19/99	MA	5620	5764	0.25
Surr. 2-Fluorophenol		69	%	8270C	02/16/99	02/19/99	MA	5620	5764	25-121
Surr. Phenol-d6		78	%	8270C	02/16/99	02/19/99	MA	5620	5764	24-113
Surr. Nitrobenzene-d5		78	%	8270C	02/16/99	02/19/99	MA	5620	5764	23-120
Surr. 2-Fluorobiphenyl		82	%	8270C	02/16/99	02/19/99	MA	5620	5764	30-115
Surr. 2,4,6-Tribromophenol		62	%	8270C	02/16/99	02/19/99	MA	5620	5764	19-122
Surr. Terphenyl-d14		84	%	8270C	02/16/99	02/19/99	MA	5620	5764	28-137
Benzidine		<2.5	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
Hexachloroethane		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
[redacted]-trichlorophenol		<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
bis (2-chloroethly) ether		<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
Isophorone		<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
Nitrobenzene		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
[redacted]thracene		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
[redacted]benzofloranthene		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25

Quality Control Report
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Order ID Number: 9902000254/255

Date: 3/8/99
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Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
Fluoranthene		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
Fluorene		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
Phenanthrene		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
Pyrene		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
Naphthalene		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
Phenol		<0.25	mg/kg	8270C	02/16/99	02/21/99	MA	5619	5763	0.25
Surr. 2-Fluorophenol		70	%	8270C	02/16/99	02/21/99	MA	5619	5763	25-121
Surr. Phenol-d6		83	%	8270C	02/16/99	02/21/99	MA	5619	5763	24-113
Surr. Nitrobenzene-d5		79	%	8270C	02/16/99	02/21/99	MA	5619	5763	23-120
Surr. 2-Fluorobiphenyl		75	%	8270C	02/16/99	02/21/99	MA	5619	5763	30-115
Surr. 2,4,6-Tribromophenol		76	%	8270C	02/16/99	02/21/99	MA	5619	5763	19-122
Surr. Terphenyl-d14		84	%	8270C	02/16/99	02/21/99	MA	5619	5763	28-137
Benzidine		<2.5	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
exachloroethane		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	1.25
bis (2-chloroethly) ether		<1.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
Isophorone		<1.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	1.25
Nitrobenzene		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
thyl phthalate		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25

Quality Control Report
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Date: 3/8/99

Order ID Number: 9902000254/255

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Dimethyl phthalate		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
Anthracene		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
3,4-benzofloranthene		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
Fluoranthene		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
Fluorene		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
Phenanthrene		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
Pyrene		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
Naphthalene		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
Phenol		<0.25	mg/kg	8270C	02/22/99	02/24/99	MA	5621	5761	0.25
Surr. 2-Fluorophenol		49	%	8270C	02/22/99	02/24/99	MA	5621	5761	25-121
Surr. Phenol-d6		59	%	8270C	02/22/99	02/24/99	MA	5621	5761	24-113
Surr. Nitrobenzene-d5		51	%	8270C	02/22/99	02/24/99	MA	5621	5761	23-120
Surr. 2-Fluorobiphenyl		51	%	8270C	02/22/99	02/24/99	MA	5621	5761	30-115
Surr. 2,4,6-Tribromophenol		49	%	8270C	02/22/99	02/24/99	MA	5621	5761	19-122
Surr. Terphenyl-d14		80	%	8270C	02/22/99	02/24/99	MA	5621	5761	28-137

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/08/99
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Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Phenol		80	mg/kg	83	104	02/19/99	5764
1,4-Dichlorobenzene		80	mg/kg	80	100	02/19/99	5764
2-nitrophenol		80	mg/kg	86	108	02/19/99	5764
2,4-Dichlorophenol		80	mg/kg	78	98	02/19/99	5764
Hexachlorobutadiene		80	mg/kg	82	103	02/19/99	5764
4-Chloro-3-methylphenol		80	mg/kg	80	100	02/19/99	5764
2,4,6-Trichlorophenol		80	mg/kg	78	98	02/19/99	5764
Acenaphthene		80	mg/kg	90	113	02/19/99	5764
n-Nitrosodiphenylamine		80	mg/kg	92	115	02/19/99	5764
Pentachlorophenol		80	mg/kg	64	80	02/19/99	5764
Fluoranthene		80	mg/kg	89	111	02/19/99	5764
Di-n-octylphthalate		80	mg/kg	64	80	02/19/99	5764
Benzo(a)pyrene		80	mg/kg	87	109	02/19/99	5764
Surr. 2-Fluorophenol		80	%	84	105	02/19/99	5764
Surr. Phenol-d6		80	%	82	103	02/19/99	5764
Surr. Nitroobenzene-d5		80	%	99	124	02/19/99	5764
Surr. 2-Fluorobiphenyl		80	%	91	114	02/19/99	5764
Surr. 2,4,6-Tribromophenol		80	%	80	100	02/19/99	5764
Surr. Terphenyl-d14		80	%	71	89	02/19/99	5764
Phenol		80	mg/kg	91	114	02/21/99	5763
1,4-Dichlorobenzene		80	mg/kg	81	101	02/21/99	5763
2-nitrophenol		80	mg/kg	84	105	02/21/99	5763
2,4-Dichlorophenol		80	mg/kg	83	104	02/21/99	5763
Hexachlorobutadiene		80	mg/kg	81	101	02/21/99	5763
4-Chloro-3-methylphenol		80	mg/kg	90	113	02/21/99	5763
2,4,6-Trichlorophenol		80	mg/kg	79	99	02/21/99	5763
Acenaphthene		80	mg/kg	87	109	02/21/99	5763
n-Nitrosodiphenylamine		80	mg/kg	92	115	02/21/99	5763
Pentachlorophenol		80	mg/kg	80	100	02/21/99	5763
Fluoranthene		80	mg/kg	87	109	02/21/99	5763
Di-n-octylphthalate		80	mg/kg	69	86	02/21/99	5763
Benzo(a)pyrene		80	mg/kg	88	110	02/21/99	5763
Surr. 2-Fluorophenol		80	%	86	108	02/21/99	5763
Surr. Phenol-d6		80	%	88	110	02/21/99	5763
Surr. Nitroobenzene-d5		80	%	98	123	02/21/99	5763
Surr. 2-Fluorobiphenyl		80	%	86	108	02/21/99	5763
Surr. 2,4,6-Tribromophenol		80	%	85	106	02/21/99	5763
Surr. Terphenyl-d14		80	%	74	93	02/21/99	5763

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/08/99
Page #30

Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Phenol		80	mg/kg	80	100	02/24/99	5761
1,4-Dichlorobenzene		80	mg/kg	76	95	02/24/99	5761
2-nitrophenol		80	mg/kg	77	96	02/24/99	5761
2,4-Dichlorophenol		80	mg/kg	76	95	02/24/99	5761
Hexachlorobutadiene		80	mg/kg	74	93	02/24/99	5761
4-Chloro-3-methylphenol		80	mg/kg	76	95	02/24/99	5761
2,4,6-Trichlorophenol		80	mg/kg	76	95	02/24/99	5761
Acenaphthene		80	mg/kg	75	94	02/24/99	5761
n-Nitrosodiphenylamine		80	mg/kg	77	96	02/24/99	5761
Pentachlorophenol		80	mg/kg	73	91	02/24/99	5761
Fluoranthene		80	mg/kg	75	94	02/24/99	5761
Di-n-octylphthalate		80	mg/kg	64	80	02/24/99	5761
Benzo(a)pyrene		80	mg/kg	75	94	02/24/99	5761
Surr. 2-Fluorophenol		80	%	80	100	02/24/99	5761
Surr. Phenol-d6		80	%	80	100	02/24/99	5761
Surr. Nitroobenzene-d5		80	%	75	94	02/24/99	5761
Surr. 2-Fluorobiphenyl		80	%	75	94	02/24/99	5761
Surr. 2,4,6-Tribromophenol		80	%	75	94	02/24/99	5761
Surr. Terphenyl-d14		80	%	73	91	02/24/99	5761

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99

Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Phenol	*	mg/kg	<0.25	100	68	68	100	71	71	4	2/19/99	5620	5764
2-Chlorophenol	*	mg/kg	<1.25	100	58	58	100	61	61	5	2/19/99	5620	5764
1,4-Dichlorobenzene	*	mg/kg	<0.25	100	55	55	100	57	57	4	2/19/99	5620	5764
n-Nitrosodi-n-propylamine	*	mg/kg	<0.25	100	73	73	100	76	76	4	2/19/99	5620	5764
1,2,4-trichlorobenzene	*	mg/kg	<0.25	100	59	59	100	60	60	2	2/19/99	5620	5764
4-Chloro-3-methylphenol	*	mg/kg	<1.25	100	86	86	100	86	86	0	2/19/99	5620	5764
Acenaphthene	*	mg/kg	<0.25	100	81	81	100	83	83	2	2/19/99	5620	5764
4-Nitrophenol	*	mg/kg	<1.25	100	24	24	100	20	20	18	2/19/99	5620	5764
2,4-Dinitrotoluene	*	mg/kg	<0.25	100	86	86	100	87	87	1	2/19/99	5620	5764
[illegible]achlorophenol	*	mg/kg	<1.25	100	66	66	100	68	68	3	2/19/99	5620	5764
[illegible]ene	*	mg/kg	<0.25	100	94	94	100	88	88	7	2/19/99	5620	5764
Surr. 2-Fluorophenol	*	%	69	100	60	60	100	62	62	3	2/19/99	5620	5764
Surr. Phenol-d6	*	%	78	100	64	64	100	68	68	6	2/19/99	5620	5764
Surr. Nitrobenzene-d5	*	%	78	100	75	75	100	75	75	0	2/19/99	5620	5764
Surr. 2-Fluorobiphenyl	*	%	82	100	71	71	100	72	72	1	2/19/99	5620	5764
Surr. 2,4,6-Tribromophenol	*	%	62	100	92	92	100	86	86	7	2/19/99	5620	5764
Surr. Terphenyl-d14	*	%	84	100	92	92	100	85	85	8	2/19/99	5620	5764
Phenol	*	mg/kg	<0.25	100	68	68	100	71	71	4	2/21/99	5619	5763
2-Chlorophenol	*	mg/kg	<1.25	100	58	58	100	61	61	5	2/21/99	5619	5763
1,4-Dichlorobenzene	*	mg/kg	<0.25	100	55	55	100	57	57	4	2/21/99	5619	5763
n-Nitrosodi-n-propylamine	*	mg/kg	<0.25	100	73	73	100	76	76	4	2/21/99	5619	5763
1,2,4-trichlorobenzene	*	mg/kg	<0.25	100	59	59	100	60	60	2	2/21/99	5619	5763
4-Chloro-3-methylphenol	*	mg/kg	<1.25	100	86	86	100	86	86	0	2/21/99	5619	5763
Acenaphthene	*	mg/kg	<0.25	100	81	81	100	83	83	2	2/21/99	5619	5763
4-Nitrophenol	*	mg/kg	<1.25	100	24	24	100	20	20	18	2/21/99	5619	5763
2,4-Dinitrotoluene	*	mg/kg	<0.25	100	86	86	100	87	87	1	2/21/99	5619	5763
Pentachlorophenol	*	mg/kg	<1.25	100	66	66	100	68	68	3	2/21/99	5619	5763
Pyrene	*	mg/kg	<0.25	100	94	94	100	88	88	7	2/21/99	5619	5763
Surr. 2-Fluorophenol	*	%	70	100	60	60	100	62	62	3	2/21/99	5619	5763
Surr. Phenol-d6	*	%	83	100	64	64	100	68	68	6	2/21/99	5619	5763
Surr. Nitrobenzene-d5	*	%	79	100	75	75	100	75	75	0	2/21/99	5619	5763
Surr. 2-Fluorobiphenyl	*	%	75	100	71	71	100	72	72	1	2/21/99	5619	5763
Surr. 2,4,6-Tribromophenol	*	%	76	100	92	92	100	86	86	7	2/21/99	5619	5763
Surr. Terphenyl-d14	*	%	84	100	92	92	100	85	85	8	2/21/99	5619	5763

[illegible]'s used for spike and spike duplicate.

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/8/99

Order ID Number: 9902000254/255
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Phenol		mg/kg	<0.25	100	64	64	100	55	55	15	2/24/99	5621	5761
2-Chlorophenol		mg/kg	<1.25	100	58	58	100	50	50	15	2/24/99	5621	5761
1,4-Dichlorobenzene		mg/kg	<0.25	100	53	53	100	46	46	14	2/24/99	5621	5761
n-Nitrosodi-n-propylamine		mg/kg	<0.25	100	69	69	100	59	59	16	2/24/99	5621	5761
1,2,4-trichlorobenzene		mg/kg	<0.25	100	55	55	100	49	49	12	2/24/99	5621	5761
4-Chloro-3-methylphenol		mg/kg	<1.25	100	76	76	100	70	70	8	2/24/99	5621	5761
Acenaphthene		mg/kg	<0.25	100	66	66	100	59	59	11	2/24/99	5621	5761
4-Nitrophenol		mg/kg	<1.25	100	80	80	100	76	76	5	2/24/99	5621	5761
2,4-Dinitrotoluene		mg/kg	<0.25	100	75	75	100	69	69	8	2/24/99	5621	5761
Pentachlorophenol		mg/kg	<1.25	100	57	57	100	55	55	4	2/24/99	5621	5761
[illegible]ne		mg/kg	<0.25	100	90	90	100	75	75	18	2/24/99	5621	5761
[illegible]r. 2-Fluorophenol		%	75	100	49	49	100	43	43	13	2/24/99	5621	5761
Surr. Phenol-d6		%	84	100	57	57	100	50	50	13	2/24/99	5621	5761
Surr. Nitrobenzene-d5		%	80	100	54	54	100	48	48	12	2/24/99	5621	5761
Surr. 2-Fluorobiphenyl		%	78	100	56	56	100	50	50	11	2/24/99	5621	5761
Surr. 2,4,6-Tribromophenol		%	74	100	70	70	100	65	65	7	2/24/99	5621	5761
Surr. Terphenyl-d14		%	138	100	86	86	100	71	71	19	2/24/99	5621	5761

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-
Attn: Nell Green

Report Date: *24-Feb-99*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Our Lab#: MEL99-01959 **Your Sample ID:** 118973
Date Logged In: 2/16/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:** Shell Westgate
Project #: **Date Submitted to Lab:** 2/16/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/12/99

EPA Method	Analyst	Prep Date	Analysis Date
60.3	DJF		2/19/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	95.6 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	2/17/99	2/18/99

Diluted 1:100 due to matrix interference

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 2.0 mg/kg	0.02
57-74-9	Chlordane(Total)	< 10 mg/kg	0.1
50-29-3	4,4'-DDT	< 3.0 mg/kg	0.03
60-57-1	Dieldrin	< 2.0 mg/kg	0.02
959-98-8	Endosulfan I	< 3.0 mg/kg	0.03
72-20-8	Endrin	< 5.0 mg/kg	0.05
76-44-8	Heptachlor	< 3.0 mg/kg	0.03

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PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-01959	8081	Decachlorobiphenyl (Surr)	2 %R *	41	129
		Surrogate diluted out due to matrix interference			
MEL99-01959	8081	Tetrachloro-m-xylene (Surr)	1 %R *	27	119
		Surrogate diluted out due to matrix interference			

End of Report

Report Approved By: Wade E. Bayer

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Your Sample ID: 118973

Lab Number MEL99-01959

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565 **Report Date:** *24-Feb-99*

Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Attn: Nell Green

Our Lab#: MEL99-01960 **Your Sample ID:** 118974
Date Logged In: 2/16/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:** Shell Westgate
Project #: **Date Submitted to Lab:** 2/16/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/12/99

EPA Method	Analyst	Prep Date	Analysis Date
0.3	DJF		2/19/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	92.7 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	2/17/99	2/18/99

Diluted 1:100 due to matrix interference

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 2.0 mg/kg	0.02
57-74-9	Chlordane(Total)	< 10 mg/kg	0.1
50-29-3	4,4'-DDT	< 3.0 mg/kg	0.03
60-57-1	Dieldrin	< 2.0 mg/kg	0.02
959-98-8	Endosulfan I	< 3.0 mg/kg	0.03
72-20-8	Endrin	< 5.0 mg/kg	0.05
76-44-8	Heptachlor	< 3.0 mg/kg	0.03

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Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-01960	8081	Decachlorobiphenyl (Surr)	2 %R *	41	129
		Surrogate diluted out due to matrix interference			
MEL99-01960	8081	Tetrachloro-m-xylene (Surr)	1 %R *	27	119
		Surrogate diluted out due to matrix interference			

End of Report

Report Approved By: Wade E. Bayer

Wade E. Bayer

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Your Sample ID: 118974

Lab Number MEL99-01960

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-
Attn: Nell Green

Report Date: *24-Feb-99*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Our Lab#: MEL99-01961 **Your Sample ID:** 118975
Date Logged In: 2/16/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:** Shell Westgate
Project #: **Date Submitted to Lab:** 2/16/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/12/99

EPA Method	Analyst	Prep Date	Analysis Date
160.3	DJF		2/19/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	90.2 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	2/17/99	2/18/99

CAS Number	Parameter	Result	Typical Report Limit
Diluted 1:100 due to matrix interference			
309-00-2	Aldrin	< 2.0 mg/kg	0.02
57-74-9	Chlordane(Total)	< 10 mg/kg	0.1
50-29-3	4,4'-DDT	< 3.0 mg/kg	0.03
60-57-1	Dieldrin	< 2.0 mg/kg	0.02
959-98-8	Endosulfan I	< 3.0 mg/kg	0.03
72-20-8	Endrin	< 5.0 mg/kg	0.05
76-44-8	Heptachlor	< 3.0 mg/kg	0.03

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-01961	8081	Decachlorobiphenyl (Surr)	2 %R *	41	129
		Surrogate diluted out due to matrix interference			
MEL99-01961	8081	Tetrachloro-m-xylene (Surr)	1 %R *	27	119
		Surrogate diluted out due to matrix interference			

End of Report

Report Approved By: Wade E. Bayer

Wade E. Bayer

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Your Sample ID: 118975

Lab Number MEL99-01961

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118967-79

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 254 / 255

Company Name: BBC International, Inc. Phone #: (505) 397-6388

Address: (Street, City, Zip) 1324 W. Marland, Hobbs, NM 88240 Fax #: (505) 397-0397

Contact Person: Cliff P. Brunson

Invoice to: (If different from above) Shell E & P Technology Co. ATTN: Wayne Hamilton

Project #: Project Name: Shell Westgate

Project Location: Hobbs, New Mexico Sampler Signature: Daniel A. Williams

ANALYSIS REQUEST

(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME	MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides [redacted]	BOD, TSS, pH	See Attached (Full Suite)	Total Chlorides (300-1)	Total Metals (6010)	Turn Around Time if different from standard	Hold
118967	TSB-4 (2-3)	2	4oz		X					X			2/12/99	9:20 am											X								
68	TSB-4 (3-5)	2	4oz		X					X			2/12/99	9:34 am											X								
69	TSB-4 (18-20)	2	4oz		X					X			2/12/99	9:45 am											X								
70	TSB-5 (2-3)	2	4oz		X					X			2/12/99	10:48 am											X								
71	TSB-5 (3-5)	2	4oz		X					X			2/12/99	10:53 am											X								
72	TSB-5 (18-20)	2	4oz		X					X			2/12/99	11:11 am											X								
73	TSB-12 (2-3)	2	4oz		X					X			2/12/99	12:55 pm														X					
74	TSB-12 (3-5)	2	4oz		X					X			2/12/99	1:02 pm														X					
75	TSB-12 (18-20)	2	4oz		X					X			2/12/99	1:22 pm														X					

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Daniel A. Williams	2-12-99	5:30 pm	[signature]	02/15/99	10:00 AM
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by: [signature]	02/15/99	13:45	Received at Laboratory by: Vicki Wrotha	Date: 2-15-99	Time: 1:45 pm

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

LAB USE ONLY

Intact Y / N

Headspace Y / N

Temp 4°

Log-in Review [signature]

REMARKS: All Samples Conformation Agreed Upon turnaround

Carrier #

ORIGINAL COPY

6701 Aberdeen Avenue, Ste. 9
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TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 254/255

Company Name: BBC International, Inc. Phone #: (505) 397-6388

Address: (Street, City, Zip) 1324 W. Marland, Hobbs, NM 88240 Fax #: (505) 397-0397

Contact Person: Cliff P. Brunson

Invoice to: (If different from above) Shell E & P Technology Co. ATTN: Wayne Hamilton

Project #: Project Name: Shell Westgate

Project Location: Hobbs, New Mexico Sampler Signature: Daniel A. Williams

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
118976	TSB-11 (2-3)	2	4oz		X					X			2/12/99	2:44pm
77	TSB-11 (3-5)	2	4oz		X					X			2/12/99	2:47pm
78	TSB-11 (18-20)	2	4oz		X					X			2/12/99	3:06pm
79	TSB-11 (29-31)	2	4oz		X					X			2/12/99	4:08pm
80	Field Blank	2	VOA	X				X						
81	Trip Blank	2	VOA											

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	See Attached (Full Suite)	Total Chlorides (300-1)	Total Metals (6010)	Turn Around Time if different from standard	Hold
										X	X								
										X	X								
										X	X								
										X	X								
										X don't Run unless per client 2-15									
										X don't Run									

Relinquished by: Daniel A. Williams Date: 2-12-99 Time: 5:30pm
Received by: Date: 02/15/99 Time: 10.00am

Relinquished by: Date: Time:
Received by: Date: Time:

Relinquished by: Date: 02/15/99 Time: 1345
Received at Laboratory by: Vicki Windham Date: 2-15-99 Time: 1:45pm

LAB USE ONLY
Intact (Y / N)
Headspace Y / N
Temp 4°
Log-in Review MS
Carrier #

REMARKS: All Samples Conformation Agreed Upon Turnaround

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/11/99
Page: # 1

Project Name: Shell Westgate
Project Location: Hobbs, NM
Order ID Number: 9902000293/294

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to *TraceAnalysis, Inc. for analysis:*

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
119130	TSB 17 (13-15)	Soil	02/16/99	9:28 a.m.	02/18/99
119131	TSB 17 (40-42)	Soil	02/16/99	11:35 a.m.	02/18/99
119132	Field Blank	Water	02/16/99		02/18/99
119133	Trip Blank	Water	02/16/99		02/18/99

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

This report shall not be reproduced except in its entirety, without written approval of the laboratory.

These results represent only the samples received in the laboratory.

This report consists of a total of 26 pages.

*119131 semi-volatile surrogate out of control limits.

*Field blank was analyzed 3 times with result showing methylene chloride present. Field blank analyzed fourth time out of hold time and methylene chloride could not be confirmed. Methylene chloride suspectedly due to laboratory contamination.

Dr. Blair Leftwich
Director

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99
Page # 2

Order ID Number: 9902000293/294
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB 17 (13-15)

Sample Number: 119130

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<130	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	130
Acrylonitrile		<130	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	130
Benzene		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
Carbon tetrachloride		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
Chlorobenzene		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
1,2-dichloroethane		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
1,1,2,2-tetrachloroethane		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
1,1,1-trichloroethane		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
1,1,2-trichloroethane		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
1,1,2-trichloroethylene		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
Chloroform		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
Dichlorobenzene		<52	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	52
1,1-dichloroethylene		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
Dichloropropenes		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
Ethylbenzene		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
Bromodichloromethane		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
Bromomethane		<130	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	130
Chloromethane		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
Dichlorodifluoromethane		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
Dichloromethane		<130	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	130
Trichlorofluoromethane		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
Tetrachloroethylene		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
Toluene		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
Trichloroethylene		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
Vinyl chloride		<52	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	52
m,p-xylene		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
o-xylene		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
1,1-dichloroethane		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
Ethylene dibromide		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
cis-1,2-dichlorethylene		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
trans-1,2-dichloroethylene		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	26
Methylene chloride		<130	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	130
Surr. Dibromofluoromethane		96	%	S-8260B	2/23/99	2/23/99	JG		0053	72-130
Surr. Toluene-d8		111	%	S-8260B	2/23/99	2/23/99	JG		0053	77-127
Surr. 4-Bromofluorobenzene		98	%	S-8260B	2/23/99	2/23/99	JG		0053	72-131

Order ID Number: 9902000293/294 Sample Number: 119130
Field Code: TSB 17 (13-15) Page # 3

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Hexachloroethane		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
bis (2-chloroethyl) ether		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Isophorone		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
Nitrobenzene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Anthracene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Fluoranthene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Fluorene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Phenanthrene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Pyrene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Naphthalene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Phenol		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Surr. 2-Fluorophenol		57	%	8270C	2/22/99	2/24/99	DG	0060	0055	25-121
Surr. Phenol-d6		66	%	8270C	2/22/99	2/24/99	DG	0060	0055	24-113
Surr. Nitrobenzene-d5		62	%	8270C	2/22/99	2/24/99	DG	0060	0055	23-120
Surr. 2-Fluorobiphenyl		60	%	8270C	2/22/99	2/24/99	DG	0060	0055	30-115
Surr. 2,4,6-Tribromophenol		68	%	8270C	2/22/99	2/24/99	DG	0060	0055	19-122
Surr. Terphenyl-d14		99	%	8270C	2/22/99	2/24/99	DG	0060	0055	28-137

Order ID Number: 9902000293/294 Date: 3/11/99
Project Name: Shell Westgate Page # 4
Project Location: Hobbs, NM

Sample Number: 119130

Field Code: TSB 17 (13-15)

Parameter	Flag		Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin		<0.02	mg/kg	8081	2/23/99	2/24/99	SH			0.02
Chlordane		<0.10	mg/kg	8081	2/23/99	2/24/99	SH			0.10
DDT		<0.03	mg/kg	8081	2/23/99	2/24/99	SH			0.03
Dieldrin		<0.02	mg/kg	8081	2/23/99	2/24/99	SH			0.02
Endosulfan		<0.03	mg/kg	8081	2/23/99	2/24/99	SH			0.03
Endrin		<0.05	mg/kg	8081	2/23/99	2/24/99	SH			0.05
Heptachlor		<0.03	mg/kg	8081	2/23/99	2/24/99	SH			0.03
PCB's		<0.1	mg/kg	8082	2/19/99	3/2/99	SO	0061	0056	0.1
Arsenic		<0.50	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	0.50
Barium		130	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	0.50
Cadmium		<0.10	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	0.10
Chromium		<0.50	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	0.50
Lead		<0.50	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	0.50
Total Mercury		0.17	mg/kg	7471A	2/22/99	2/24/99	BP	0063	0058	0.10
Selenium		<0.50	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	0.50
Silver		<0.50	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	0.50
Uranium		<5.0	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	5.0
Copper		2.4	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	1.0
Iron		5,930	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	2.0
Manganese		40	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	1.0
Zinc		21	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	2.0
Aluminum		9,900	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	10
Boron		78	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	10
Cobalt		<0.50	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	0.50
Molybdenum		<1.0	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	1.0
Nickel		9.0	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	0.50
Cyanide		<0.20	mg/kg	SM 4500CN C,E	2/24/99	2/24/99	SA	0059	0052	0.2
Fluoride		6.1	mg/kg	300.0	2/19/99	2/19/99	JS	0064	0059	0.1
Nitrate		4.4	mg/kg	300.0	2/19/99	2/19/99	JS	0064	0059	0.2
Chloride		140	mg/kg	300.0	2/19/99	2/19/99	JS	0064	0059	0.5
Sulfate		240	mg/kg	300.0	2/19/99	2/19/99	JS	0064	0059	0.5
TDS		830	mg/kg	160.1	2/18/99	2/18/99	SA	0065	0067	10
pH		8.4	s.u.	150.1	2/18/99	2/18/99	RS	0066	0060	---
TRPHC		<10.0	mg/kg	418.1	2/18/99	2/18/99	MF	5523	5646	10
Total Phenol		<0.50	mg/kg	SM 5530 A,D	2/22/99	2/22/99	MD	0067	0061	0.50
Total Radium		3.21	pCi/gm	901.1M		2/23/99	SW			

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99
Page #5

Order ID Number: 9902000293/294
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB 17 (40-42) Sample Number: 119131

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<125	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	125
Acrylonitrile		<125	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	125
Benzene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
Carbon tetrachloride		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
Chlorobenzene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
1,2-dichloroethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
1,1,2,2-tetrachloroethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
1,1,1-trichloroethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
1,1,2-trichloroethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
1,1,2-trichloroethylene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
Chloroform		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
Dichlorobenzene		<50	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	50
1,1-dichloroethylene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
Dichloropropenes		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
Ethylbenzene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
Bromodichloromethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
Bromomethane		<125	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	125
Chloromethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
Dichlorodifluoromethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
Dichloromethane		<125	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	125
Trichlorofluoromethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
Tetrachloroethylene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
Toluene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
Trichloroethylene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
Vinyl chloride		<50	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	50
m,p-xylene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
o-xylene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
1,1-dichloroethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
Ethylene dibromide		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
cis-1,2-dichlorethylene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
trans-1,2-dichloroethylene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	25
Methylene chloride		<125	ug/kg	S-8260B	2/23/99	2/23/99	JG		0053	125
Surr. Dibromofluoromethane		100	%	S-8260B	2/23/99	2/23/99	JG		0053	72-130
Surr. Toluene-d8		108	%	S-8260B	2/23/99	2/23/99	JG		0053	77-127
Surr. 4-Bromofluorobenzene		101	%	S-8260B	2/23/99	2/23/99	JG		0053	72-131

Order ID Number: 9902000293/294 Page #6

Field Code: TSB 17 (40-42) Sample Number: 119131

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Hexachloroethane		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
bis (2-chloroethyl) ether		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Isophorone		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
Nitrobenzene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Anthracene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Fluoranthene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Fluorene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Phenanthrene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Pyrene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Naphthalene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Phenol		<0.25	mg/kg	8270C	2/22/99	2/24/99	DG	0060	0055	0.25
Surr. 2-Fluorophenol		75	%	8270C	2/22/99	2/24/99	DG	0060	0055	25-121
Surr. Phenol-d6		84	%	8270C	2/22/99	2/24/99	DG	0060	0055	24-113
Surr. Nitrobenzene-d5		80	%	8270C	2/22/99	2/24/99	DG	0060	0055	23-120
Surr. 2-Fluorobiphenyl		78	%	8270C	2/22/99	2/24/99	DG	0060	0055	30-115
Surr. 2,4,6-Tribromophenol		74	%	8270C	2/22/99	2/24/99	DG	0060	0055	19-122
Surr. Terphenyl-d14	*	138	%	8270C	2/22/99	2/24/99	DG	0060	0055	28-137

*Surrogate out of control limits. Sample was nondetect & the surrogate came out within control limits in the MS/MSD.

Order ID Number: 9902000293/294 Date: 3/11/99
Project Name: Shell Westgate Page #7
Project Location: Hobbs, NM

Field Code: TSB 17 (40-42) Sample Number: 119131

Parameter	Flag		Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin		<0.02	mg/kg	8081	2/23/99	2/24/99	SH			0.02
Chlordane		<0.10	mg/kg	8081	2/23/99	2/24/99	SH			0.10
DDT		<0.03	mg/kg	8081	2/23/99	2/24/99	SH			0.03
Dieldrin		<0.02	mg/kg	8081	2/23/99	2/24/99	SH			0.02
Endosulfan		<0.03	mg/kg	8081	2/23/99	2/24/99	SH			0.03
Endrin		<0.05	mg/kg	8081	2/23/99	2/24/99	SH			0.05
Heptachlor		<0.03	mg/kg	8081	2/23/99	2/24/99	SH			0.03
PCB's		<0.1	mg/kg	8082	2/19/99	3/2/99	SO	0061	0056	0.1
Arsenic		<0.50	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	0.50
Barium		<0.50	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	0.50
Cadmium		<0.10	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	0.10
Chromium		<0.50	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	0.50
Lead		<0.50	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	0.50
Total Mercury		0.17	mg/kg	7471A	2/22/99	2/24/99	BP	0063	0058	0.10
Selenium		<0.50	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	0.50
Silver		<0.50	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	0.50
Uranium		<5.0	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	5.0
Copper		<1.0	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	1.0
Iron		2,470	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	2.0
Manganese		8.5	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	1.0
Zinc		3.8	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	2.0
Aluminum		2,470	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	10
Boron		24	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	10
Cobalt		<0.50	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	0.50
Molybdenum		<1.0	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	1.0
Nickel		<0.50	mg/kg	6010B	2/18/99	2/22/99	RR	0062	0057	0.50
Cyanide		<0.20	mg/kg	SM 4500CN C,E	2/24/99	2/24/99	SA	0059	0052	0.2
Fluoride		2.1	mg/kg	300.0	2/19/99	2/19/99	JS	0064	0059	0.1
Nitrate		1.6	mg/kg	300.0	2/12/99	2/12/99	JS	0064	0059	0.2
Chloride		100	mg/kg	300.0	2/12/99	2/12/99	JS	0064	0059	0.5
Sulfate		84	mg/kg	300.0	2/12/99	2/12/99	JS	0064	0059	0.5
TDS		370	mg/kg	160.1	2/18/99	2/18/99	SA	0065	0067	10
pH		8.5	s.u.	150.1	2/18/99	2/18/99	RS	0066	0060	---
TRPHC		<10.0	mg/kg	418.1	2/18/99	2/18/99	MF	5523	5646	10
Total Phenol		0.627	mg/kg	SM 5530 A,D	2/22/99	2/22/99	MD	0067	0061	0.50
Total Radium		0.20	pCi/gm	901.1M		2/23/99	SW			

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99
Page: #8

Order ID Number: 9902000293/294
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: Field Blank

Sample Number: 119132

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	5
Acrylonitrile		<5	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	5
Benzene		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Carbon tetrachloride		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Chlorobenzene		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
1,2-dichloroethane		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
1,1,1-trichloroethane		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
1,1,2-trichloroethane		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
[redacted]loroform		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
[redacted]ichlorobenzene		<2	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	2
1,1-dichloroethylene		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Dichloropropenes		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Ethylbenzene		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Bromodichloromethane		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Bromomethane		<5	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	5
Chloromethane		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Dichlorodifluoromethane		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Dichloromethane	*	48	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	5
Trichlorofluoromethane		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Tetrachloroethylene		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Toluene		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Trichloroethylene		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Vinyl chloride		<2	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	2
m,p-xylene		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
o-xylene		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
1,1-dichloroethane		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Ethylene dibromide		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Methylene chloride	*	48	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	5
Surr. Dibromofluoromethane		99	%	S-8260B	2/24/99	2/24/99	JG		0054	72-130
Surr. Toluene-d8		109	%	S-8260B	2/24/99	2/24/99	JG		0054	77-127
Surr. 4-Bromofluorobenzene		99	%	S-8260B	2/24/99	2/24/99	JG		0054	72-131

[redacted]ield blank was analyzed 3 times with result showing methylene chloride present. Field blank analyzed fourth time out of [redacted]old time and methylene chloride could not be confirmed. Methylene chloride suspectedly due to laboratory contamination.

Analytical Results Report

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Hobbs, NM 88240

Date: 03/11/99
Page: #9

Order ID Number: 9902000293/294
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: Trip Blank

Sample Number: 119133

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	5
Acrylonitrile		<5	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	5
Benzene		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Carbon tetrachloride		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Chlorobenzene		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
1,2-dichloroethane		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
1,1,1-trichloroethane		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
1,1,2-trichloroethane		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
[redacted]loroform		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
[redacted]chlorobenzene		<2	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	2
1,1-dichloroethylene		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Dichloropropenes		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Ethylbenzene		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Bromodichloromethane		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Bromomethane		<5	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	5
Chloromethane		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Dichlorodifluoromethane		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Dichloromethane		<5	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	5
Trichlorofluoromethane		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Tetrachloroethylene		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Toluene		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Trichloroethylene		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Vinyl chloride		<2	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	2
m,p-xylene		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
o-xylene		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
1,1-dichloroethane		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Ethylene dibromide		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	1
Methylene chloride		<5	ug/L	S-8260B	2/24/99	2/24/99	JG		0054	5
Surr. Dibromofluoromethane		99	%	S-8260B	2/24/99	2/24/99	JG		0054	72-130
Surr. Toluene-d8		109	%	S-8260B	2/24/99	2/24/99	JG		0054	77-127
Surr. 4-Bromofluorobenzene		97	%	S-8260B	2/24/99	2/24/99	JG		0054	72-131

Quality Control Report
Blanks

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1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99
Page #10

Order ID Number: 9902000293/294
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<125	ug/kg	125	2/23/99		0053
Acrylonitrile		<125	ug/kg	125	2/23/99		0053
Benzene		<25	ug/kg	25	2/23/99		0053
Carbon tetrachloride		<25	ug/kg	25	2/23/99		0053
Chlorobenzene		<25	ug/kg	25	2/23/99		0053
1,2-dichloroethane		<25	ug/kg	25	2/23/99		0053
1,1,2,2-tetrachloroethane		<25	ug/kg	25	2/23/99		0053
1,1,1-trichloroethane		<25	ug/kg	25	2/23/99		0053
1,1,2-trichloroethane		<25	ug/kg	25	2/23/99		0053
1,1,2-trichloroethylene		<25	ug/kg	25	2/23/99		0053
Chloroform		<25	ug/kg	25	2/23/99		0053
Dichlorobenzene		<50	ug/kg	50	2/23/99		0053
1,1-dichloroethylene		<25	ug/kg	25	2/23/99		0053
Dichloropropenes		<25	ug/kg	25	2/23/99		0053
Ethylbenzene		<25	ug/kg	25	2/23/99		0053
Bromodichloromethane		<25	ug/kg	25	2/23/99		0053
Bromomethane		<125	ug/kg	125	2/23/99		0053
Chloromethane		<25	ug/kg	25	2/23/99		0053
Dichlorodifluoromethane		<25	ug/kg	25	2/23/99		0053
Dichloromethane		<125	ug/kg	125	2/23/99		0053
Trichlorofluoromethane		<25	ug/kg	25	2/23/99		0053
Tetrachloroethylene		<25	ug/kg	25	2/23/99		0053
Toluene		<25	ug/kg	25	2/23/99		0053
Trichloroethylene		<25	ug/kg	25	2/23/99		0053
Vinyl chloride		<50	ug/kg	50	2/23/99		0053
m,p-xylene		<25	ug/kg	25	2/23/99		0053
o-xylene		<25	ug/kg	25	2/23/99		0053
1,1-dichloroethane		<25	ug/kg	25	2/23/99		0053
Ethylene dibromide		<25	ug/kg	25	2/23/99		0053
cis-1,2-dichlorethylene		<25	ug/kg	25	2/23/99		0053
trans-1,2-dichloroethylene		<25	ug/kg	25	2/23/99		0053
Methylene chloride		<125	ug/kg	125	2/23/99		0053
Surr. Dibromofluoromethane		98	%	72-130	2/23/99		0053
Surr. Toluene-d8		105	%	77-127	2/23/99		0053
Surr. 4-Bromofluorobenzene		98	%	72-131	2/23/99		0053

Order ID Number: 9902000293/294 Date: 3/11/99
Project Name: Shell Westgate Page #11
Project Location: Hobbs, NM

Parameter	Flag	Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	2/24/99		0054
Acrylonitrile		<5	ug/L	5	2/24/99		0054
Benzene		<1	ug/L	1	2/24/99		0054
Carbon tetrachloride		<1	ug/L	1	2/24/99		0054
Chlorobenzene		<1	ug/L	1	2/24/99		0054
1,2-dichloroethane		<1	ug/L	1	2/24/99		0054
1,1,2,2-tetrachloroethane		<1	ug/L	1	2/24/99		0054
1,1,1-trichloroethane		<1	ug/L	1	2/24/99		0054
1,1,2-trichloroethane		<1	ug/L	1	2/24/99		0054
1,1,2-trichloroethylene		<1	ug/L	1	2/24/99		0054
Chloroform		<1	ug/L	1	2/24/99		0054
Dichlorobenzene		<2	ug/L	2	2/24/99		0054
1,1-dichloroethylene		<1	ug/L	1	2/24/99		0054
Dichloropropenes		<1	ug/L	1	2/24/99		0054
Ethylbenzene		<1	ug/L	1	2/24/99		0054
Bromodichloromethane		<1	ug/L	1	2/24/99		0054
Bromomethane		<5	ug/L	5	2/24/99		0054
Chloromethane		<1	ug/L	1	2/24/99		0054
Dichlorodifluoromethane		<1	ug/L	1	2/24/99		0054
Dichloromethane		<5	ug/L	5	2/24/99		0054
Trichlorofluoromethane		<1	ug/L	1	2/24/99		0054
Tetrachloroethylene		<1	ug/L	1	2/24/99		0054
Toluene		<1	ug/L	1	2/24/99		0054
Trichloroethylene		<1	ug/L	1	2/24/99		0054
Vinyl chloride		<2	ug/L	2	2/24/99		0054
m,p-xylene		<1	ug/L	1	2/24/99		0054
o-xylene		<1	ug/L	1	2/24/99		0054
1,1-dichloroethane		<1	ug/L	1	2/24/99		0054
Ethylene dibromide		<1	ug/L	1	2/24/99		0054
cis-1,2-dichlorethylene		<1	ug/L	1	2/24/99		0054
trans-1,2-dichloroethylene		<1	ug/L	1	2/24/99		0054
Methylene chloride		<5	ug/L	5	2/24/99		0054
Surr. Dibromofluoromethane		106	%	72-130	2/24/99		0054
Surr. Toluene-d8		110	%	77-127	2/24/99		0054
Surr. 4-Bromofluorobenzene		99	%	72-131	2/24/99		0054

Order ID Number: 9902000293/294 Date: 3/11/99

Project Name: Shell Westgate Page #12

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Benzidine		<2.5	mg/kg	2.5	02/24/99	0060	0055
Hexachlorobenzene		<0.25	mg/kg	0.25	02/24/99	0060	0055
Pentachlorobenzene		<0.25	mg/kg	0.25	02/24/99	0060	0055
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	02/24/99	0060	0055
Hexachloroethane		<0.25	mg/kg	0.25	02/24/99	0060	0055
2,4-dichlorphenol		<1.25	mg/kg	1.25	02/24/99	0060	0055
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	02/24/99	0060	0055
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	02/24/99	0060	0055
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	02/24/99	0060	0055
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	02/24/99	0060	0055
bis (chloromethyl) ether		<1.25	mg/kg	1.25	02/24/99	0060	0055
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	02/24/99	0060	0055
2,4-dinitrotoluene		<0.25	mg/kg	0.25	02/24/99	0060	0055
Diphenylhydrazine		<1.25	mg/kg	1.25	02/24/99	0060	0055
Hexachlorobutadiene		<0.25	mg/kg	0.25	02/24/99	0060	0055
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	02/24/99	0060	0055
Isophorone		<1.25	mg/kg	1.25	02/24/99	0060	0055
Nitrobenzene		<0.25	mg/kg	0.25	02/24/99	0060	0055
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	02/24/99	0060	0055
2,4-dinitrophenols		<1.25	mg/kg	1.25	02/24/99	0060	0055
[redacted]nitrosodiethylamine		<0.25	mg/kg	0.25	02/24/99	0060	0055
[redacted]nitrosodimethylamine		<0.25	mg/kg	0.25	02/24/99	0060	0055
N-nitrosodibutylamine		<1.25	mg/kg	1.25	02/24/99	0060	0055
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	02/24/99	0060	0055
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	02/24/99	0060	0055
Pentachlorophenol		<1.25	mg/kg	1.25	02/24/99	0060	0055
Dibutyl phthalate		<0.25	mg/kg	0.25	02/24/99	0060	0055
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	02/24/99	0060	0055
Diethyl phthalate		<0.25	mg/kg	0.25	02/24/99	0060	0055
Dimethyl phthalate		<0.25	mg/kg	0.25	02/24/99	0060	0055
Anthracene		<0.25	mg/kg	0.25	02/24/99	0060	0055
3,4-Benzofluoranthene		<0.25	mg/kg	0.25	02/24/99	0060	0055
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	02/24/99	0060	0055
Fluoranthene		<0.25	mg/kg	0.25	02/24/99	0060	0055
Fluorene		<0.25	mg/kg	0.25	02/24/99	0060	0055
Phenanthrene		<0.25	mg/kg	0.25	02/24/99	0060	0055
Pyrene		<0.25	mg/kg	0.25	02/24/99	0060	0055
Naphthalene		<0.25	mg/kg	0.25	02/24/99	0060	0055
1-methylnaphthalene		<0.25	mg/kg	0.25	02/24/99	0060	0055
2-methylnaphthalene		<0.25	mg/kg	0.25	02/24/99	0060	0055
Benzo-a-pyrene		<0.25	mg/kg	0.25	02/24/99	0060	0055
Phenol		<0.25	mg/kg	0.25	02/24/99	0060	0055
Surr. 2-Fluorophenol		49	%	25-121	02/24/99	0060	0055
Surr. Phenol-d6		59	%	24-113	02/24/99	0060	0055
Surr. Nitrobenzene-d5		51	%	23-120	02/24/99	0060	0055
Surr. 2-Fluorobiphenyl		51	%	30-115	02/24/99	0060	0055
[redacted]rr. 2,4,6-Tribromophenol		49	%	19-122	02/24/99	0060	0055
Surr. Terphenyl-d14		80	%	28-137	02/24/99	0060	0055

Quality Control Report
Blanks

Order ID Number: 9902000293/294
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/11/99
Page #13

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
PCB		<0.1	mg/kg	0.1	03/02/99	0061	0056
Arsenic		<0.50	mg/kg	0.50	02/22/99	0062	0057
Barium		<0.50	mg/kg	0.50	02/22/99	0062	0057
Cadmium		<0.10	mg/kg	0.10	02/22/99	0062	0057
Chromium		<0.50	mg/kg	0.50	02/22/99	0062	0057
Lead		<0.50	mg/kg	0.50	02/22/99	0062	0057
Total Mercury		<0.10	mg/kg	0.10	02/24/99	0063	0058
Selenium		<0.50	mg/kg	0.50	02/22/99	0062	0057
Silver		<0.50	mg/kg	0.50	02/22/99	0062	0057
Uranium		<5.0	mg/kg	5.0	02/22/99	0062	0057
Copper		<1.0	mg/kg	1.0	02/22/99	0062	0057
Iron		<2.0	mg/kg	2.0	02/22/99	0062	0057
Manganese		<1.0	mg/kg	1.0	02/22/99	0062	0057
Zinc		<2.0	mg/kg	2.0	02/22/99	0062	0057
Aluminum		<10	mg/kg	10	02/22/99	0062	0057
Boron		<10	mg/kg	10	02/22/99	0062	0057
Cobalt		<0.50	mg/kg	0.50	02/22/99	0062	0057
Molybdenum		<1.0	mg/kg	1.0	02/22/99	0062	0057
Nickel		<0.50	mg/kg	0.50	02/22/99	0062	0057
Cyanide		<0.20	mg/kg	0.20	02/24/99	0059	0052
Fluoride		<0.1	mg/kg	0.1	02/19/99	0064	0059
Nitrate		<0.2	mg/kg	0.2	02/19/99	0064	0059
Chloride		<0.5	mg/kg	0.5	02/19/99	0064	0059
Sulfate		<0.5	mg/kg	0.5	02/19/99	0064	0059
Total Dissolved Solids		<10	mg/kg	10	02/18/99	0065	0067
TRPHC		<10.0	mg/kg	10	02/18/99	5523	5646
Total Phenols		<0.50	mg/kg	0.50	02/22/99	0067	0061

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/11/99
Page #14

Order ID Number: 9902000293/294
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	111	111	02/23/99	0053
1,1-Dichloroethene		100	ug/L	92	92	02/23/99	0053
Chloroform		100	ug/L	99	99	02/23/99	0053
1,2-Dichloropropane		100	ug/L	102	102	02/23/99	0053
Toluene		100	ug/L	101	101	02/23/99	0053
Chlorobenzene		100	ug/L	105	105	02/23/99	0053
Ethylbenzene		100	ug/L	106	106	02/23/99	0053
Surr. Dibromofluoromethane		100	ug/L	96	96	02/23/99	0053
Surr. Toluene-d8		100	ug/L	108	108	02/23/99	0053
Surr. 4-Bromofluorobenzene		100	ug/L	97	97	02/23/99	0053
Vinyl chloride		100	ug/L	111	111	02/24/99	0054
1,1-Dichloroethene		100	ug/L	94	94	02/24/99	0054
Chloroform		100	ug/L	100	100	02/24/99	0054
1,2-Dichloropropane		100	ug/L	103	103	02/24/99	0054
Toluene		100	ug/L	102	102	02/24/99	0054
Chlorobenzene		100	ug/L	104	104	02/24/99	0054
Ethylbenzene		100	ug/L	106	106	02/24/99	0054
Surr. Dibromofluoromethane		100	ug/L	98	98	02/24/99	0054
Surr. Toluene-d8		100	ug/L	108	108	02/24/99	0054
Surr. 4-Bromofluorobenzene		100	ug/L	99	99	02/24/99	0054
Phenol		80	mg/L	80	100	02/24/99	0055
1,4-Dichlorobenzene		80	mg/L	76	95	02/24/99	0055
2-nitrophenol		80	mg/L	77	96	02/24/99	0055
2,4-Dichlorophenol		80	mg/L	76	95	02/24/99	0055
Hexachlorobutadiene		80	mg/L	74	93	02/24/99	0055
4-Chloro-3-methylphenol		80	mg/L	76	95	02/24/99	0055
2,4,6-Trichlorophenol		80	mg/L	76	95	02/24/99	0055
Acenaphthene		80	mg/L	75	94	02/24/99	0055
n-Nitrosodiphenylamine		80	mg/L	77	96	02/24/99	0055
Pentachlorophenol		80	mg/L	73	91	02/24/99	0055
Fluoranthene		80	mg/L	75	94	02/24/99	0055
Di-n-octylphthalate		80	mg/L	64	80	02/24/99	0055
Benzo(a)pyrene		80	mg/L	75	94	02/24/99	0055
Surr. 2-Fluorophenol		80	mg/L	80	100	02/24/99	0055
Surr. Phenol-d6		80	mg/L	80	100	02/24/99	0055
Surr. Nitroobenzene-d5		80	mg/L	75	94	02/24/99	0055
Surr. 2-Fluorobiphenyl		80	mg/L	75	94	02/24/99	0055
Surr. 2,4,6-Tribromophenol		80	mg/L	75	94	02/24/99	0055
Surr. Terphenyl-d14		80	mg/L	73	91	02/24/99	0055

Order ID Number: 9902000293/294
Project Name: Shell Westgate

Date: 03/11/99
Page #15

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
PCB		0.4	mg/L	0.34	85	03/02/99	0056
Arsenic		1.0	mg/L	0.98	98	02/22/99	0057
Barium		1.0	mg/L	0.99	99	02/22/99	0057
Cadmium		1.0	mg/L	1.0	100	02/22/99	0057
Chromium		1.0	mg/L	0.99	99	02/22/99	0057
Lead		1.0	mg/L	0.99	99	02/22/99	0057
Total Mercury		5.0	mg/L	4.6	92	02/24/99	0058
Selenium		1.0	mg/L	0.99	99	02/22/99	0057
Silver		0.20	mg/L	0.19	95	02/22/99	0057
Uranium		1.0	mg/L	0.98	98	02/22/99	0057
Copper		1.0	mg/L	0.97	97	02/22/99	0057
Iron		1.0	mg/L	0.98	98	02/22/99	0057
Manganese		1.0	mg/L	0.99	99	02/22/99	0057
Zinc		1.0	mg/L	0.99	99	02/22/99	0057
Aluminum		1.0	mg/L	0.97	97	02/22/99	0057
Boron		1.0	mg/L	0.97	97	02/22/99	0057
Cobalt		1.0	mg/L	0.99	99	02/22/99	0057
Molybdenum		1.0	mg/L	0.98	98	02/22/99	0057
Nickel		1.0	mg/L	0.98	98	02/22/99	0057
Cyanide		0.120	mg/L	0.128	107	02/24/99	0052
[illegible]oride		2.5	mg/L	2.590	104	02/19/99	0059
[illegible]itrate		5.0	mg/L	4.950	99	02/19/99	0059
Chloride		12.5	mg/L	12.18	97	02/19/99	0059
Sulfate		12.5	mg/L	12.57	101	02/19/99	0059
TDS		1000	mg/L	993	99	02/18/99	0067
pH		7.0	s.u.	7.0	100	02/18/99	0060
TRPHC		100	mg/L	98	98	02/18/99	5646
Total Phenol		0.80	mg/L	0.816	102	02/15/99	0061

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99
Page #16

Order ID Number: 9902000293/294
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene	*	ug/kg	<25	100	86	86	100	85	85	1	2/23/99		0053
Benzene	*	ug/kg	<25	100	106	106	100	107	107	1	2/23/99		0053
Trichloroethene	*	ug/kg	<25	100	107	107	100	106	106	1	2/23/99		0053
Toluene	*	ug/kg	<25	100	105	105	100	107	107	2	2/23/99		0053
Chlorobenzene	*	ug/kg	<25	100	108	108	100	108	108	0	2/23/99		0053
Surr. Dibromofluoromethane	*	%	98	100	101	101	100	102	102	1	2/23/99		0053
Surr. Toluene-d8	*	%	105	100	109	109	100	107	107	2	2/23/99		0053
Surr. 4-Bromofluorobenzene	*	%	98	100	100	100	100	100	100	0	2/23/99		0053
1,1-Dichloroethene		ug/L	<1	100	87	87	100	88	88	1	2/24/99		0054
[illegible]enzene		ug/L	<1	100	106	106	100	108	108	2	2/24/99		0054
[illegible]richloroethene		ug/L	<1	100	106	106	100	107	107	1	2/24/99		0054
Toluene		ug/L	<1	100	104	104	100	105	105	1	2/24/99		0054
Chlorobenzene		ug/L	<1	100	108	108	100	110	110	2	2/24/99		0054
Surr. Dibromofluoromethane		%	99	100	100	100	100	101	101	1	2/24/99		0054
Surr. Toluene-d8		%	109	100	111	111	100	110	110	1	2/24/99		0054
Surr. 4-Bromofluorobenzene		%	97	100	97	97	100	98	98	1	2/24/99		0054

*LCS's used for spike or spike duplicate.

Order ID Number: 9902000293/294
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/11/99
Page #17

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Phenol		mg/kg	<0.25	100	64	64	100	55	55	15	2/24/99	0060	0055
2-Chlorophenol		mg/kg	<1.25	100	58	58	100	50	50	15	2/24/99	0060	0055
1,4-Dichlorobenzene		mg/kg	<0.25	100	53	53	100	46	46	14	2/24/99	0060	0055
n-Nitrosodi-n-propylamine		mg/kg	<0.25	100	69	69	100	59	59	16	2/24/99	0060	0055
1,2,4-trichlorobenzene		mg/kg	<0.25	100	55	55	100	49	49	12	2/24/99	0060	0055
4-Chloro-3-methylphenol		mg/kg	<1.25	100	76	76	100	70	70	8	2/24/99	0060	0055
Acenaphthene		mg/kg	<0.25	100	66	66	100	59	59	11	2/24/99	0060	0055
4-Nitrophenol		mg/kg	<1.25	100	80	80	100	76	76	5	2/24/99	0060	0055
2,4-Dinitrotoluene		mg/kg	<0.25	100	75	75	100	69	69	8	2/24/99	0060	0055
Pentachlorophenol		mg/kg	<1.25	100	57	57	100	55	55	4	2/24/99	0060	0055
Pyrene		mg/kg	<0.25	100	90	90	100	75	75	18	2/24/99	0060	0055
Surr. 2-Fluorophenol		%	75	100	49	49	100	43	43	13	2/24/99	0060	0055
Surr. Phenol-d6		%	84	100	57	57	100	50	50	13	2/24/99	0060	0055
Surr. Nitrobenzene-d5		%	80	100	54	54	100	48	48	12	2/24/99	0060	0055
Surr. 2-Fluorobiphenyl		%	78	100	56	56	100	50	50	11	2/24/99	0060	0055
Surr. 2,4,6-Tribromophenol		%	74	100	70	70	100	65	65	7	2/24/99	0060	0055
Surr. Terphenyl-d14		%	138	100	86	86	100	71	71	19	2/24/99	0060	0055
PCB		mg/kg	<0.1	100	140	114	100	124	124	12	2/16/99	0061	0056
Arsenic		mg/kg	<0.50	200	218	109	200	201	101	8	2/22/99	0062	0057
Barium	*	mg/kg	<0.50	200	218	109	200	224	112	3	2/22/99	0062	0057
Cadmium		mg/kg	<0.10	200	203	102	200	189	95	7	2/22/99	0062	0057
Chromium		mg/kg	<0.50	200	219	110	200	209	105	5	2/22/99	0062	0057
Lead		mg/kg	<0.50	200	212	85	200	203	102	4	2/22/99	0062	0057
Total Mercury		mg/kg	0.17	2.5	2.6	97	2.5	2.7	101	4	2/24/99	0063	0058
Selenium		mg/kg	<0.50	200	209	105	200	200	100	4	2/22/99	0062	0057
Silver		mg/kg	<0.50	25	25	80	25	24	75	6	2/22/99	0062	0057
Uranium		mg/kg	<5.0	200	230	115	200	225	113	2	2/22/99	0062	0057
Copper		mg/kg	2.4	200	217	107	200	202	100	7	2/22/99	0062	0057
Iron	*	mg/kg	<2.0	200	225	113	200	220	110	2	2/22/99	0062	0057
Manganese		mg/kg	40	200	260	110	200	248	104	5	2/22/99	0062	0057
Zinc		mg/kg	21	200	227	103	200	214	97	6	2/22/99	0062	0057
Aluminum	*	mg/kg	<10	250	250	100	250	238	95	5	2/22/99	0062	0057
Boron		mg/kg	78	200	263	93	200	243	83	11	2/22/99	0062	0057
Cobalt		mg/kg	<0.50	200	204	102	200	195	98	5	2/22/99	0062	0057
Molybdenum		mg/kg	<1.0	20	18	90	20	17	85	6	2/22/99	0062	0057
Nickel		mg/kg	9.0	200	224	91	200	214	89	5	2/22/99	0062	0057
Cyanide		mg/kg	<0.20	3.0	2.7	90	3.0	2.7	90	1	2/24/99	0059	0052
Fluoride		mg/kg	2.1	5.0	7.20	102	5.0	7.09	100	2	2/19/99	0064	0059
Nitrate		mg/kg	1.6	10	11.06	95	10	11.14	95	1	2/19/99	0064	0059
Chloride		mg/kg	100	25	127.38	110	125	126.87	108	2	2/19/99	0064	0059
Sulfate		mg/kg	84	25	107.27	93	125	106.90	92	1	2/19/99	0064	0059
TRPHC		mg/kg	<10	250	200	80	250	207	83	3	2/18/99	5523	5646
Total Phenol		mg/kg	0.627	5.0	5.57	99	5.0	5.78	103	4	2/22/99	0067	0061

*LCS's used for spike and spike dulplicate.

Quality Control Report
Duplicate

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/11/99
Page #18

Order ID Number: 9902000293/294
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Duplicate Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	8.5	8.5	0	2/18/99	0066	0060
TDS		mg/kg	370	410	10	2/18/99	0065	0067

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-
Attn: Nell Green

Report Date: *25-Feb-99*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Our Lab#: MEL99-02284 **Your Sample ID:** 119130
Date Logged In: 2/19/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:**
Project #: **Date Submitted to Lab:** 2/19/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/16/99

EPA Method	Analyst	Prep Date	Analysis Date
160.3	DJF		2/19/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	90.2 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	2/23/99	2/24/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 mg/kg	0.02
57-74-9	Chlordane(Total)	< 0.10 mg/kg	0.1
50-29-3	4,4'-DDT	< 0.03 mg/kg	0.03
60-57-1	Dieldrin	< 0.02 mg/kg	0.02
959-98-8	Endosulfan I	< 0.03 mg/kg	0.03
72-20-8	Endrin	< 0.05 mg/kg	0.05
76-44-8	Heptachlor	< 0.03 mg/kg	0.03

6878 S. STATE ROUTE 100 • P.O. BOX 76 • MELMORE, OH 44845-9999
PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-02284	8081	Decachlorobiphenyl (Surr)	76 %R	41	129
MEL99-02284	8081	Tetrachloro-m-xylene (Surr)	66 %R	27	119

End of Report

Report Approved By: Wade E. Bayer

Wade E. Bayer

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Your Sample ID: 119130

Lab Number MEL99-02284

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-
Attn: Nell Green

Report Date: *25-Feb-99*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Our Lab#: MEL99-02285 **Your Sample ID:** 119131
Date Logged In: 2/19/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:**
Project #: **Date Submitted to Lab:** 2/19/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/16/99

EPA Method	Analyst	Prep Date	Analysis Date
160.3	DJF		2/19/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	95.2 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	2/23/99	2/24/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 mg/kg	0.02
57-74-9	Chlordane(Total)	< 0.10 mg/kg	0.1
50-29-3	4,4'-DDT	< 0.03 mg/kg	0.03
60-57-1	Dieldrin	< 0.02 mg/kg	0.02
959-98-8	Endosulfan I	< 0.03 mg/kg	0.03
72-20-8	Endrin	< 0.05 mg/kg	0.05
76-44-8	Heptachlor	< 0.03 mg/kg	0.03

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PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-02285	8081	Decachlorobiphenyl (Surr)	82 %R	41	129
MEL99-02285	8081	Tetrachloro-m-xylene (Surr)	66 %R	27	119

End of Report

Report Approved By: Wade E. Bayer

Wade E. Bayer

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Your Sample ID: 119131

Lab Number MEL99-02285

6878 S. STATE ROUTE 100 • P.O. BOX 76 • MELMORE, OH 44845-9999
PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

American Radiation Services, Inc.

Laboratory Analysis Report

Prepared For:

Trace Analysis, Inc.
Nell Green
6701 Aberdeen Ave, Ste. 9
Lubbock, TX 79424
Phone: 806-794-1296
Fax: 806-794-1298

Quality Assurance Review

Danny L. Coleman
Laboratory Manager

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

ARS
AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-99-0142	**P.O. Number:**	N/A
Client I.D.:	119130	**ARS Sample I.D.:**	ARS-99-0432
Date Sampled:	2/16/99	**Date Received:**	2/23/99
Time Sampled:	0928	**Time Received:**	1015
Type of Sample:	Solid	**Date of Report:**	3/2/99

Analysis Description	Analysis Result	Analysis Error ±2 Sigma	Analysis Units	Analysis Result	Analysis Error ±2 Sigma	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	2.74	2.14	pCi/gm	0.101	0.079	Bq/gm	EPA 901.1M	02/23/99 12:47	sw
Ra-228	0.47	0.22	pCi/gm	0.017	0.008	Bq/gm	EPA 901.1M	02/23/99 12:47	sw
Pb-210	3.29	2.65	pCi/gm	0.122	0.098	Bq/gm	EPA 901.1M	02/23/99 12:47	sw
Total Activity	13.15	N/A	pCi/gm	0.486	N/A	Bq/gm	EPA 901.1M	02/23/99 12:47	sw

Notes: Project: Shell

Quality Assurance Review

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AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-99-0142	**P.O. Number:**	N/A
Client I.D.:	119131	**ARS Sample I.D.:**	ARS-99-0433
Date Sampled:	2/16/99	**Date Received:**	2/23/99
Time Sampled:	1135	**Time Received:**	1015
Type of Sample:	Solid	**Date of Report:**	3/2/99

Analysis Description	Analysis Result	Analysis Error ±2 Sigma	Analysis Units	Analysis Result	Analysis Error ±2 Sigma	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	< 0.99	N/A	pCi/gm	< 0.037	N/A	Bq/gm	EPA 901.1M	02/23/99 14:35	sw
Ra-228	0.20	0.17	pCi/gm	0.007	0.006	Bq/gm	EPA 901.1M	02/23/99 14:35	sw
Pb-210	< 1.13	N/A	pCi/gm	< 0.042	N/A	Bq/gm	EPA 901.1M	02/23/99 14:35	sw
Total Activity	3.33	N/A	pCi/gm	0.123	N/A	Bq/gm	EPA 901.1M	02/23/99 14:35	sw

Notes: Project: Shell

Quality Assurance Review

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1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

Notes:

Comments:

1.0) Soil and Sludge analysis are reported on a wet basis or an as received basis unless otherwise indicated.
2.0) The data in this report are within the limits of uncertainty specified in the reference method unless specified.
3.0) Modified analysis procedures are procedures that are modified to meet the certain specifications. An example may be the use of a water method to analyze a solid matrix due to the lack of an officially recognized procedure for the analysis of the solid matrix.
4.0) Derived Air Concentrations and Effluent Release Concentrations are obtained from 10 CFR 20 Appendix B.
5.0) Total activity is actually total gamma activity and is determined utilizing the prominent gamma emitters from the naturally occurring radioactive decay chains and other prominent radioactive nuclides. Total activity may be lower than actual total activity due to the extent of secular equilibrium achieved in the various decay chains at the time of analysis. The total activity is not representative of nuclides that emit soley alpha or beta particles.
6.0) Ra-228 is determinded via secular equilibrium with its daughter, Actinium 228. (Gamma Spectroscopy only).
7.0) U-238 is determined via secular equilibrium with its daughter, Thorium 234. (Gamma Spectroscopy only).
8.0) All Gamma spectroscopy was performed utilizing high purity germanium detectors (HPGE).

Method References:

1.0) EPA 600/4-80-032, Prescribed Procedures for the Measurements of Radioactivity in Drinking Water, August 1980.
2.0) Standard Methods for the Examination of Water and Waste Water, 18th, 1992.
3.0) EPA SW-846, Test Methods for Evaluating Solid Waste, Third Edition, (9/86). (Updated through 1995).
4.0) EPA 600/4/79-020, Methods for Chemical Analysis of Water and Waste, March 1983.
5.0) HASL 300

Definitions:

1.0)	BDL	Analyte not detected because the value was below the detection limit.
2.0)	ND	Not detected above the detection limit.
3.0)	Detection Limit	The minimum amount of the analyte that ARS can detect utilizing the specific analysis.
4.0)	B	Method Bank
5.0)	D	Method Duplicate
6.0)	MS	Matrix Spike
7.0)	S	Spike
8.0)	RS	Reference Spike
9.0)	*SC	Subcontracted out to another qualified laboratory
10.0)	NR	Not Referenced

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119130-33

Page 1 of 1

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 293/294

Company Name: BBC International, Inc. Phone #: (505) 397-6388

Address: (Street, City, Zip) 1324 W. Marland, Hobbs, NM 88240 Fax #: (505) 397-0397

Contact Person: Cliff P. Brunson

Invoice to: (If different from above) Shell E & P Technology Co. ATTN: Wayne Hamilton

Project #: Project Name: Shell Westgate

Project Location: Hobbs, New Mexico Sampler Signature: Daniel A. Williams

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
119130	TSB-17 (13-15)	5	4oz		X					X			2/16/99	9:28 am
	TSB-17 (13-15)	1	VOA		X							X	2-16-99	9:28 am
119131	TSB-17 (40-42)	5	4oz		X					X			2/16/99	11:35 am
	TSB-17 (40-42)	1	VOA		X							X	2/16/99	11:35 am
119132	Field Blank	2	VOA	X				X					2/16/99	
33	Trip Blank	2	VOA											

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	See Attached (Full Suite)	Total Chlorides (300-1)	Total Metals (6010)	Turn Around Time if different from standard	Hold
															X				
															X				
															X				
															X				
										✓									
										✓									

Relinquished by: Daniel A. Williams Date: 2-16-99 Time: 6:00pm

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received at Laboratory by: Vicki Wrather Date: 2-18-99 Time: 9:30a

LAB USE ONLY

Intact (Y) / N

Headspace Y / N

Temp 4 °

Log-in Review MS

REMARKS: Agreed Upon Turnaround

Carrier # BUS 902071989

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/11/99
Page: #1

Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
120210	GMW 10 (3-5)	Soil	3/3/99	8:50 a.m.	3/4/99
120211	GMW 10 (63-65)	Soil	3/3/99	9:58 a.m.	3/4/99
120212	GMW 10 (63-65D)	Soil	3/3/99	9:58 a.m.	3/4/99
120213	TSB 9 (2-3)	Soil	3/3/99	9:32 a.m	3/4/99
120214	TSB 9 (3-5)	Soil	3/3/99	9:37 a.m	3/4/99
120215	TSB 9 (18-20)	Soil	3/3/99	10:53 a.m.	3/4/99
120216	TSB 9 (48-50)	Soil	3/3/99	12:13 p.m.	3/4/99
120217	GSB 9 (2-3)	Soil	3/3/99	4:04 p.m.	3/4/99
120218	GSB 10 (2-3)	Soil	3/3/99	4:47 p.m.	3/4/99
120219	GMW 9 (8-10)	Soil	3/3/99	1:56 p.m.	3/4/99
120220	GMW 9 (63-65)	Soil	3/3/99	3:22 p.m.	3/4/99
120221	GMW 9 (63-65D)	Soil	3/3/99	3:22 p.m.	3/4/99

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

This report shall not be reproduced except in its entirety, without written approval of the laboratory.

These results represent only the samples received in the laboratory.

This report consists of a total of 30 pages.

*Semi-volatiles 120210, 120217, 120218, 120221 elevated reporting limit due to hydrocarbons present.

Dr. Blair Leftwich
Director

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99
Page: #2

Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 10 (3-5) Sample Number: 120210

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	*ERL	<25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	25
Hexachlorobenzene	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
Pentachlorobenzene	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
1,2,4,5-tetrachlorobenzene	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
Hexachloroethane	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
2,4-dichlorphenol	*ERL	<12.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	12.5
2,4,5-trichlorophenol	*ERL	<12.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	12.5
2,4,6-trichlorophenol	*ERL	<12.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	12.5
bis (2-chloroethyl) ether	*ERL	<12.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	12.5
bis (2-chloroisopropyl) ether	*ERL	<12.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	12.5
bis (chloromethyl) ether	*ERL	<12.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	12.5
3,3-dichlorobenzidine	*ERL	<12.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	12.5
2,4-dinitrotoluene	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
Diphenylhydrazine	*ERL	<12.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	12.5
Hexachlorobutadiene	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
Hexachlorocyclopentadiene	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
Isophorone	*ERL	<12.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	12.5
Nitrobenzene	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
2,4-dinitro-o-cresol	*ERL	<12.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	12.5
2,4-dinitrophenols	*ERL	<12.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	12.5
n-nitrosodiethylamine	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
N-nitrosodimethylamine	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
N-nitrosodinbutylamine	*ERL	<12.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	12.5
N-nitrosodiphenylamine	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
N-nitrosopyrrolidine	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
Pentachlorophenol	*ERL	<12.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	12.5
Dibutyl phthalate	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
di-2-ethylhexyl phthalate	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
Diethyl phthalate	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
Dimethyl phthalate	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
Anthracene	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
3,4-Benzofluoranthene	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
Benzo(k)fluoranthene	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
Fluoranthene	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
Fluorene	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
Phenanthrene	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5

*ERL-elevated reporting limit due to hydrocarbons present.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99

Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 10 (3-5) Sample Number: 120210

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Pyrene	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
Naphthalene	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
1-methylnaphthalene	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
2-methylnaphthalene	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
Benzo-a-pyrene	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
Phenol	*ERL	<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
Surr. 2-Fluorophenol		33	%	8270C	03/04/99	03/07/99	MA	0057	0049	25-121
Surr. Phenol-d6		36	%	8270C	03/04/99	03/07/99	MA	0057	0049	24-113
Surr. Nitrobenzene-d5		38	%	8270C	03/04/99	03/07/99	MA	0057	0049	23-120
Surr. 2-Fluorobiphenyl		44	%	8270C	03/04/99	03/07/99	MA	0057	0049	30-115
Surr. 2,4,6-Tribromophenol		29	%	8270C	03/04/99	03/07/99	MA	0057	0049	19-122
Surr. Terphenyl-d14		43	%	8270C	03/04/99	03/07/99	MA	0057	0049	28-137

*ERL-elevated reporting limit due to hydrocarbons present.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99

Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 10 (63-65) Sample Number: 120211

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Hexachloroethane		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
bis (2-chloroethyl) ether		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Isophorone		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
Nitrobenzene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
N-nitrosodinbutylamine		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Anthracene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Fluoranthene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Fluorene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Phenanthrene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99

Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 10 (63-65) Sample Number: 120211

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Pyrene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Naphthalene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Phenol		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Surr. 2-Fluorophenol		51	%	8270C	03/04/99	03/07/99	MA	0057	0050	25-121
Surr. Phenol-d6		55	%	8270C	03/04/99	03/07/99	MA	0057	0050	24-113
Surr. Nitrobenzene-d5		56	%	8270C	03/04/99	03/07/99	MA	0057	0050	23-120
Surr. 2-Fluorobiphenyl		56	%	8270C	03/04/99	03/07/99	MA	0057	0050	30-115
Surr. 2,4,6-Tribromophenol		58	%	8270C	03/04/99	03/07/99	MA	0057	0050	19-122
Surr. Terphenyl-d14		75	%	8270C	03/04/99	03/07/99	MA	0057	0050	28-137

Analytical Results Report

[redacted]ff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99
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Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 10 (63-65D) Sample Number: 120212

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Hexachloroethane		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
bis (2-chloroethyl) ether		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
[redacted](chloromethyl) ether		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
[redacted]-dichlorobenzidine		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Isophorone		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Nitrobenzene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
N-nitrosodinbutylamine		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Anthracene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Fluoranthene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Fluorene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
[redacted]enanthrene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25

Analytical Results Report

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1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99
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Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 10 (63-65D) Sample Number: 120212

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Pyrene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Naphthalene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Phenol		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Surr. 2-Fluorophenol		36	%	8270C	03/04/99	03/07/99	MA	0057	0049	25-121
Surr. Phenol-d6		41	%	8270C	03/04/99	03/07/99	MA	0057	0049	24-113
Surr. Nitrobenzene-d5		38	%	8270C	03/04/99	03/07/99	MA	0057	0049	23-120
[redacted]. 2-Fluorobiphenyl		46	%	8270C	03/04/99	03/07/99	MA	0057	0049	30-115
[redacted]. 2,4,6-Tribromophenol		56	%	8270C	03/04/99	03/07/99	MA	0057	0049	19-122
Surr. Terphenyl-d14		92	%	8270C	03/04/99	03/07/99	MA	0057	0049	28-137

Analytical Results Report

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Date: 3/11/99
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Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB 9 (2-3) Sample Number: 120213

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Pyrene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Naphthalene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Phenol		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Surr. 2-Fluorophenol		50	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	25-121
Surr. Phenol-d6		54	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	24-113
Surr. Nitrobenzene-d5		53	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	23-120
[redacted]rr. 2-Fluorobiphenyl		57	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	30-115
[redacted]rr. 2,4,6-Tribromophenol		57	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	19-122
Surr. Terphenyl-d14		76	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	28-137

Analytical Results Report

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1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99
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Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB 9 (3-5) Sample Number: 120214

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Hexachloroethane		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
bis (2-chloroethyl) ether		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
[redacted](chloromethyl) ether		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
[redacted]dichlorobenzidine		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Isophorone		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Nitrobenzene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Anthracene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Fluoranthene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Fluorene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
[redacted]enanthrene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25

Analytical Results Report

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B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99
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Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB 9 (3-5) Sample Number: 120214

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Pyrene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Naphthalene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Phenol		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
Surr. 2-Fluorophenol		60	%	8270C	03/04/99	03/07/99	MA	0057	0049	25-121
Surr. Phenol-d6		67	%	8270C	03/04/99	03/07/99	MA	0057	0049	24-113
Surr. Nitrobenzene-d5		60	%	8270C	03/04/99	03/07/99	MA	0057	0049	23-120
Surr. 2-Fluorobiphenyl		63	%	8270C	03/04/99	03/07/99	MA	0057	0049	30-115
[redacted]urr. 2,4,6-Tribromophenol		54	%	8270C	03/04/99	03/07/99	MA	0057	0049	19-122
[redacted]urr. Terphenyl-d14		86	%	8270C	03/04/99	03/07/99	MA	0057	0049	28-137

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99

Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB 9 (18-20) Sample Number: 120215

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Hexachloroethane		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
bis (2-chloroethyl) ether		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Isophorone		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
Nitrobenzene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Anthracene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Fluoranthene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Fluorene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Phenanthrene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25

Analytical Results Report

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1324 W. Marland
Hobbs, NM 88240

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Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB 9 (18-20) Sample Number: 120215

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Pyrene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Naphthalene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Phenol		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Surr. 2-Fluorophenol		45	%	8270C	03/04/99	03/07/99	MA	0057	0050	25-121
Surr. Phenol-d6		48	%	8270C	03/04/99	03/07/99	MA	0057	0050	24-113
Surr. Nitrobenzene-d5		49	%	8270C	03/04/99	03/07/99	MA	0057	0050	23-120
Surr. 2-Fluorobiphenyl		50	%	8270C	03/04/99	03/07/99	MA	0057	0050	30-115
Surr. 2,4,6-Tribromophenol		54	%	8270C	03/04/99	03/07/99	MA	0057	0050	19-122
Surr. Terphenyl-d14		71	%	8270C	03/04/99	03/07/99	MA	0057	0050	28-137

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99

Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB 9 (48-50) Sample Number: 120216

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Hexachloroethane		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
bis (2-chloroethyl) ether		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Isophorone		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
Nitrobenzene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Anthracene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Fluoranthene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Fluorene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Phenanthrene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99

Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB 9 (48-50) Sample Number: 120216

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Pyrene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Naphthalene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Phenol		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0050	0.25
Surr. 2-Fluorophenol		52	%	8270C	03/04/99	03/07/99	MA	0057	0050	25-121
Surr. Phenol-d6		56	%	8270C	03/04/99	03/07/99	MA	0057	0050	24-113
Surr. Nitrobenzene-d5		55	%	8270C	03/04/99	03/07/99	MA	0057	0050	23-120
Surr. 2-Fluorobiphenyl		58	%	8270C	03/04/99	03/07/99	MA	0057	0050	30-115
Surr. 2,4,6-Tribromophenol		55	%	8270C	03/04/99	03/07/99	MA	0057	0050	19-122
Surr. Terphenyl-d14		77	%	8270C	03/04/99	03/07/99	MA	0057	0050	28-137

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99

Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GSB 9 (2-3) Sample Number: 120217

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	*ERL	<12.5	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	12.5
Hexachlorobenzene	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Pentachlorobenzene	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
1,2,4,5-tetrachlorobenzene	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Hexachloroethane	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2,4-dichlorphenol	*ERL	<6.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	6.25
2,4,5-trichlorophenol	*ERL	<6.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	6.25
2,4,6-trichlorophenol	*ERL	<6.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	6.25
bis (2-chloroethyl) ether	*ERL	<6.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	6.25
bis (2-chloroisopropyl) ether	*ERL	<6.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	6.25
bis (chloromethyl) ether	*ERL	<6.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	6.25
3,3-dichlorobenzidine	*ERL	<6.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	6.25
2,4-dinitrotoluene	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Diphenylhydrazine	*ERL	<6.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	6.25
Hexachlorobutadiene	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Hexachlorocyclopentadiene	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Isophorone	*ERL	<6.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	6.25
Nitrobenzene	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2,4-dinitro-o-cresol	*ERL	<6.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	6.25
2,4-dinitrophenols	*ERL	<6.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	6.25
n-nitrosodiethylamine	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
N-nitrosodimethylamine	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
N-nitrosodibutylamine	*ERL	<6.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	6.25
N-nitrosodiphenylamine	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
N-nitrosopyrrolidine	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Pentachlorophenol	*ERL	<6.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	6.25
Dibutyl phthalate	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
di-2-ethylhexyl phthalate	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Diethyl phthalate	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Dimethyl phthalate	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Anthracene	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
3,4-Benzofluoranthene	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Benzo(k)fluoranthene	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Fluoranthene	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Fluorene	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Phenanthrene	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25

*ERL-elevated reporting limit due to hydrocarbons present.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99
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Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GSB 9 (2-3) Sample Number: 120217

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Pyrene	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Naphthalene	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
1-methylnaphthalene	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2-methylnaphthalene	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Benzo-a-pyrene	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Phenol	*ERL	<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Surr. 2-Fluorophenol		50	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	25-121
Surr. Phenol-d6		55	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	24-113
Surr. Nitrobenzene-d5		58	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	23-120
Surr. 2-Fluorobiphenyl		67	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	30-115
Surr. 2,4,6-Tribromophenol		43	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	19-122
Surr. Terphenyl-d14		68	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	28-137

*ERL-elevated reporting limit due to hydrocarbons present.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99
Page: #18

Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GSB 10 (2-3) Sample Number: 120218

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	*ERL	<7.5	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	7.5
Hexachlorobenzene	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
Pentachlorobenzene	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
1,2,4,5-tetrachlorobenzene	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
Hexachloroethane	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
2,4-dichlorphenol	*ERL	<3.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	3.75
2,4,5-trichlorophenol	*ERL	<3.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	3.75
2,4,6-trichlorophenol	*ERL	<3.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	3.75
bis (2-chloroethyl) ether	*ERL	<3.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	3.75
bis (2-chloroisopropyl) ether	*ERL	<3.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	3.75
bis (chloromethyl) ether	*ERL	<3.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	3.75
3,3-dichlorobenzidine	*ERL	<3.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	3.75
2,4-dinitrotoluene	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
Diphenylhydrazine	*ERL	<3.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	3.75
Hexachlorobutadiene	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
Hexachlorocyclopentadiene	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
Isophorone	*ERL	<3.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	3.75
Nitrobenzene	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
2,4-dinitro-o-cresol	*ERL	<3.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	3.75
2,4-dinitrophenols	*ERL	<3.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	3.75
n-nitrosodiethylamine	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
N-nitrosodimethylamine	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
N-nitrosodibutylamine	*ERL	<3.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	3.75
N-nitrosodiphenylamine	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
N-nitrosopyrrolidine	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
Pentachlorophenol	*ERL	<3.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	3.75
Dibutyl phthalate	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
di-2-ethylhexyl phthalate	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
Diethyl phthalate	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
Dimethyl phthalate	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
Anthracene	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
3,4-Benzofluoranthene	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
Benzo(k)fluoranthene	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
Fluoranthene	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
Fluorene	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
Phenanthrene	*ERL	1.5	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75

*ERL-elevated reporting limit due to hydrocarbons present.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99
Page: #19

Order ID Number: 990300068
Project Name: *Shell Westgate*
Project Location: Hobbs, NM

Field Code: GSB 10 (2-3) Sample Number: 120218

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Pyrene	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
Naphthalene	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
1-methylnaphthalene	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
2-methylnaphthalene	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
Benzo-a-pyrene	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
Phenol	*ERL	<0.75	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.75
Surr. 2-Fluorophenol		75	%	8270C	3/4/99	3/7/99	MA	0057	0049	25-121
Surr. Phenol-d6		85	%	8270C	3/4/99	3/7/99	MA	0057	0049	24-113
Surr. Nitrobenzene-d5		75	%	8270C	3/4/99	3/7/99	MA	0057	0049	23-120
Surr. 2-Fluorobiphenyl		82	%	8270C	3/4/99	3/7/99	MA	0057	0049	30-115
Surr. 2,4,6-Tribromophenol		76	%	8270C	3/4/99	3/7/99	MA	0057	0049	19-122
Surr. Terphenyl-d14		78	%	8270C	3/4/99	3/7/99	MA	0057	0049	28-137

*ERL-elevated reporting limit due to hydrocarbons present.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99
Page: #20

Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 9 (8-10) Sample Number: 120219

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Hexachloroethane		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
bis (2-chloroethyl) ether		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Isophorone		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Nitrobenzene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Anthracene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Fluoranthene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Fluorene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Phenanthrene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99
Page: #21

Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 9 (8-10) Sample Number: 120219

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Pyrene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Naphthalene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Phenol		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Surr. 2-Fluorophenol		34	%	8270C	3/4/99	3/7/99	MA	0057	0049	25-121
Surr. Phenol-d6		38	%	8270C	3/4/99	3/7/99	MA	0057	0049	24-113
Surr. Nitrobenzene-d5		38	%	8270C	3/4/99	3/7/99	MA	0057	0049	23-120
Surr. 2-Fluorobiphenyl		41	%	8270C	3/4/99	3/7/99	MA	0057	0049	30-115
Surr. 2,4,6-Tribromophenol		57	%	8270C	3/4/99	3/7/99	MA	0057	0049	19-122
Surr. Terphenyl-d14		61	%	8270C	3/4/99	3/7/99	MA	0057	0049	28-137

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99
Page: #22

Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 9 (63-65) Sample Number: 120220

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Hexachloroethane		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
bis (2-chloroethyl) ether		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Isophorone		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Nitrobenzene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Anthracene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Fluoranthene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Fluorene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Phenanthrene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99

Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 9 (63-65) Sample Number: 120220

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Pyrene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Naphthalene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Phenol		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
Surr. 2-Fluorophenol		39	%	8270C	3/4/99	3/7/99	MA	0057	0049	25-121
Surr. Phenol-d6		45	%	8270C	3/4/99	3/7/99	MA	0057	0049	24-113
Surr. Nitrobenzene-d5		42	%	8270C	3/4/99	3/7/99	MA	0057	0049	23-120
Surr. 2-Fluorobiphenyl		54	%	8270C	3/4/99	3/7/99	MA	0057	0049	30-115
Surr. 2,4,6-Tribromophenol		52	%	8270C	3/4/99	3/7/99	MA	0057	0049	19-122
Surr. Terphenyl-d14		82	%	8270C	3/4/99	3/7/99	MA	0057	0049	28-137

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99
Page: #24

Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 9 (63-65D) Sample Number: 120221

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	*ERL	<12.5	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	12.5
Hexachlorobenzene	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Pentachlorobenzene	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
1,2,4,5-tetrachlorobenzene	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Hexachloroethane	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
2,4-dichlorphenol	*ERL	<6.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	6.25
2,4,5-trichlorophenol	*ERL	<6.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	6.25
2,4,6-trichlorophenol	*ERL	<6.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	6.25
bis (2-chloroethyl) ether	*ERL	<6.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	6.25
bis (2-chloroisopropyl) ether	*ERL	<6.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	6.25
bis (chloromethyl) ether	*ERL	<6.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	6.25
3,3-dichlorobenzidine	*ERL	<6.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	6.25
2,4-dinitrotoluene	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Diphenylhydrazine	*ERL	<6.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	6.25
Hexachlorobutadiene	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Hexachlorocyclopentadiene	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Isophorone	*ERL	<6.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	6.25
Nitrobenzene	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
2,4-dinitro-o-cresol	*ERL	<6.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	6.25
2,4-dinitrophenols	*ERL	<6.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	6.25
n-nitrosodiethylamine	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
N-nitrosodimethylamine	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
N-nitrosodibutylamine	*ERL	<6.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	6.25
N-nitrosodiphenylamine	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
N-nitrosopyrrolidine	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Pentachlorophenol	*ERL	<6.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	6.25
Dibutyl phthalate	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
di-2-ethylhexyl phthalate	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Diethyl phthalate	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Dimethyl phthalate	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Anthracene	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
3,4-Benzofluoranthene	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Benzo(k)fluoranthene	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Fluoranthene	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Fluorene	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Phenanthrene	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25

*ERL-elevated reporting limit due to hydrocarbons present.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99
Page: #25

Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 9 (63-65D) Sample Number: 120221

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Pyrene	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Naphthalene	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
1-methylnaphthalene		1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
2-methylnaphthalene	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Benzo-a-pyrene	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Phenol	*ERL	<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Surr. 2-Fluorophenol		51	%	8270C	3/4/99	3/7/99	MA	0057	0049	25-121
Surr. Phenol-d6		70	%	8270C	3/4/99	3/7/99	MA	0057	0049	24-113
Surr. Nitrobenzene-d5		76	%	8270C	3/4/99	3/7/99	MA	0057	0049	23-120
Surr. 2-Fluorobiphenyl		83	%	8270C	3/4/99	3/7/99	MA	0057	0049	30-115
Surr. 2,4,6-Tribromophenol		43	%	8270C	3/4/99	3/7/99	MA	0057	0049	19-122
Surr. Terphenyl-d14		79	%	8270C	3/4/99	3/7/99	MA	0057	0049	28-137

*ERL-elevated reporting limit due to hydrocarbons present.

Quality Control Report
Blanks

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99
Page: #26

Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Benzidine		<2.5	mg/kg	2.5	3/7/99	0057	0049
Hexachlorobenzene		<0.25	mg/kg	0.25	3/7/99	0057	0049
Pentachlorobenzene		<0.25	mg/kg	0.25	3/7/99	0057	0049
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	3/7/99	0057	0049
Hexachloroethane		<0.25	mg/kg	0.25	3/7/99	0057	0049
2,4-dichlorphenol		<1.25	mg/kg	1.25	3/7/99	0057	0049
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	3/7/99	0057	0049
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	3/7/99	0057	0049
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	3/7/99	0057	0049
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	3/7/99	0057	0049
[illegible](chloromethyl) ether		<1.25	mg/kg	1.25	3/7/99	0057	0049
[illegible]dichlorobenzidine		<1.25	mg/kg	1.25	3/7/99	0057	0049
2,4-dinitrotoluene		<0.25	mg/kg	0.25	3/7/99	0057	0049
Diphenylhydrazine		<1.25	mg/kg	1.25	3/7/99	0057	0049
Hexachlorobutadiene		<0.25	mg/kg	0.25	3/7/99	0057	0049
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	3/7/99	0057	0049
Isophorone		<1.25	mg/kg	1.25	3/7/99	0057	0049
Nitrobenzene		<0.25	mg/kg	0.25	3/7/99	0057	0049
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	3/7/99	0057	0049
2,4-dinitrophenols		<1.25	mg/kg	1.25	3/7/99	0057	0049
n-nitrosodiethylamine		<0.25	mg/kg	0.25	3/7/99	0057	0049
N-nitrosodimethylamine		<0.25	mg/kg	0.25	3/7/99	0057	0049
N-nitrosodibutylamine		<1.25	mg/kg	1.25	3/7/99	0057	0049
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	3/7/99	0057	0049
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	3/7/99	0057	0049
Pentachlorophenol		<1.25	mg/kg	1.25	3/7/99	0057	0049
Dibutyl phthalate		<0.25	mg/kg	0.25	3/7/99	0057	0049
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	3/7/99	0057	0049
Diethyl phthalate		<0.25	mg/kg	0.25	3/7/99	0057	0049
Dimethyl phthalate		<0.25	mg/kg	0.25	3/7/99	0057	0049
Anthracene		<0.25	mg/kg	0.25	3/7/99	0057	0049
3,4-Benzofluoranthene		<0.25	mg/kg	0.25	3/7/99	0057	0049
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	3/7/99	0057	0049
[illegible]oranthene		<0.25	mg/kg	0.25	3/7/99	0057	0049
[illegible]rene		<0.25	mg/kg	0.25	3/7/99	0057	0049

Quality Control Report
Blanks

Order ID Number: 990300068 Page: #27

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Phenanthrene		<0.25	mg/kg	0.25	3/7/99	0057	0049
Pyrene		<0.25	mg/kg	0.25	3/7/99	0057	0049
Naphthalene		<0.25	mg/kg	0.25	3/7/99	0057	0049
1-methylnaphthalene		<0.25	mg/kg	0.25	3/7/99	0057	0049
2-methylnaphthalene		<0.25	mg/kg	0.25	3/7/99	0057	0049
Benzo-a-pyrene		<0.25	mg/kg	0.25	3/7/99	0057	0049
Phenol		<0.25	mg/kg	0.25	3/7/99	0057	0049
Surr. 2-Fluorophenol		74	%	25-121	3/7/99	0057	0049
Surr. Phenol-d6		81	%	24-113	3/7/99	0057	0049
Surr. Nitrobenzene-d5		67	%	23-120	3/7/99	0057	0049
Surr. 2-Fluorobiphenyl		71	%	30-115	3/7/99	0057	0049
Surr. 2,4,6-Tribromophenol		63	%	19-122	3/7/99	0057	0049
Surr. Terphenyl-d14		96	%	28-137	3/7/99	0057	0049
Benzidine		<2.5	mg/kg	2.5	3/7/99	0057	0050
Hexachlorobenzene		<0.25	mg/kg	0.25	3/7/99	0057	0050
Pentachlorobenzene		<0.25	mg/kg	0.25	3/7/99	0057	0050
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	3/7/99	0057	0050
Hexachloroethane		<0.25	mg/kg	0.25	3/7/99	0057	0050
2,4-dichlorphenol		<1.25	mg/kg	1.25	3/7/99	0057	0050
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	3/7/99	0057	0050
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	3/7/99	0057	0050
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	3/7/99	0057	0050
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	3/7/99	0057	0050
bis (chloromethyl) ether		<1.25	mg/kg	1.25	3/7/99	0057	0050
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	3/7/99	0057	0050
2,4-dinitrotoluene		<0.25	mg/kg	0.25	3/7/99	0057	0050
Diphenylhydrazine		<1.25	mg/kg	1.25	3/7/99	0057	0050
Hexachlorobutadiene		<0.25	mg/kg	0.25	3/7/99	0057	0050
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	3/7/99	0057	0050
Isophorone		<1.25	mg/kg	1.25	3/7/99	0057	0050
Nitrobenzene		<0.25	mg/kg	0.25	3/7/99	0057	0050
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	3/7/99	0057	0050
2,4-dinitrophenols		<1.25	mg/kg	1.25	3/7/99	0057	0050
n-nitrosodiethylamine		<0.25	mg/kg	0.25	3/7/99	0057	0050
N-nitrosodimethylamine		<0.25	mg/kg	0.25	3/7/99	0057	0050
N-nitrosodibutylamine		<1.25	mg/kg	1.25	3/7/99	0057	0050
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	3/7/99	0057	0050
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	3/7/99	0057	0050
Pentachlorophenol		<1.25	mg/kg	1.25	3/7/99	0057	0050
Dibutyl phthalate		<0.25	mg/kg	0.25	3/7/99	0057	0050
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	3/7/99	0057	0050
Diethyl phthalate		<0.25	mg/kg	0.25	3/7/99	0057	0050
Dimethyl phthalate		<0.25	mg/kg	0.25	3/7/99	0057	0050
Anthracene		<0.25	mg/kg	0.25	3/7/99	0057	0050
3,4-Benzofluoranthene		<0.25	mg/kg	0.25	3/7/99	0057	0050

Quality Control Report
Blanks

Order ID Number: 990300068 Date: 3/11/99
Project Name: Shell Westgate Page: #28
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	3/7/99	0057	0050
Fluoranthene		<0.25	mg/kg	0.25	3/7/99	0057	0050
Fluorene		<0.25	mg/kg	0.25	3/7/99	0057	0050
Phenanthrene		<0.25	mg/kg	0.25	3/7/99	0057	0050
Pyrene		<0.25	mg/kg	0.25	3/7/99	0057	0050
Naphthalene		<0.25	mg/kg	0.25	3/7/99	0057	0050
1-methylnaphthalene		<0.25	mg/kg	0.25	3/7/99	0057	0050
2-methylnaphthalene		<0.25	mg/kg	0.25	3/7/99	0057	0050
Benzo-a-pyrene		<0.25	mg/kg	0.25	3/7/99	0057	0050
Phenol		<0.25	mg/kg	0.25	3/7/99	0057	0050
Surr. 2-Fluorophenol		64	%	25-121	3/7/99	0057	0050
Surr. Phenol-d6		70	%	24-113	3/7/99	0057	0050
Surr. Nitrobenzene-d5		66	%	23-120	3/7/99	0057	0050
Surr. 2-Fluorobiphenyl		71	%	30-115	3/7/99	0057	0050
Surr. 2,4,6-Tribromophenol		66	%	19-122	3/7/99	0057	0050
Surr. Terphenyl-d14		83	%	28-137	3/7/99	0057	0050

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99

Order ID Number: 990300068
Project Name: Shell Westgate

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Phenol		80	mg/L	79	99	03/07/99	0049
1,4-Dichlorobenzene		80	mg/L	72	90	03/07/99	0049
2-nitrophenol		80	mg/L	89	111	03/07/99	0049
2,4-Dichlorophenol		80	mg/L	88	110	03/07/99	0049
Hexachlorobutadiene		80	mg/L	70	88	03/07/99	0049
4-Chloro-3-methylphenol		80	mg/L	87	109	03/07/99	0049
2,4,6-Trichlorophenol		80	mg/L	87	109	03/07/99	0049
Acenaphthene		80	mg/L	72	90	03/07/99	0049
n-Nitrosodiphenylamine		80	mg/L	76	95	03/07/99	0049
Pentachlorophenol		80	mg/L	80	100	03/07/99	0049
Fluoranthene		80	mg/L	67	84	03/07/99	0049
Di-n-octylphthalate		80	mg/L	85	106	03/07/99	0049
[illegible]zo(a)pyrene		80	mg/L	77	96	03/07/99	0049
[illegible]rr. 2-Fluorophenol		80	%	86	108	03/07/99	0049
Surr. Phenol-d6		80	%	87	109	03/07/99	0049
Surr. Nitroobenzene-d5		80	%	76	95	03/07/99	0049
Surr. 2-Fluorobiphenyl		80	%	75	94	03/07/99	0049
Surr. 2,4,6-Tribromophenol		80	%	79	99	03/07/99	0049
Surr. Terphenyl-d14		80	%	73	91	03/07/99	0049
Phenol		80	mg/L	74	93	03/07/99	0050
1,4-Dichlorobenzene		80	mg/L	74	93	03/07/99	0050
2-nitrophenol		80	mg/L	80	100	03/07/99	0050
2,4-Dichlorophenol		80	mg/L	79	99	03/07/99	0050
Hexachlorobutadiene		80	mg/L	76	95	03/07/99	0050
4-Chloro-3-methylphenol		80	mg/L	78	98	03/07/99	0050
2,4,6-Trichlorophenol		80	mg/L	78	98	03/07/99	0050
Acenaphthene		80	mg/L	73	91	03/07/99	0050
n-Nitrosodiphenylamine		80	mg/L	76	95	03/07/99	0050
Pentachlorophenol		80	mg/L	86	108	03/07/99	0050
Fluoranthene		80	mg/L	78	98	03/07/99	0050
Di-n-octylphthalate		80	mg/L	82	103	03/07/99	0050
Benzo(a)pyrene		80	mg/L	78	98	03/07/99	0050
Surr. 2-Fluorophenol		80	%	74	93	03/07/99	0050
Surr. Phenol-d6		80	%	74	93	03/07/99	0050
Surr. Nitroobenzene-d5		80	%	78	98	03/07/99	0050
Surr. 2-Fluorobiphenyl		80	%	73	91	03/07/99	0050
Surr. 2,4,6-Tribromophenol		80	%	78	98	03/07/99	0050
[illegible]. Terphenyl-d14		80	%	75	94	03/07/99	0050

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99

Order ID Number: 990300068
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Phenol		mg/kg	<0.25	100	66	66	100	63	63	5	03/07/99	0057	0049
2-Chlorophenol		mg/kg	<1.25	100	67	67	100	62	62	8	03/07/99	0057	0049
1,4-Dichlorobenzene		mg/kg	<0.25	100	59	59	100	53	53	11	03/07/99	0057	0049
n-Nitrosodi-n-propylamine		mg/kg	<0.25	100	60	60	100	57	57	5	03/07/99	0057	0049
1,2,4-trichlorobenzene		mg/kg	<0.25	100	63	63	100	58	58	8	03/07/99	0057	0049
4-Chloro-3-methylphenol		mg/kg	<1.25	100	81	81	100	89	89	9	03/07/99	0057	0049
Acenaphthene		mg/kg	<0.25	100	76	76	100	75	75	1	03/07/99	0057	0049
4-Nitrophenol		mg/kg	<1.25	100	122	122	100	124	124	2	03/07/99	0057	0049
2,4-Dinitrotoluene		mg/kg	<0.25	100	89	89	100	100	100	12	03/07/99	0057	0049
Pentachlorophenol		mg/kg	<1.25	100	56	56	100	66	66	16	03/07/99	0057	0049
[illegible]ene		mg/kg	<0.25	100	79	79	100	81	81	3	03/07/99	0057	0049
[illegible]r. 2-Fluorophenol		%	36	100	67	67	100	60	60	11	03/07/99	0057	0049
Surr. Phenol-d6		%	41	100	70	70	100	67	67	4	03/07/99	0057	0049
Surr. Nitrobenzene-d5		%	38	100	65	65	100	59	59	10	03/07/99	0057	0049
Surr. 2-Fluorobiphenyl		%	46	100	71	71	100	66	66	7	03/07/99	0057	0049
Surr. 2,4,6-Tribromophenol		%	56	100	81	81	100	91	91	12	03/07/99	0057	0049
Surr. Terphenyl-d14		%	92	100	78	78	100	78	78	0	03/07/99	0057	0049

120210-21

6701 Aberdeen Ave., Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

5725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 68

Company Name: BBC International, Inc
Phone #: (505)397-6388

Address: (Street, City, Zip) 1324 W. Marland, Hobbs, N.M. 88240
Fax #: (505)397-0397

Contact Person: Cliff P. Brunson

Invoice to: (If different from above)

Project #:
Project Name: Shell Westgate

Project Location: Hobbs, NM
Sampler Signature: Daniel A. Williams

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
120210	GMW10 (2-3)	2	4oz		X					X		3-3-99	8:50am
11	GMW10 (63-65)	2	4oz		X					X		3-3-99	9:58am
12	GMW10 (63 65D)	2	4oz		X					X		3-3-99	9:58am
13	TSB9 (2-3)	2	4oz		X					X		3-3-99	9:32 am
14	TSB9 (3-5)	2	4oz		X					X		3-3-99	9:37 am
15	TSB9 (18-20)	2	4oz		X					X		3-3-99	10:53 am
16	TSB9 (48-50)	2	4oz		X					X		3-3-99	12:13 pm
17	GSB9 (2-3)	2	4oz		X					X		3-3-99	4:09 pm
18	GSB10 (2-3)	2	4oz		X					X		3-3-99	4:47 pm

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH						Turn Around Time if different from standard	Hold
											X										
											X										
											X										
											X										
											X										
											X										
											X										
											X										
											X										
											X										

Relinquished by: Daniel A. Williams Date: 3-3-99 Time: 5:00pm
Received by: Date: Time:

Relinquished by: Date: Time:
Received by: Date: Time:

Relinquished by: Daniel A. Williams Date: 3-4-99 Time: 10:00am
Received at Laboratory by: Vicki Wooten Date: 3-4-99 Time: 10:00am

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

LAB USE ONLY

Intact (Y) N
Headspace Y / N
Temp 4 °
Log-in Review MS

Carrier # Courier

REMARKS:

Confirmation

Attn: Mark

need by monday 3-8-99

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 68

Company Name: BBC International, Inc. Phone #: (505) 397-0388

Address: (Street, City, Zip) 1324 W. Marland, Hobbs, N.M. 88240 Fax #: (505) 397-0397

Contact Person: Cliff P. Brunson

Invoice to: (If different from above)

Project #: Project Name: Shell Westgate

Project Location: Hobbs, N.M. Sampler Signature: Daniel A. Williams

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
19	GMW9 (8-10)	2	4oz		X					X		3-3-99	1:56 pm
20	GMW9 (63-65)	2	4oz		X					X		3-3-99	3:20 pm
21	GMW9 (63-65D)	2	4oz		X					X		3-3-99	3:22 pm
	Field Blank	2	VOA	X				Y		X		3-3-99	
	Trip Blank	2	VOA	X								3-3-99	

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021B/602 | BTEX 8021B/602 | TPH 418.1/TX1005 | PAH 8270C | Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7 | TCLP Metals Ag As Ba Cd Cr Pb Se Hg | TCLP Volatiles | TCLP Semi Volatiles | TCLP Pesticides | RCI | GC-MS Vol. 8260B/624 | GC/MS Semi. Vol. 8270C/625 | PCB's 8082/608 | Pesticides 8081A/608 | BOD, TSS, pH | Turn Around Time if different from standard | Hold

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Daniel A. Williams	3-3-99	5:00 pm			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
Daniel A. Williams	3-4-99	10:00 am	Vicki Windham	3-4-99	10:00 am

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

LAB USE ONLY

Intact (Y) N
Headspace Y / N
Temp 4 °
Log-in Review MS

REMARKS:
Confirmation
Attn: Mark
need By monday 3-8-99

Carrier # Courier

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/12/99
Page: # 1

Project Name: Shell Westgate
Project Location: Hobbs, NM
Order ID Number: 9902000324

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
119264	GSB-18 (4-5)	Soil	02/18/99	10:56 a.m.	02/19/99

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

This report shall not be reproduced except in its entirety, without written approval of the laboratory.

These results represent only the samples received in the laboratory.

This report consists of a total of 6 pages.

Dr. Blair Leftwich
Director

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/12/99

Order ID Number: 9902000324
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GSB-18 (4-5) Sample Number: 119264

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzene		<25	ug/kg	S-8260B	02/23/99	02/23/99	JG		5745	25
Ethylbenzene		<25	ug/kg	S-8260B	02/23/99	02/23/99	JG		5745	25
Toluene		<25	ug/kg	S-8260B	02/23/99	02/23/99	JG		5745	25
m,p-xylene		<25	ug/kg	S-8260B	02/23/99	02/23/99	JG		5745	25
o-xylene		<25	ug/kg	S-8260B	02/23/99	02/23/99	JG		5745	25
Surr. Dibromofluoromethane		100	%	S-8260B	02/23/99	02/23/99	JG		5745	72-130
Surr. Toluene-d8		106	%	S-8260B	02/23/99	02/23/99	JG		5745	77-127
Surr. 4-Bromofluorobenzene		99	%	S-8260B	02/23/99	02/23/99	JG		5745	72-131
TRPHC		<10.0	mg/kg	418.1	2/23/99	2/23/99	MF	5571	5707	10

Quality Control Report
Blanks

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/12/99
Page #3

Order ID Number: 9902000324
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Benzene		<25	ug/kg	25	2/23/99		5745
Ethylbenzene		<25	ug/kg	25	2/23/99		5745
Toluene		<25	ug/kg	25	2/23/99		5745
m,p-xylene		<25	ug/kg	25	2/23/99		5745
o-xylene		<25	ug/kg	25	2/23/99		5745
Surr. Dibromofluoromethane		98	%	72-130	2/23/99		5745
Surr. Toluene-d8		105	%	77-127	2/23/99		5745
Surr. 4-Bromofluorobenzene		98	%	72-131	2/23/99		5745
TRPHC		<10	mg/kg	10	2/23/99	5571	5707

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Order ID Number: 9902000324
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	111	111	02/23/99	5745
1,1-Dichloroethene		100	ug/L	92	92	02/23/99	5745
Chloroform		100	ug/L	99	99	02/23/99	5745
1,2-Dichloropropane		100	ug/L	102	102	02/23/99	5745
Toluene		100	ug/L	101	101	02/23/99	5745
Chlorobenzene		100	ug/L	105	105	02/23/99	5745
Ethylbenzene		100	ug/L	106	106	02/23/99	5745
Surr. Dibromofluoromethane		100	%	96	96	02/23/99	5745
Surr. Toluene-d8		100	%	108	108	02/23/99	5745
Surr. 4-Bromofluorobenzene		100	%	97	97	02/23/99	5745
TRPHC		100	mg/L	99	99	02/23/99	5707

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Order ID Number: 9902000324
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/kg	<25	100	86	86	100	85	85	1	2/23/99		5745
Benzene		ug/kg	<25	100	106	106	100	107	107	1	2/23/99		5745
Trichloroethene		ug/kg	<25	100	107	107	100	106	106	1	2/23/99		5745
Toluene		ug/kg	<25	100	105	105	100	107	107	2	2/23/99		5745
Chlorobenzene		ug/kg	<25	100	108	108	100	108	108	0	2/23/99		5745
Surr. Dibromofluoromethane		%	98	100	101	101	100	102	102	1	2/23/99		5745
Surr. Toluene-d8		%	105	100	109	109	100	107	107	2	2/23/99		5745
Surr. 4-Bromofluorobenzene		%	98	100	100	100	100	100	100	0	2/23/99		5745
TRPHC	*	mg/kg	<10	250	245	98	250	244	98	0	2/23/99		5707

LCS's used for spike and spike duplicate.

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
BBC International Inc.
Attention Cliff Brunson
P.O. Box 297
Hobbs NM 88241

Date: Feb 24, 1999
Date Rec: 2/19/99
Project: N/A
Proj Name: Shell Westgate
Proj Loc: Hobbs,NM

Lab Receiving # : 9902000324
Sampling Date: 2/18/99
Sample Condition: Intact and Cool
Sample Received By: GA

TA#	Field Code	MATRIX	TRPHC (mg/Kg)
119264	GSB-18	Soil	<10.0
	Method Blank		<10.0
	Reporting Limit		10
	QC		99
	RPD		0
	% Extraction Accuracy		98
	% Instrument Accuracy		99

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/L)	SPIKE: (mg/Kg)
TRPH	EPA 3550	2/23/99	EPA 418.1	2/23/99	MF	100	250

Director, Dr. Blair Leftwich

2-24-99
Date

119263-64

Page 1 of 1

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 324

Company Name: BBC International, Inc.
Phone #: (505) 397-6388
Address: (Street, City, Zip) 1324 W. Marland, Hobbs, NM 88240
Fax #: (505) 397-0397
Contact Person: Cliff P. Brunson
Invoice to: (If different from above) Shell E & P Technology Co. ATTN: Wayne Hamilton
Project #:
Project Name: Shell Westgate
Project Location: Hobbs, New Mexico
Sampler Signature: Daniel A. Williams

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
119262	TSB-7a (2-3)	1	4oz		X					X			2/13/95	11:46 am
263	GBN-4 (6"-8")	1	4oz		X					X			2/18/95	10:17am
64	GSB-18 (4-5)	1	4oz		X					X			2/18/95	10:56am

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021B/602	BTEX ~~8020/602~~ 8260	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	See Attached (Full Suite)	Total Chlorides (300-1)	Total Metals (6010)	Billing Point Distribution	Turn Around Time if different from standard	Hold
		(X)															X	X		
	✓	✓																		

Relinquished by: Daniel A. Williams Date: Time:
Received by: Amy Adkins 2/14/95 10:30AM
Relinquished by: Date: Time:
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Date: Time:

LAB USE ONLY
Intact Y N
Headspace Y / N
Temp 5°C
Log-in Review

REMARKS:
Agreed Upon Turnaround

Carrier # FedEx 809135079729

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

TRACEANALYSIS, INC.

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E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/12/99
Page: # 1

Project Name: Shell Westgate
Project Location: Hobbs, NM
Order ID Number: 9902000261/262

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
119004	TMW 3 (2-3')	Soil	02/15/99	8:52 a.m.	02/16/99
119005	TMW-3 (3-5')	Soil	02/15/99	8:57 a.m.	02/16/99
119006	TMW-3 (23-25')	Soil	02/15/99	9:28 a.m.	02/16/99
119007	TMW-3 (63-65')	Soil	02/15/99	10:41 a.m.	02/16/99
119008	TSB 8 (2-3')	Soil	02/15/99	11:38 a.m.	02/16/99
119009	TSB 8 (8-10')	Soil	02/15/99	11:46 a.m.	02/16/99
119010	TSB 8 (40-42')	Soil	02/15/99	1:13 p.m.	02/16/99
119011	Trip Blank	Water	02/15/99		02/16/99
119012	Field Blank	Water	02/15/99		02/16/99

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.
This report shall not be reproduced except in its entirety, without written approval of the laboratory.
These results represent only the samples received in the laboratory.
This report consists of a total of 22 pages.

*Volatile 119005 methylene chloride due to laboratory contamination. Sample was rerun out of hold time and methylene chloride could not be confirmed.
*Semi-volatile 119008 elevated reporting limit due to hydrocarbons present.
*Surrogate out of control limits due to presence of coeluting ions.

Dr. Blair Leftwich
Director

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/12/99
Page # 2

Order ID Number: 9902000261/262
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TMW 3 (2-3') Sample Number: 119004

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<140	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	140
Acrylonitrile		<140	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	140
Benzene		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
Carbon tetrachloride		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
Chlorobenzene		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
1,2-dichloroethane		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
1,1,2,2-tetrachloroethane		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
1,1,1-trichloroethane		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
1,1,2-trichloroethane		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
1,1,2-trichloroethylene		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
Chloroform		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
Dichlorobenzene		<56	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	56
1,1-dichloroethylene		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
Dichloropropenes		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
Ethylbenzene		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
Bromodichloromethane		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
Bromomethane		<140	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	140
Chloromethane		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
Dichlorodifluoromethane		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
Dichloromethane		<140	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	140
Trichlorofluoromethane		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
Tetrachloroethylene		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
Toluene		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
Trichloroethylene		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
Vinyl chloride		<56	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	56
m,p-xylene		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
o-xylene		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
1,1-dichloroethane		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
Ethylene dibromide		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
cis-1,2-dichlorethylene		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
trans-1,2-dichloroethylene		<28	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	28
Methylene chloride		<140	ug/kg	S-8260B	02/23/99	02/23/99	JG		5772	140
Surr. Dibromofluoromethane		95	%	S-8260B	02/23/99	02/23/99	JG		5772	72-130
Surr. Toluene-d8		105	%	S-8260B	02/23/99	02/23/99	JG		5772	77-127
Surr. 4-Bromofluorobenzene		96	%	S-8260B	02/23/99	02/23/99	JG		5772	72-131

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/12/99
Page #3

Order ID Number: 9902000261/262
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TMW-3 (3-5') Sample Number: 119005

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<125	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	125
Acrylonitrile		<125	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	125
Benzene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Carbon tetrachloride		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Chlorobenzene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
1,2-dichloroethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
1,1,2,2-tetrachloroethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
1,1,1-trichloroethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
1,1,2-trichloroethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
1,1,2-trichloroethylene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Chloroform		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Dichlorobenzene		<50	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	50
1,1-dichloroethylene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Dichloropropenes		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Ethylbenzene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Bromodichloromethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Bromomethane		<125	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	125
Chloromethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Dichlorodifluoromethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Dichloromethane	*	350	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	125
Trichlorofluoromethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Tetrachloroethylene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Toluene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Trichloroethylene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Vinyl chloride		<50	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	50
m,p-xylene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
o-xylene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
1,1-dichloroethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Ethylene dibromide		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
cis-1,2-dichlorethylene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
trans-1,2-dichloroethylene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Methylene chloride	*	350	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	125
Surr. Dibromofluoromethane		96	%	S-8260B	2/23/99	2/23/99	JG		5772	72-130
Surr. Toluene-d8		106	%	S-8260B	2/23/99	2/23/99	JG		5772	77-127
Surr. 4-Bromofluorobenzene		97	%	S-8260B	2/23/99	2/23/99	JG		5772	72-131

*Methylene chloride due to laboratory contamination. Sample was rerun out of hold time and methylene chloride could not be confirmed.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International. Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/12/99

Order ID Number: 9902000261/262
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TMW-3 (23-25') Sample Number: 119006

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<130	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	130
Acrylonitrile		<130	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	130
Benzene		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
Carbon tetrachloride		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
Chlorobenzene		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
1,2-dichloroethane		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
1,1,2,2-tetrachloroethane		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
1,1,1-trichloroethane		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
1,1,2-trichloroethane		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
1,1,2-trichloroethylene		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
Chloroform		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
Dichlorobenzene		<52	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	52
1,1-dichloroethylene		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
Dichloropropenes		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
Ethylbenzene		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
Bromodichloromethane		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
Bromomethane		<130	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	130
Chloromethane		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
Dichlorodifluoromethane		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
Dichloromethane		<130	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	130
Trichlorofluoromethane		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
Tetrachloroethylene		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
Toluene		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
Trichloroethylene		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
Vinyl chloride		<52	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	52
m,p-xylene		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
o-xylene		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
1,1-dichloroethane		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
Ethylene dibromide		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
cis-1,2-dichlorethylene		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
trans-1,2-dichloroethylene		<26	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	26
Methylene chloride		<130	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	130
Surr. Dibromofluoromethane		97	%	S-8260B	2/23/99	2/23/99	JG		5772	72-130
Surr. Toluene-d8		105	%	S-8260B	2/23/99	2/23/99	JG		5772	77-127
Surr. 4-Bromofluorobenzene		94	%	S-8260B	2/23/99	2/23/99	JG		5772	72-131

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/12/99
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Order ID Number: 9902000261/262
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TMW-3 (63-65')

Sample Number: 119007

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<125	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	125
Acrylonitrile		<125	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	125
Benzene		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Carbon tetrachloride		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Chlorobenzene		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
1,2-dichloroethane		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
1,1,2,2-tetrachloroethane		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
1,1,1-trichloroethane		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
1,1,2-trichloroethane		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
1,1,2-trichloroethylene		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Chloroform		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Dichlorobenzene		<50	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	50
1,1-dichloroethylene		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Dichloropropenes		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Ethylbenzene		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Bromodichloromethane		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Bromomethane		<125	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	125
Chloromethane		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Dichlorodifluoromethane		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Dichloromethane		<125	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	125
Trichlorofluoromethane		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Tetrachloroethylene		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Toluene		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Trichloroethylene		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Vinyl chloride		<50	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	50
m,p-xylene		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
o-xylene		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
1,1-dichloroethane		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Ethylene dibromide		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
cis-1,2-dichlorethylene		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
trans-1,2-dichloroethylene		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Methylene chloride		<125	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	125
Surr. Dibromofluoromethane		99	%	S-8260B	2/27/99	2/27/99	JG		5773	72-130
Surr. Toluene-d8		109	%	S-8260B	2/27/99	2/27/99	JG		5773	77-127
Surr. 4-Bromofluorobenzene		95	%	S-8260B	2/27/99	2/27/99	JG		5773	72-131

Analytical Results Report

Cliff P. Brunson.
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1324 W. Marland
Hobbs, NM 88240

Order ID Number: 9902000261/262
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB 8 (2-3') Sample Number: 119008

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	*ERL	<62.5	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	62.5
Hexachlorobenzene	*ERL	<6.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
Pentachlorobenzene	*ERL	<6.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
1,2,4,5-tetrachlorobenzene	*ERL	<6.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
Hexachloroethane	*ERL	<6.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
2,4-dichlorphenol	*ERL	<31.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	31.25
2,4,5-trichlorophenol	*ERL	<31.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	31.25
2,4,6-trichlorophenol	*ERL	<31.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	31.25
bis (2-chloroethyl) ether	*ERL	<31.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	31.25
bis (2-chloroisopropyl) ether	*ERL	<31.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	31.25
bis (chloromethyl) ether	*ERL	<31.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	31.25
3,3-dichlorobenzidine	*ERL	<31.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	31.25
2,4-dinitrotoluene	*ERL	<6.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
Diphenylhydrazine	*ERL	<31.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	31.25
Hexachlorobutadiene	*ERL	<6.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
Hexachlorocyclopentadiene	*ERL	<6.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
Isophorone	*ERL	<31.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	31.25
Nitrobenzene	*ERL	<6.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
2,4-dinitro-o-cresol	*ERL	<31.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	31.25
2,4-dinitrophenols	*ERL	<31.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	31.25
n-nitrosodiethylamine	*ERL	<6.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
N-nitrosodimethylamine	*ERL	<6.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
N-nitrosodibutylamine	*ERL	<31.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	31.25
N-nitrosodiphenylamine	*ERL	<6.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
N-nitrosopyrrolidine	*ERL	<6.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
Pentachlorophenol	*ERL	<31.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	31.25
Dibutyl phthalate	*ERL	<6.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
di-2-ethylhexyl phthalate	*ERL	<6.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
Diethyl phthalate	*ERL	<6.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
Dimethyl phthalate	*ERL	<6.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
Anthracene	*ERL	<6.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
3,4-Benzofluoranthene	*ERL	<6.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
Benzo(k)fluoranthene	*ERL	<6.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
Fluoranthene	*ERL	<6.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
Fluorene	*ERL	<6.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25

*ERL elevated reporting limit due to hydrocarbons.

Analytical Results Report

Cliff P. Brunson.
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Hobbs, NM 88240

Date: 3/12/99
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Order ID Number: 9902000261/262
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB 8 (2-3') Sample Number: 119008

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene		8.5	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
Pyrene	*ERL	<6.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
Naphthalene		11	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
1-methylnaphthalene		24	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
2-methylnaphthalene		27	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
Benzo-a-pyrene	*ERL	<6.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
Phenol	*ERL	<6.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	6.25
Surr. 2-Fluorophenol		75	%	8270C	2/16/99	2/19/99	MA	5626	5774	25-121
Surr. Phenol-d6		87	%	8270C	2/16/99	2/19/99	MA	5626	5774	24-113
Surr. Nitrobenzene-d5	**	136	%	8270C	2/16/99	2/19/99	MA	5626	5774	23-120
Surr. 2-Fluorobiphenyl		97	%	8270C	2/16/99	2/19/99	MA	5626	5774	30-115
Surr. 2,4,6-Tribromophenol		81	%	8270C	2/16/99	2/19/99	MA	5626	5774	19-122
Surr. Terphenyl-d14		83	%	8270C	2/16/99	2/19/99	MA	5626	5774	28-137

*ERL elevated reporting limit due to hydrocarbons.

**Surrogate out of control limits due to the presence of coeluting ions (23-120)

Analytical Results Report

Cliff P. Brunson.
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1324 W. Marland
Hobbs, NM 88240

Date: 3/12/99
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Order ID Number: 9902000261/262
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB 8 (8-10') Sample Number: 119009

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Hexachloroethane		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
bis (2-chloroethyl) ether		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Isophorone		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
Nitrobenzene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Anthracene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Fluoranthene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Fluorene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25

Analytical Results Report

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Hobbs, NM 88240

Date: 3/12/99
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Order ID Number: 9902000261/262
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: T&B 8 (8-10') Sample Number: 119009

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Pyrene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Naphthalene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Phenol		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Surr. 2-Fluorophenol		64	%	8270C	2/16/99	2/19/99	MA	5626	5774	25-121
Surr. Phenol-d6		72	%	8270C	2/16/99	2/19/99	MA	5626	5774	24-113
Surr. Nitrobenzene-d5		84	%	8270C	2/16/99	2/19/99	MA	5626	5774	23-120
Surr. 2-Fluorobiphenyl		84	%	8270C	2/16/99	2/19/99	MA	5626	5774	30-115
Surr. 2,4,6-Tribromophenol		59	%	8270C	2/16/99	2/19/99	MA	5626	5774	19-122
Surr. Terphenyl-d14		86	%	8270C	2/16/99	2/19/99	MA	5626	5774	28-137

Analytical Results Report

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Hobbs, NM 88240

Date: 3/12/99
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Order ID Number: 9902000261/262
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB 8 (40-42') Sample Number: 119010

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Hexachloroethane		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
bis (2-chloroethyl) ether		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Isophorone		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
Nitrobenzene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Anthracene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Fluoranthene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Fluorene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/12/99

Order ID Number: 9902000261/262
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB 8 (40-42') Sample Number: 119010

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Phenanthrene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Pyrene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Naphthalene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Phenol		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Surr. 2-Fluorophenol		66	%	8270C	2/16/99	2/19/99	MA	5626	5774	25-121
Surr. Phenol-d6		72	%	8270C	2/16/99	2/19/99	MA	5626	5774	24-113
Surr. Nitrobenzene-d5		78	%	8270C	2/16/99	2/19/99	MA	5626	5774	23-120
Surr. 2-Fluorobiphenyl		78	%	8270C	2/16/99	2/19/99	MA	5626	5774	30-115
Surr. 2,4,6-Tribromophenol		56	%	8270C	2/16/99	2/19/99	MA	5626	5774	19-122
Surr. Terphenyl-d14		79	%	8270C	2/16/99	2/19/99	MA	5626	5774	28-137

Analytical Results Report

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B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/12/99
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Order ID Number: 9902000261/262
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: Trip Blank Sample Number: 119011

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	5
Acrylonitrile		<5	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	5
Benzene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Carbon tetrachloride		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Chlorobenzene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
1,2-dichloroethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
1,1,1-trichloroethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
1,1,2-trichloroethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
[redacted]loroform		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
[redacted]hlorobenzene		<2	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	2
1,1-dichloroethylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Dichloropropenes		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Ethylbenzene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Bromodichloromethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Bromomethane		<5	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	5
Chloromethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Dichlorodifluoromethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Dichloromethane		<5	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	5
Trichlorofluoromethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Tetrachloroethylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Toluene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Trichloroethylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Vinyl chloride		<2	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	2
m,p-xylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
o-xylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
1,1-dichloroethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Ethylene dibromide		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Methylene chloride		<5	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	5
Surr. Dibromofluoromethane		105	%	S-8260B	2/18/99	2/18/99	JG		5771	72-130
Surr. Toluene-d8		97	%	S-8260B	2/18/99	2/18/99	JG		5771	77-127
Surr. 4-Bromofluorobenzene		99	%	S-8260B	2/18/99	2/18/99	JG		5771	72-131

Analytical Results Report

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B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/12/99
Page: #13

Order ID Number: 9902000261/262
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: Field Blank

Sample Number: 119012

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	5
Acrylonitrile		<5	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	5
Benzene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Carbon tetrachloride		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Chlorobenzene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
1,2-dichloroethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
1,1,1-trichloroethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
1,1,2-trichloroethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
[redacted]loroform		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
[redacted]chlorobenzene		<2	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	2
1,1-dichloroethylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Dichloropropenes		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Ethylbenzene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Bromodichloromethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Bromomethane		<5	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	5
Chloromethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Dichlorodifluoromethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Dichloromethane		<5	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	5
Trichlorofluoromethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Tetrachloroethylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Toluene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Trichloroethylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Vinyl chloride		<2	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	2
m,p-xylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
o-xylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
1,1-dichloroethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Ethylene dibromide		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Methylene chloride		<5	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	5
Surr. Dibromofluoromethane		103	%	S-8260B	2/18/99	2/18/99	JG		5771	72-130
Surr. Toluene-d8		98	%	S-8260B	2/18/99	2/18/99	JG		5771	77-127
Surr. 4-Bromofluorobenzene		98	%	S-8260B	2/18/99	2/18/99	JG		5771	72-131

Quality Control Report
Blanks

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/12/99
Page #14

Order ID Number: 9902000261/262
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	5
Acrylonitrile		<5	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	5
Benzene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Carbon tetrachloride		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Chlorobenzene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
1,2-dichloroethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
1,1,1-trichloroethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
1,1,2-trichloroethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Chloroform		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Chlorobenzene		<2	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	2
1,1-dichloroethylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Dichloropropenes		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Ethylbenzene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Bromodichloromethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Bromomethane		<5	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	5
Chloromethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Dichlorodifluoromethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Dichloromethane		<5	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	5
Trichlorofluoromethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Tetrachloroethylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Toluene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Trichloroethylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Vinyl chloride		<2	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	2
m,p-xylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
o-xylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
1,1-dichloroethane		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Ethylene dibromide		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	1
Methylene chloride		<5	ug/L	S-8260B	2/18/99	2/18/99	JG		5771	5
Surr. Dibromofluoromethane		101	%	S-8260B	2/18/99	2/18/99	JG		5771	72-130
Surr. Toluene-d8		98	%	S-8260B	2/18/99	2/18/99	JG		5771	77-127
Surr. 4-Bromofluorobenzene		97	%	S-8260B	2/18/99	2/18/99	JG		5771	72-131

Quality Control Report
Blanks

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/12/99
Page #15

Order ID Number: 9902000261/262
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<125	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	125
Acrylonitrile		<125	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	125
Benzene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Carbon tetrachloride		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Chlorobenzene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
1,2-dichloroethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
1,1,2,2-tetrachloroethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
1,1,1-trichloroethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
1,1,2-trichloroethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
1,1,2-trichloroethylene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Chloroform		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
[illegible]hlorobenzene		<50	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	50
[illegible]-dichloroethylene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Dichloropropenes		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Ethylbenzene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Bromodichloromethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Bromomethane		<125	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	125
Chloromethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Dichlorodifluoromethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Dichloromethane		<125	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	125
Trichlorofluorometane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Tetrachloroethylene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Toluene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Trichloroethylene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Vinyl chloride		<50	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	50
m,p-xylene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
o-xylene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
1,1-dichloroethane		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Ethylene dibromide		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
cis-1,2-dichlorethylene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
trans-1,2-dichloroethylene		<25	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	25
Methylene chloride		<125	ug/kg	S-8260B	2/23/99	2/23/99	JG		5772	125
Surr. Dibromofluoromethane		98	%	S-8260B	2/23/99	2/23/99	JG		5772	72-130
Surr. Toluene-d8		105	%	S-8260B	2/23/99	2/23/99	JG		5772	77-127
Surr. 4-Bromofluorobenzene		98	%	S-8260B	2/23/99	2/23/99	JG		5772	72-131

Quality Control Report
Blanks

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/12/99

Order ID Number: 9902000261/262
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<125	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	125
Acrylonitrile		<125	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	125
Benzene		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Carbon tetrachloride		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Chlorobenzene		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
1,2-dichloroethane		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
1,1,2,2-tetrachloroethane		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
1,1,1-trichloroethane		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
1,1,2-trichloroethane		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
1,1,2-trichloroethylene		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Chloroform		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
[illegible]lorobenzene		<50	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	50
[illegible]-dichloroethylene		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Dichloropropenes		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Ethylbenzene		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Bromodichloromethane		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Bromomethane		<125	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	125
Chloromethane		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Dichlorodifluoromethane		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Dichloromethane		<125	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	125
Trichlorofluoromethane		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Tetrachloroethylene		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Toluene		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Trichloroethylene		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Vinyl chloride		<50	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	50
m,p-xylene		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
o-xylene		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
1,1-dichloroethane		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Ethylene dibromide		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
cis-1,2-dichlorethylene		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
trans-1,2-dichloroethylene		<25	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	25
Methylene chloride		<125	ug/kg	S-8260B	2/27/99	2/27/99	JG		5773	125
Surr. Dibromofluoromethane		98	%	S-8260B	2/27/99	2/27/99	JG		5773	72-130
Surr. Toluene-d8		112	%	S-8260B	2/27/99	2/27/99	JG		5773	77-127
Surr. 4-Bromofluorobenzene		93	%	S-8260B	2/27/99	2/27/99	JG		5773	72-131

Quality Control Report
Blanks

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/12/99

Order ID Number: 9902000261/262
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		< 2.5	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Hexachloroethane		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
bis (2-chloroethyl) ether		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
3-dichlorobenzidine		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
4-dinitrotoluene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Isophorone		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
Nitrobenzene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Anthracene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Fluoranthene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Fluorene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Phenanthrene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25

Quality Control Report
Blanks

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/12/99

Order ID Number: 9902000261/262
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Pyrene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Naphthalene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Phenol		<0.25	mg/kg	8270C	2/16/99	2/19/99	MA	5626	5774	0.25
Surr. 2-Fluorophenol		69	%	8270C	2/16/99	2/19/99	MA	5626	5774	25-121
Surr. Phenol-d6		78	%	8270C	2/16/99	2/19/99	MA	5626	5774	24-113
Surr. Nitrobenzene-d5		78	%	8270C	2/16/99	2/19/99	MA	5626	5774	23-120
Surr. 2-Fluorobiphenyl		82	%	8270C	2/16/99	2/19/99	MA	5626	5774	30-115
Surr. 2,4,6-Tribromophenol		62	%	8270C	2/16/99	2/19/99	MA	5626	5774	19-122
Surr. Terphenyl-d14		84	%	8270C	2/16/99	2/19/99	MA	5626	5774	28-137

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/12/99
Page #19

Order ID Number: 9902000261/262
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	98	98	02/18/99	5771
1,1-Dichloroethene		100	ug/L	119	119	02/18/99	5771
Chloroform		100	ug/L	116	116	02/18/99	5771
1,2-Dichloropropane		100	ug/L	97	97	02/18/99	5771
Toluene		100	ug/L	109	109	02/18/99	5771
Chlorobenzene		100	ug/L	105	105	02/18/99	5771
Ethylbenzene		100	ug/L	105	105	02/18/99	5771
Surr. Dibromofluoromethane		100	%	101	101	02/18/99	5771
Surr. Toluene-d8		100	%	98	98	02/18/99	5771
Surr. 4-Bromofluorobenzene		100	%	100	100	02/18/99	5771
Vinyl chloride		100	ug/kg	111	111	02/23/99	5772
1,1-Dichloroethene		100	ug/kg	92	92	02/23/99	5772
Chloroform		100	ug/kg	99	99	02/23/99	5772
1,2-Dichloropropane		100	ug/kg	102	102	02/23/99	5772
Toluene		100	ug/kg	101	101	02/23/99	5772
Chlorobenzene		100	ug/kg	105	105	02/23/99	5772
Ethylbenzene		100	ug/kg	106	106	02/23/99	5772
Surr. Dibromofluoromethane		100	%	96	96	02/23/99	5772
Surr. Toluene-d8		100	%	108	108	02/23/99	5772
Surr. 4-Bromofluorobenzene		100	%	97	97	02/23/99	5772
Vinyl chloride		100	ug/kg	118	118	02/27/99	5773
1,1-Dichloroethene		100	ug/kg	85	85	02/27/99	5773
Chloroform		100	ug/kg	100	100	02/27/99	5773
1,2-Dichloropropane		100	ug/kg	106	106	02/27/99	5773
Toluene		100	ug/kg	101	101	02/27/99	5773
Chlorobenzene		100	ug/kg	105	105	02/27/99	5773
Ethylbenzene		100	ug/kg	106	106	02/27/99	5773
Surr. Dibromofluoromethane		100	%	99	99	02/27/99	5773
Surr. Toluene-d8		100	%	112	112	02/27/99	5773
Surr. 4-Bromofluorobenzene		100	%	94	94	02/27/99	5773

Quality Control Report
Continuing Calibration Verification Standard

B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/12/99
Page #20

Order ID Number: 9902000261/262
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Phenol		80	mg/L	83	104	02/19/99	5774
1,4-Dichlorobenzene		80	mg/L	80	100	02/19/99	5774
2-nitrophenol		80	mg/L	86	108	02/19/99	5774
2,4-Dichlorophenol		80	mg/L	78	98	02/19/99	5774
Hexachlorobutadiene		80	mg/L	82	103	02/19/99	5774
4-Chloro-3-methylphenol		80	mg/L	80	100	02/19/99	5774
2,4,6-Trichlorophenol		80	mg/L	78	98	02/19/99	5774
Acenaphthene		80	mg/L	90	113	02/19/99	5774
n-Nitrosodiphenylamine		80	mg/L	92	115	02/19/99	5774
Pentachlorophenol		80	mg/L	64	80	02/19/99	5774
Fluoranthene		80	mg/L	89	111	02/19/99	5774
Di-n-octylphthalate		80	mg/L	64	80	02/19/99	5774
Benzo(a)pyrene		80	mg/L	87	109	02/19/99	5774
Surr. 2-Fluorophenol		80	%	84	105	02/19/99	5774
Surr. Phenol-d6		80	%	82	103	02/19/99	5774
Surr. Nitroobenzene-d5		80	%	99	124	02/19/99	5774
Surr. 2-Fluorobiphenyl		80	%	91	114	02/19/99	5774
Surr. 2,4,6-Tribromophenol		80	%	80	100	02/19/99	5774
Surr. Terphenyl-d14		80	%	71	89	02/19/99	5774

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/12/99

Order ID Number: 9902000261/262
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene	*	ug/L	<1	100	113	113	100	117	117	3	2/18/99		5771
Benzene	*	ug/L	<1	100	113	113	100	115	115	2	2/18/99		5771
Trichloroethene	*	ug/L	<1	100	101	101	100	103	103	2	2/18/99		5771
Toluene	*	ug/L	<1	100	109	109	100	109	109	0	2/18/99		5771
Chlorobenzene	*	ug/L	<1	100	108	108	100	108	108	0	2/18/99		5771
Surr. Dibromofluoromethane	*	%	101	100	100	100	100	103	103	3	2/18/99		5771
Surr. Toluene-d8	*	%	98	100	99	99	100	97	97	2	2/18/99		5771
Surr. 4-Bromofluorobenzene	*	%	97	100	96	96	100	98	98	2	2/18/99		5771
1,1-Dichloroethene	*	ug/kg	<25	100	86	86	100	85	85	1	2/23/99		5772
nzene	*	ug/kg	<25	100	106	106	100	107	107	1	2/23/99		5772
chloroethene	*	ug/kg	<25	100	107	107	100	106	106	1	2/23/99		5772
Toluene	*	ug/kg	<25	100	105	105	100	107	107	2	2/23/99		5772
Chlorobenzene	*	ug/kg	<25	100	108	108	100	108	108	0	2/23/99		5772
Surr. Dibromofluoromethane	*	%	98	100	101	101	100	102	102	1	2/23/99		5772
Surr. Toluene-d8	*	%	105	100	109	109	100	107	107	2	2/23/99		5772
Surr. 4-Bromofluorobenzene	*	%	98	100	100	100	100	100	100	0	2/23/99		5772
1,1-Dichloroethene		ug/kg	<25	100	80	80	100	77	77	4	2/27/99		5773
Benzene		ug/kg	<25	100	105	105	100	105	105	0	2/27/99		5773
Trichloroethene		ug/kg	<25	100	106	106	100	107	107	1	2/27/99		5773
Toluene		ug/kg	<25	100	106	106	100	106	106	0	2/27/99		5773
Chlorobenzene		ug/kg	<25	100	109	109	100	108	108	1	2/27/99		5773
Surr. Dibromofluoromethane		%	102	100	102	102	100	101	101	1	2/27/99		5773
Surr. Toluene-d8		%	109	100	109	109	100	108	108	1	2/27/99		5773
Surr. 4-Bromofluorobenzene		%	95	100	98	98	100	96	96	2	2/27/99		5773

*LCS's used for spike and spike duplicate.

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/12/99
Page #22

Order ID Number: 9902000261/262
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Phenol	*	mg/kg	<0.25	100	68	68	100	71	71	4	2/19/99	5626	5774
2-Chlorophenol	*	mg/kg	<1.25	100	58	58	100	61	61	5	2/19/99	5626	5774
1,4-Dichlorobenzene	*	mg/kg	<0.25	100	55	55	100	57	57	4	2/19/99	5626	5774
n-Nitrosodi-n-propylamine	*	mg/kg	<0.25	100	73	73	100	76	76	4	2/19/99	5626	5774
1,2,4-trichlorobenzene	*	mg/kg	<0.25	100	59	59	100	60	60	2	2/19/99	5626	5774
4-Chloro-3-methylphenol	*	mg/kg	<1.25	100	86	86	100	86	86	0	2/19/99	5626	5774
Acenaphthene	*	mg/kg	<0.25	100	81	81	100	83	83	2	2/19/99	5626	5774
4-Nitrophenol	*	mg/kg	<1.25	100	24	24	100	20	20	18	2/19/99	5626	5774
2,4-Dinitrotoluene	*	mg/kg	<0.25	100	86	86	100	87	87	1	2/19/99	5626	5774
Pentachlorophenol	*	mg/kg	<1.25	100	66	66	100	68	68	3	2/19/99	5626	5774
Pyrene	*	mg/kg	<0.25	100	94	94	100	88	88	7	2/19/99	5626	5774
Surr. 2-Fluorophenol	*	%	69	100	60	60	100	62	62	3	2/19/99	5626	5774
Surr. Phenol-d6	*	%	78	100	64	64	100	68	68	6	2/19/99	5626	5774
Surr. Nitrobenzene-d5	*	%	78	100	75	75	100	75	75	0	2/19/99	5626	5774
Surr. 2-Fluorobiphenyl	*	%	82	100	71	71	100	72	72	1	2/19/99	5626	5774
Surr. 2,4,6-Tribromopheno	*	%	62	100	92	92	100	86	86	7	2/19/99	5626	5774
Surr. Terphenyl-d14	*	%	84	100	92	92	100	85	85	8	2/19/99	5626	5774

*LCS's used for spike and spike duplicate.

119004 - 1C

Page 1 of 1

6701 Aberdeen Ave., Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

5 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 261 / 262

Company Name: BBC International, Inc. Phone #: (505) 397-6388

Address: (Street, City, Zip) 1324 W. Marland, Hobbs, NM 88240 Fax #: (505) 397-0397

Contact Person: Cliff P. Brunson

Invoice to: (If different from above) Shell E & P Technology Co. ATTN: Wayne Hamilton

Project #: Project Name: Shell Westgate

Project Location: Hobbs, New Mexico Sampler Signature: Daniel A. Williams

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
119004	TMW-3 (2-3)	1	4 VOA		X							X	2-15-99	8:52 am
05	TMW-3 (3-5)	1	4 VOA		X							X	2/15/99	8:57 am
06	TMW-3 (23-25)	1	VOA		X							X	2/15/99	9:38 am
07	TMW-3 (63-65)	1	VOA		X							X	2/15/99	10:41 am
8	TSB-8 (2-3)	2	4 oz		X					X			2/15/99	11:38 am
9	TSB-8 (8-10)	2	4 oz		X					X			2/15/99	11:46 am
10	TSB-8 (40-42)	2	4 oz		X					X			2/15/99	1:13 pm
11	Trip Blank	2	VOA										2-15-99	
12	Field Blank	2	VOA	X						X			2-15-99	

ANALYSIS REQUEST (Circle or Specify Method No.)	
MTBE 8021B/602	
BTEX 8021B/602	
TPH 418.1/TX1005	
PAH 8270C	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC-MS Vol. 8260B/624	✓
GC/MS Semi. Vol. 8270C/625	
PCB's 8082/608	
Pesticides 8081A/608	
BOD, TSS, pH	
See Attached (Full Suite)	
Total Chlorides (300-1)	
Total Metals (6010)	
Turn Around Time if different from standard	
Hold	

Relinquished by: Daniel A. Williams Date: 2-15-99 Time: 2:00pm

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received at Laboratory by: Nicki Worthen Date: 2-16-99 Time: 9:05

LAB USE ONLY

Intact Y / N

Headspace Y / N

Temp 3 °

Log-in Review TK

REMARKS: All Samples Conformation Agreed Upon Turnaround

Carrier # Bus 901984677 0

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/16/99
Page: # 1

Project Name: Shell Westgate
Project Location: Hobbs, NM
Order ID Number: 9902000411/412

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
119627	TSB 18 (33-35)	Soil	02/25/99	10:00 .am.	02/26/99
119628	TSB 18 (43-45)	Soil	02/25/99	11:30 a.m	02/26/99
119629	TSB 19 (8-10)	Soil	02/25/99	1:58 p.m.	02/26/99
119630	TSB 19 (38-40)	Soil	02/25/99	3:28 p.m.	02/26/99
119631	Trip Blank	Water	02/25/99		02/26/99
119632	Field Blank	Water	02/25/99		02/26/99

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

This report shall not be reproduced except in its entirety, without written approval of the laboratory.

These results represent only the samples received in the laboratory.

This report consists of a total of 36 pages.

Dr. Blair Leftwich
Director

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Order ID Number: 9902000411/412
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB 18 (33-35) Sample Number: 119627

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<130	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	130
Acrylonitrile		<130	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	130
Benzene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Carbon tetrachloride		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Chlorobenzene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
1,2-dichloroethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
1,1,2,2-tetrachloroethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
1,1,1-trichloroethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
1,1,2-trichloroethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
1,1,2-trichloroethylene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Chloroform		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Dichlorobenzene		<52	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	52
1,1-dichloroethylene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Dichloropropenes		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Ethylbenzene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Bromodichloromethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Bromomethane		<130	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	130
Chloromethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Dichlorodifluoromethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Dichloromethane		<130	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	130
Trichlorofluoromethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Tetrachloroethylene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Toluene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Trichloroethylene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Vinyl chloride		<52	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	52
m,p-xylene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
o-xylene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
1,1-dichloroethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Ethylene dibromide		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
cis-1,2-dichlorethylene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
trans-1,2-dichloroethylene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Methylene chloride		<130	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	130
Surr. Dibromofluoromethane		99	%	S-8260B	3/3/99	3/3/99	JG		0037	72-130
Surr. Toluene-d8		110	%	S-8260B	3/3/99	3/3/99	JG		0037	77-127
Surr. 4-Bromofluorobenzene		100	%	S-8260B	3/3/99	3/3/99	JG		0037	72-131

Order ID Number: 9902000411/412 Sample Number: 119627
Field Code: TSB 18 (33-35) Page # 3

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Hexachloroethane		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
bis (2-chloroethyl) ether		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Isophorone		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
Nitrobenzene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	5
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Anthracene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Fluoranthene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Fluorene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Phenanthrene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Pyrene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Naphthalene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Phenol		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Surr. 2-Fluorophenol		51	%	8270C	3/2/99	3/3/99	DG	0045	0036	25-121
Surr. Phenol-d6		54	%	8270C	3/2/99	3/3/99	DG	0045	0036	24-113
Surr. Nitrobenzene-d5		50	%	8270C	3/2/99	3/3/99	DG	0045	0036	23-120
Surr. 2-Fluorobiphenyl		52	%	8270C	3/2/99	3/3/99	DG	0045	0036	30-115
Surr. 2,4,6-Tribromophenol		41	%	8270C	3/2/99	3/3/99	DG	0045	0036	19-122
Surr. Terphenyl-d14		63	%	8270C	3/2/99	3/3/99	DG	0045	0036	28-137

Order ID Number: 9902000411/412
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/16/99
Page # 4

Sample Number: 119627

Field Code: TSB 18 (33-35)

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin		<0.02	mg/kg	8081	3/3/99	3/5/99	SH			0.02
Chlordane		<0.10	mg/kg	8081	3/3/99	3/5/99	SH			0.10
DDT		<0.03	mg/kg	8081	3/3/99	3/5/99	SH			0.03
Dieldrin		<0.02	mg/kg	8081	3/3/99	3/5/99	SH			0.02
Endosulfan		<0.03	mg/kg	8081	3/3/99	3/5/99	SH			0.03
Endrin		<0.05	mg/kg	8081	3/3/99	3/5/99	SH			0.05
Heptachlor		<0.03	mg/kg	8081	3/3/99	3/5/99	SH			0.03
PCB's		<0.1	mg/kg	8082	3/3/99	3/5/99	SO	0053	0045	0.1
Arsenic		<0.50	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Barium		7.6	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Cadmium		<0.10	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.10
Chromium		2.1	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Lead		1.6	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.20
Total Mercury		0.11	mg/kg	7471A	3/1/99	3/1/99	BP	0044	0035	0.10
Selenium		<0.50	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Silver		<0.50	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Uranium		<5.0	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	5.0
Copper		<1.0	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	1.0
Iron		2,100	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	2.0
Manganese		15	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	1.0
Zinc		5.0	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	2.0
Aluminum		2,170	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	10
Boron		14	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	10
Cobalt		<0.50	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Molybdenum		<1.0	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	1.0
Nickel		1.3	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Cyanide		<0.20	mg/kg	SM 4500CN C,E	3/3/99	3/3/99	MD	0049	0041	0.2
Fluoride		2.1	mg/kg	300.0	3/2/99	3/2/99	JS	0051	0043	0.1
Nitrate		2.1	mg/kg	300.0	3/2/99	3/2/99	JS	0051	0043	0.2
Chloride		12	mg/kg	300.0	3/2/99	3/2/99	JS	0051	0043	0.5
Sulfate		50	mg/kg	300.0	3/2/99	3/2/99	JS	0051	0043	0.5
TDS		240	mg/kg	160.1	3/1/99	3/1/99	SA	0047	0039	10
pH		8.7	s.u.	150.1	2/26/99	2/26/99	RS	0050	0042	---
TRPHC		<10.0	mg/kg	418.1	3/1/99	3/1/99	MF	5599	5737	10
Total Phenol		<0.50	mg/kg	SM 5530 A,D	3/2/99	3/2/99	MD	0048	0040	0.50
Total Radium		0.21	pCi/gm	901.1M		3/3/99	CC			

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/16/99
Page #5

Order ID Number: 9902000411/412
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB 18 (43-45) Sample Number: 119628

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<140	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	140
Acrylonitrile		<140	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	140
Benzene		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
Carbon tetrachloride		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
Chlorobenzene		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
1,2-dichloroethane		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
1,1,2,2-tetrachloroethane		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
1,1,1-trichloroethane		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
1,1,2-trichloroethane		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
1,1,2-trichloroethylene		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
Chloroform		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
Dichlorobenzene		<56	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	56
1,1-dichloroethylene		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
Dichloropropenes		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
Ethylbenzene		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
Bromodichloromethane		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
Bromomethane		<140	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	140
Chloromethane		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
Dichlorodifluoromethane		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
Dichloromethane		<140	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	140
Trichlorofluoromethane		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
Tetrachloroethylene		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
Toluene		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
Trichloroethylene		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
Vinyl chloride		<56	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	56
m,p-xylene		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
o-xylene		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
1,1-dichloroethane		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
Ethylene dibromide		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
cis-1,2-dichlorethylene		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
trans-1,2-dichloroethylene		<28	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	28
Methylene chloride		<140	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	140
Surr. Dibromofluoromethane		100	%	S-8260B	3/3/99	3/3/99	JG		0037	72-130
Surr. Toluene-d8		108	%	S-8260B	3/3/99	3/3/99	JG		0037	77-127
Surr. 4-Bromofluorobenzene		99	%	S-8260B	3/3/99	3/3/99	JG		0037	72-131

Order ID Number: 9902000411/412 Page #6
Field Code: TSB 18 (43-45) Sample Number: 119628

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Hexachloroethane		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
bis (2-chloroethyl) ether		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Isophorone		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
Nitrobenzene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Anthracene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Fluoranthene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Fluorene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Phenanthrene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Pyrene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Naphthalene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Phenol		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Surr. 2-Fluorophenol		36	%	8270C	3/2/99	3/3/99	DG	0045	0036	25-121
Surr. Phenol-d6		37	%	8270C	3/2/99	3/3/99	DG	0045	0036	24-113
Surr. Nitrobenzene-d5		33	%	8270C	3/2/99	3/3/99	DG	0045	0036	23-120
Surr. 2-Fluorobiphenyl		33	%	8270C	3/2/99	3/3/99	DG	0045	0036	30-115
Surr. 2,4,6-Tribromophenol		28	%	8270C	3/2/99	3/3/99	DG	0045	0036	19-122
Surr. Terphenyl-d14		43	%	8270C	3/2/99	3/3/99	DG	0045	0036	28-137

Order ID Number: 9902000411/412 Date: 3/16/99
Project Name: Shell Westgate Page #7
Project Location: Hobbs, NM

Field Code: TSB 18 (43-45) Sample Number: 119628

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin		<0.02	mg/kg	8081	3/3/99	3/5/99	SH			0.02
Chlordane		<0.10	mg/kg	8081	3/3/99	3/5/99	SH			0.10
DDT		<0.03	mg/kg	8081	3/3/99	3/5/99	SH			0.03
Dieldrin		<0.02	mg/kg	8081	3/3/99	3/5/99	SH			0.02
Endosulfan		<0.03	mg/kg	8081	3/3/99	3/5/99	SH			0.03
Endrin		<0.05	mg/kg	8081	3/3/99	3/5/99	SH			0.05
Heptachlor		<0.03	mg/kg	8081	2/23/99	2/24/99	SH			0.03
PCB's		<0.1	mg/kg	8082	3/3/99	3/5/99	SO	0053	0045	0.1
Arsenic		<0.50	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Barium		5.5	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Cadmium		<0.10	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.10
Chromium		1.7	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Lead		1.2	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.20
Total Mercury		0.10	mg/kg	7471A	3/1/99	3/1/99	BP	0044	0035	0.10
Selenium		<0.50	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Silver		<0.50	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Uranium		<5.0	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	5.0
Copper		<1.0	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	1.0
Iron		2,180	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	2.0
Manganese		16	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	1.0
Zinc		6.5	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	2.0
Aluminum		1,960	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	10
Boron		15	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	10
Cobalt		<0.50	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Molybdenum		<1.0	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	1.0
Nickel		0.93	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Cyanide		<0.20	mg/kg	SM 4500CN C,E	3/3/99	3/3/99	MD	0049	0041	0.2
Fluoride		1.4	mg/kg	300.0	3/2/99	3/2/99	JS	0051	0043	0.1
Nitrate		1.9	mg/kg	300.0	3/2/99	3/2/99	JS	0051	0043	0.2
Chloride		10	mg/kg	300.0	3/2/99	3/2/99	JS	0051	0043	0.5
Sulfate		38	mg/kg	300.0	3/2/99	3/2/99	JS	0051	0043	0.5
TDS		265	mg/kg	160.1	3/1/99	3/1/99	SA	0047	0039	10
pH		8.8	s.u.	150.1	2/26/99	2/26/99	RS	0050	0042	---
TRPHC		<10.0	mg/kg	418.1	3/1/99	3/1/99	MF	5599	5737	10
Total Phenol		0.697	mg/kg	SM 5530 A,D	3/2/99	3/2/99	MD	0048	0040	0.50
Total Radium		1.70	pCi/gm	901.1M		3/3/99	CC			

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/16/99
Page #8

Order ID Number: 9902000411/412
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB 19 (8-10)

Sample Number: 119629

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<130	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	130
Acrylonitrile		<130	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	130
Benzene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Carbon tetrachloride		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Chlorobenzene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
1,2-dichloroethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
1,1,2,2-tetrachloroethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
1,1,1-trichloroethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
1,1,2-trichloroethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
1,1,2-trichloroethylene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Chloroform		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Dichlorobenzene		<52	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	52
1,1-dichloroethylene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Dichloropropenes		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Ethylbenzene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Bromodichloromethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Bromomethane		<130	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	130
Chloromethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Dichlorodifluoromethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Dichloromethane		<130	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	130
Trichlorofluoromethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Tetrachloroethylene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Toluene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Trichloroethylene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Vinyl chloride		<52	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	52
m,p-xylene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
o-xylene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
1,1-dichloroethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Ethylene dibromide		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
cis-1,2-dichlorethylene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
trans-1,2-dichloroethylene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Methylene chloride		<130	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	130
Surr. Dibromofluoromethane		99	%	S-8260B	3/3/99	3/3/99	JG		0037	72-130
Surr. Toluene-d8		109	%	S-8260B	3/3/99	3/3/99	JG		0037	77-127
Surr. 4-Bromofluorobenzene		99	%	S-8260B	3/3/99	3/3/99	JG		0037	72-131

Order ID Number: 9902000411/412 Sample Number: 119629
Field Code: TSB 19 (8-10) Page #9

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Hexachloroethane		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
bis (2-chloroethyl) ether		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Isophorone		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
Nitrobenzene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Anthracene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Fluoranthene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Fluorene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Phenanthrene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Pyrene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Naphthalene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Phenol		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Surr. 2-Fluorophenol		39	%	8270C	3/2/99	3/3/99	DG	0045	0036	25-121
Surr. Phenol-d6		42	%	8270C	3/2/99	3/3/99	DG	0045	0036	24-113
Surr. Nitrobenzene-d5		38	%	8270C	3/2/99	3/3/99	DG	0045	0036	23-120
Surr. 2-Fluorobiphenyl		36	%	8270C	3/2/99	3/3/99	DG	0045	0036	30-115
Surr. 2,4,6-Tribromophenol		38	%	8270C	3/2/99	3/3/99	DG	0045	0036	19-122
Surr. Terphenyl-d14		50	%	8270C	3/2/99	3/3/99	DG	0045	0036	28-137

Order ID Number: 9902000411/412
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/16/99
Page #10

Sample Number: 119629

Field Code: TSB 19 (8-10)

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin		<0.02	mg/kg	8081	3/3/99	3/5/99	SH			0.02
Chlordane		<0.10	mg/kg	8081	3/3/99	3/5/99	SH			0.10
DDT		<0.03	mg/kg	8081	3/3/99	3/5/99	SH			0.03
Dieldrin		<0.02	mg/kg	8081	3/3/99	3/5/99	SH			0.02
Endosulfan		<0.03	mg/kg	8081	3/3/99	3/5/99	SH			0.03
Endrin		<0.05	mg/kg	8081	3/3/99	3/5/99	SH			0.05
Heptachlor		<0.03	mg/kg	8081	2/23/99	2/24/99	SH			0.03
PCB's		<0.1	mg/kg	8082	3/3/99	3/5/99	SO	0053	0045	0.1
Arsenic		5.5	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Barium		304	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Cadmium		<0.10	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.10
Chromium		<0.50	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Lead		1.5	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.20
Total Mercury		0.10	mg/kg	7471A	3/1/99	3/1/99	BP	0044	0035	0.10
Selenium		<0.50	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Silver		<0.50	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Uranium		<5.0	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	5.0
Copper		1.9	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	1.0
Iron		1,550	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	2.0
Manganese		11	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	1.0
Zinc		4.0	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	2.0
Aluminum		2,730	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	10
Boron		16	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	10
Cobalt		<0.50	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Molybdenum		<1.0	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	1.0
Nickel		3.2	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Cyanide		<0.20	mg/kg	SM 4500CN C,E	3/3/99	3/3/99	MD	0049	0041	0.2
Fluoride		1.4	mg/kg	300.0	3/2/99	3/2/99	JS	0051	0043	0.1
Nitrate		6.1	mg/kg	300.0	3/2/99	3/2/99	JS	0051	0043	0.2
Chloride		1,100	mg/kg	300.0	3/2/99	3/2/99	JS	0051	0043	0.5
Sulfate		1,900	mg/kg	300.0	3/2/99	3/2/99	JS	0051	0043	0.5
TDS		4,400	mg/kg	160.1	3/1/99	3/1/99	SA	0047	0039	10
pH		8.0	s.u.	150.1	2/26/99	2/26/99	RS	0050	0042	---
TRPHC		<10.0	mg/kg	418.1	3/1/99	3/1/99	MF	5599	5737	10
Total Phenol		<0.50	mg/kg	SM 5530 A,D	3/2/99	3/2/99	MD	0048	0040	0.50
Total Radium		2.02	pCi/gm	901.1M		3/3/99	CC			

Analytical Results Report

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1324 W. Marland
Hobbs, NM 88240

Date: 3/16/99
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Order ID Number: 9902000411/412
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TSB 19 (38-40)

Sample Number: 119630

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<130	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	130
Acrylonitrile		<130	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	130
Benzene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Carbon tetrachloride		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Chlorobenzene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
1,2-dichloroethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
1,1,2,2-tetrachloroethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
1,1,1-trichloroethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
1,1,2-trichloroethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
1,1,2-trichloroethylene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Chloroform		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Dichlorobenzene		<52	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	52
1,1-dichloroethylene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Dichloropropenes		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Ethylbenzene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Bromodichloromethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Bromomethane		<130	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	130
Chloromethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Dichlorodifluoromethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Dichloromethane		<130	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	130
Trichlorofluoromethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Tetrachloroethylene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Toluene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Trichloroethylene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Vinyl chloride		<52	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	52
m,p-xylene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
o-xylene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
1,1-dichloroethane		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Ethylene dibromide		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
cis-1,2-dichlorethylene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
trans-1,2-dichloroethylene		<26	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	26
Methylene chloride		<130	ug/kg	S-8260B	3/3/99	3/3/99	JG		0037	130
Surr. Dibromofluoromethane		101	%	S-8260B	3/3/99	3/3/99	JG		0037	72-130
Surr. Toluene-d8		109	%	S-8260B	3/3/99	3/3/99	JG		0037	77-127
Surr. 4-Bromofluorobenzene		100	%	S-8260B	3/3/99	3/3/99	JG		0037	72-131

Order ID Number: 9902000411/412 Sample Number: 119630
Field Code: TSB 19 (38-40) Page #12

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Hexachloroethane		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
bis (2-chloroethyl) ether		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Isophorone		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
Nitrobenzene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Anthracene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Fluoranthene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Fluorene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Phenanthrene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Pyrene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Naphthalene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Phenol		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0045	0036	0.25
Surr. 2-Fluorophenol		38	%	8270C	3/2/99	3/3/99	DG	0045	0036	25-121
Surr. Phenol-d6		46	%	8270C	3/2/99	3/3/99	DG	0045	0036	24-113
Surr. Nitrobenzene-d5		39	%	8270C	3/2/99	3/3/99	DG	0045	0036	23-120
Surr. 2-Fluorobiphenyl		38	%	8270C	3/2/99	3/3/99	DG	0045	0036	30-115
Surr. 2,4,6-Tribromophenol		45	%	8270C	3/2/99	3/3/99	DG	0045	0036	19-122
Surr. Terphenyl-d14		60	%	8270C	3/2/99	3/3/99	DG	0045	0036	28-137

Order ID Number: 9902000411/412
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/16/99
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Sample Number: 119630

Field Code: TSB 19 (38-40)

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin		<0.02	mg/kg	8081	3/3/99	3/5/99	SH			0.02
Chlordane		<0.10	mg/kg	8081	3/3/99	3/5/99	SH			0.10
DDT		<0.03	mg/kg	8081	3/3/99	3/5/99	SH			0.03
Dieldrin		<0.02	mg/kg	8081	3/3/99	3/5/99	SH			0.02
Endosulfan		<0.03	mg/kg	8081	3/3/99	3/5/99	SH			0.03
Endrin		<0.05	mg/kg	8081	3/3/99	3/5/99	SH			0.05
Heptachlor		<0.03	mg/kg	8081	2/23/99	2/24/99	SH			0.03
PCB's		<0.1	mg/kg	8082	3/3/99	3/5/99	SO	0053	0045	0.1
Arsenic		<0.50	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Barium		7.9	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Cadmium		<0.10	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.10
Chromium		1.6	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Lead		0.52	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.20
Total Mercury		0.10	mg/kg	7471A	3/1/99	3/1/99	BP	0044	0035	0.10
Selenium		<0.50	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Silver		<0.50	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Uranium		<5.0	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	5.0
Copper		<1.0	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	1.0
Iron		2,830	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	2.0
Manganese		17	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	1.0
Zinc		5.4	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	2.0
Aluminum		2,700	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	10
Boron		15	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	10
Cobalt		<0.50	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Molybdenum		<1.0	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	1.0
Nickel		1.4	mg/kg	6010B	2/26/99	3/2/99	RR	0052	0044	0.50
Cyanide		<0.20	mg/kg	SM 4500CN C,E	3/3/99	3/3/99	MD	0049	0041	0.2
Fluoride		1.3	mg/kg	300.0	3/2/99	3/2/99	JS	0051	0043	0.1
Nitrate		1.5	mg/kg	300.0	3/2/99	3/2/99	JS	0051	0043	0.2
Chloride		31	mg/kg	300.0	3/2/99	3/2/99	JS	0051	0043	0.5
Sulfate		22	mg/kg	300.0	3/2/99	3/2/99	JS	0051	0043	0.5
TDS		220	mg/kg	160.1	3/1/99	3/1/99	SA	0047	0039	10
pH		8.7	s.u.	150.1	2/26/99	2/26/99	RS	0050	0042	---
TRPHC		<10.0	mg/kg	418.1	3/1/99	3/1/99	MF	5599	5737	10
Total Phenol		<0.50	mg/kg	SM 5530 A,D	3/2/99	3/2/99	MD	0048	0040	0.50
Total Radium		5.65	pCi/gm	901.1M		3/3/99	CC			

Analytical Results Report

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Date: 3/16/99
Page: #14

Order ID Number: 9902000411/412
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: Trip Blank

Sample Number: 119631

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	5
Acrylonitrile		<5	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	5
Benzene		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Carbon tetrachloride		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Chlorobenzene		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
1,2-dichloroethane		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
1,1,1-trichloroethane		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
1,1,2-trichloroethane		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Chloroform		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Dichlorobenzene		<2	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	2
1,1-dichloroethylene		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Dichloropropenes		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Ethylbenzene		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Bromodichloromethane		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Bromomethane		<5	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	5
Chloromethane		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Dichlorodifluoromethane		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Dichloromethane		<5	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	5
Trichlorofluoromethane		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Tetrachloroethylene		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Toluene		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Trichloroethylene		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Vinyl chloride		<2	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	2
m,p-xylene		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
o-xylene		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
1,1-dichloroethane		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Ethylene dibromide		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Methylene chloride		<5	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	5
Surr. Dibromofluoromethane		106	%	S-8260B	3/1/99	3/1/99	JG		0038	72-130
Surr. Toluene-d8		100	%	S-8260B	3/1/99	3/1/99	JG		0038	77-127
Surr. 4-Bromofluorobenzene		104	%	S-8260B	3/1/99	3/1/99	JG		0038	72-131

Analytical Results Report

Cliff P. Brunson,
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/16/99
Page: #15

Order ID Number: 9902000411/412
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: Field Blank

Sample Number: 119632

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	5
Acrylonitrile		<5	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	5
Benzene		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Carbon tetrachloride		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Chlorobenzene		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
1,2-dichloroethane		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
1,1,1-trichloroethane		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
1,1,2-trichloroethane		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Chloroform		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Dichlorobenzene		<2	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	2
1,1-dichloroethylene		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Dichloropropenes		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Ethylbenzene		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Bromodichloromethane		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Bromomethane		<5	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	5
Chloromethane		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Dichlorodifluoromethane		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Dichloromethane		<5	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	5
Trichlorofluoromethane		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Tetrachloroethylene		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Toluene		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Trichloroethylene		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Vinyl chloride		<2	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	2
m,p-xylene		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
o-xylene		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
1,1-dichloroethane		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Ethylene dibromide		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	1
Methylene chloride		<5	ug/L	S-8260B	3/1/99	3/1/99	JG		0038	5
Surr. Dibromofluoromethane		107	%	S-8260B	3/1/99	3/1/99	JG		0038	72-130
Surr. Toluene-d8		100	%	S-8260B	3/1/99	3/1/99	JG		0038	77-127
Surr. 4-Bromofluorobenzene		103	%	S-8260B	3/1/99	3/1/99	JG		0038	72-131

Quality Control Report
Blanks

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/16/99
Page #16

Order ID Number: 9902000411/412
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	3/1/99		0038
Acrylonitrile		<5	ug/L	5	3/1/99		0038
Benzene		<1	ug/L	1	3/1/99		0038
Carbon tetrachloride		<1	ug/L	1	3/1/99		0038
Chlorobenzene		<1	ug/L	1	3/1/99		0038
1,2-dichloroethane		<1	ug/L	1	3/1/99		0038
1,1,2,2-tetrachloroethane		<1	ug/L	1	3/1/99		0038
1,1,1-trichloroethane		<1	ug/L	1	3/1/99		0038
1,1,2-trichloroethane		<1	ug/L	1	3/1/99		0038
1,2-trichloroethylene		<1	ug/L	1	3/1/99		0038
Chloroform		<1	ug/L	1	3/1/99		0038
Dichlorobenzene		<2	ug/L	2	3/1/99		0038
1,1-dichloroethylene		<1	ug/L	1	3/1/99		0038
Dichloropropenes		<1	ug/L	1	3/1/99		0038
Ethylbenzene		<1	ug/L	1	3/1/99		0038
Bromodichloromethane		<1	ug/L	1	3/1/99		0038
Bromomethane		<5	ug/L	5	3/1/99		0038
Chloromethane		<1	ug/L	1	3/1/99		0038
Dichlorodifluoromethane		<1	ug/L	1	3/1/99		0038
Dichloromethane		<5	ug/L	5	3/1/99		0038
Trichlorofluoromethane		<1	ug/L	1	3/1/99		0038
Tetrachloroethylene		<1	ug/L	1	3/1/99		0038
Toluene		<1	ug/L	1	3/1/99		0038
Trichloroethylene		<1	ug/L	1	3/1/99		0038
Vinyl chloride		<2	ug/L	2	3/1/99		0038
m,p-xylene		<1	ug/L	1	3/1/99		0038
o-xylene		<1	ug/L	1	3/1/99		0038
1,1-dichloroethane		<1	ug/L	1	3/1/99		0038
Ethylene dibromide		<1	ug/L	1	3/1/99		0038
cis-1,2-dichlorethylene		<1	ug/L	1	3/1/99		0038
trans-1,2-dichloroethylene		<1	ug/L	1	3/1/99		0038
Methylene chloride		<5	ug/L	5	3/1/99		0038
Surr. Dibromofluoromethane		103	%	72-130	3/1/99		0038
Surr. Toluene-d8		100	%	77-127	3/1/99		0038
Surr. 4-Bromofluorobenzene		102	%	72-131	3/1/99		0038

Quality Control Report
Blanks

Order ID Number: 9902000411/412
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/16/99
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Parameter	Flag	Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<125	ug/kg	125	3/3/99		0037
Acrylonitrile		<125	ug/kg	125	3/3/99		0037
Benzene		<25	ug/kg	25	3/3/99		0037
Carbon tetrachloride		<25	ug/kg	25	3/3/99		0037
Chlorobenzene		<25	ug/kg	25	3/3/99		0037
1,2-dichloroethane		<25	ug/kg	25	3/3/99		0037
1,1,2,2-tetrachloroethane		<25	ug/kg	25	3/3/99		0037
1,1,1-trichloroethane		<25	ug/kg	25	3/3/99		0037
1,1,2-trichloroethane		<25	ug/kg	25	3/3/99		0037
1,1,2-trichloroethylene		<25	ug/kg	25	3/3/99		0037
Chloroform		<25	ug/kg	25	3/3/99		0037
Dichlorobenzene		<50	ug/kg	50	3/3/99		0037
1,1-dichloroethylene		<25	ug/kg	25	3/3/99		0037
Dichloropropenes		<25	ug/kg	25	3/3/99		0037
Ethylbenzene		<25	ug/kg	25	3/3/99		0037
Bromodichloromethane		<25	ug/kg	25	3/3/99		0037
Bromomethane		<125	ug/kg	125	3/3/99		0037
Chloromethane		<25	ug/kg	25	3/3/99		0037
Dichlorodifluoromethane		<25	ug/kg	25	3/3/99		0037
Dichloromethane		<125	ug/kg	125	3/3/99		0037
Trichlorofluoromethane		<25	ug/kg	25	3/3/99		0037
Tetrachloroethylene		<25	ug/kg	25	3/3/99		0037
Toluene		<25	ug/kg	25	3/3/99		0037
Trichloroethylene		<25	ug/kg	25	3/3/99		0037
Vinyl chloride		<50	ug/kg	50	3/3/99		0037
m,p-xylene		<25	ug/kg	25	3/3/99		0037
o-xylene		<25	ug/kg	25	3/3/99		0037
1,1-dichloroethane		<25	ug/kg	25	3/3/99		0037
Ethylene dibromide		<25	ug/kg	25	3/3/99		0037
cis-1,2-dichlorethylene		<25	ug/kg	25	3/3/99		0037
trans-1,2-dichloroethylene		<25	ug/kg	25	3/3/99		0037
Methylene chloride		<125	ug/kg	125	3/3/99		0037
Surr. Dibromofluoromethane		100	%	72-130	3/3/99		0037
Surr. Toluene-d8		114	%	77-127	3/3/99		0037
Surr. 4-Bromofluorobenzene		97	%	72-131	3/3/99		0037

Order ID Number: 9902000411/412 Date: 3/16/99
Project Name: Shell Westgate Page #18

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Benzidine		<2.5	mg/kg	2.5	03/03/99	0045	0036
Hexachlorobenzene		<0.25	mg/kg	0.25	03/03/99	0045	0036
Pentachlorobenzene		<0.25	mg/kg	0.25	03/03/99	0045	0036
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	03/03/99	0045	0036
Hexachloroethane		<0.25	mg/kg	0.25	03/03/99	0045	0036
2,4-dichlorphenol		<1.25	mg/kg	1.25	03/03/99	0045	0036
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	03/03/99	0045	0036
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	03/03/99	0045	0036
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	03/03/99	0045	0036
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	03/03/99	0045	0036
bis (chloromethyl) ether		<1.25	mg/kg	1.25	03/03/99	0045	0036
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	03/03/99	0045	0036
2,4-dinitrotoluene		<0.25	mg/kg	0.25	03/03/99	0045	0036
Diphenylhydrazine		<1.25	mg/kg	1.25	03/03/99	0045	0036
Hexachlorobutadiene		<0.25	mg/kg	0.25	03/03/99	0045	0036
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	03/03/99	0045	0036
Isophorone		<1.25	mg/kg	1.25	03/03/99	0045	0036
Nitrobenzene		<0.25	mg/kg	0.25	03/03/99	0045	0036
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	03/03/99	0045	0036
2,4-dinitrophenols		<1.25	mg/kg	1.25	03/03/99	0045	0036
[redacted]-nitrosodiethylamine		<0.25	mg/kg	0.25	03/03/99	0045	0036
[redacted]-nitrosodimethylamine		<0.25	mg/kg	0.25	03/03/99	0045	0036
N-nitrosodibutylamine		<1.25	mg/kg	1.25	03/03/99	0045	0036
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	03/03/99	0045	0036
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	03/03/99	0045	0036
Pentachlorophenol		<1.25	mg/kg	1.25	03/03/99	0045	0036
Dibutyl phthalate		<0.25	mg/kg	0.25	03/03/99	0045	0036
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	03/03/99	0045	0036
Diethyl phthalate		<0.25	mg/kg	0.25	03/03/99	0045	0036
Dimethyl phthalate		<0.25	mg/kg	0.25	03/03/99	0045	0036
Anthracene		<0.25	mg/kg	0.25	03/03/99	0045	0036
3,4-Benzofluoranthene		<0.25	mg/kg	0.25	03/03/99	0045	0036
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	03/03/99	0045	0036
Fluoranthene		<0.25	mg/kg	0.25	03/03/99	0045	0036
Fluorene		<0.25	mg/kg	0.25	03/03/99	0045	0036
Phenanthrene		<0.25	mg/kg	0.25	03/03/99	0045	0036
Pyrene		<0.25	mg/kg	0.25	03/03/99	0045	0036
Naphthalene		<0.25	mg/kg	0.25	03/03/99	0045	0036
1-methylnaphthalene		<0.25	mg/kg	0.25	03/03/99	0045	0036
2-methylnaphthalene		<0.25	mg/kg	0.25	03/03/99	0045	0036
Benzo-a-pyrene		<0.25	mg/kg	0.25	03/03/99	0045	0036
Phenol		<0.25	mg/kg	0.25	03/03/99	0045	0036
Surr. 2-Fluorophenol		68	%	25-121	03/03/99	0045	0036
Surr. Phenol-d6		78	%	24-113	03/03/99	0045	0036
Surr. Nitrobenzene-d5		59	%	23-120	03/03/99	0045	0036
Surr. 2-Fluorobiphenyl		69	%	30-115	03/03/99	0045	0036
Surr. 2,4,6-Tribromophenol		71	%	19-122	03/03/99	0045	0036
Surr. Terphenyl-d14		87	%	28-137	03/03/99	0045	0036

Quality Control Report
Blanks

Order ID Number: 9902000411/412 Date: 3/16/99
Project Name: Shell Westgate Page #19
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
PCB		<0.1	mg/kg	0.1	03/05/99	0053	0045
Arsenic		<0.50	mg/kg	0.50	03/02/99	0052	0044
Barium		<0.50	mg/kg	0.50	03/02/99	0052	0044
Cadmium		<0.10	mg/kg	0.10	03/02/99	0052	0044
Chromium		<0.50	mg/kg	0.50	03/02/99	0052	0044
Lead		<0.20	mg/kg	0.20	03/02/99	0052	0044
Total Mercury		<0.10	mg/kg	0.10	03/01/99	0044	0035
Selenium		<0.50	mg/kg	0.50	03/02/99	0052	0044
Silver		<0.50	mg/kg	0.50	03/02/99	0052	0044
Uranium		<5.0	mg/kg	5.0	03/02/99	0052	0044
Copper		<1.0	mg/kg	1.0	03/02/99	0052	0044
Iron		<2.0	mg/kg	2.0	03/02/99	0052	0044
Manganese		<1.0	mg/kg	1.0	03/02/99	0052	0044
Zinc		<2.0	mg/kg	2.0	03/02/99	0052	0044
Aluminum		<10	mg/kg	10	03/02/99	0052	0044
Boron		<10	mg/kg	10	03/02/99	0052	0044
Cobalt		<0.50	mg/kg	0.50	03/02/99	0052	0044
Molybdenum		<1.0	mg/kg	1.0	03/02/99	0052	0044
Nickel		<0.50	mg/kg	0.50	03/02/99	0052	0044
Cyanide		<0.20	mg/kg	0.20	03/03/99	0049	0041
Fluoride		<0.1	mg/kg	0.1	03/02/99	0051	0043
Nitrate		<0.2	mg/kg	0.2	03/02/99	0051	0043
Chloride		<0.5	mg/kg	0.5	03/02/99	0051	0043
Sulfate		<0.5	mg/kg	0.5	03/02/99	0051	0043
Total Dissolved Solids		18	mg/kg	10	03/01/99	0047	0039
TRPHC		<10.0	mg/kg	10	03/01/99	5599	5737
Total Phenols		<0.50	mg/kg	0.50	03/02/99	0048	0040

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/16/99
Page #20

Order ID Number: 9902000411/412
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	95	95	03/01/99	0038
1,1-Dichloroethene		100	ug/L	93	93	03/01/99	0038
Chloroform		100	ug/L	96	96	03/01/99	0038
1,2-Dichloropropane		100	ug/L	97	97	03/01/99	0038
Toluene		100	ug/L	93	93	03/01/99	0038
Chlorobenzene		100	ug/L	92	92	03/01/99	0038
Ethylbenzene		100	ug/L	94	94	03/01/99	0038
Surr. Dibromofluoromethane		100	%	102	102	03/01/99	0038
Surr. Toluene-d8		100	%	99	99	03/01/99	0038
Surr. 4-Bromofluorobenzene		100	%	104	104	03/01/99	0038
Vinyl chloride		100	ug/L	109	109	03/03/99	0037
[redacted]Dichloroethene		100	ug/L	90	90	03/03/99	0037
[redacted]oroform		100	ug/L	101	101	03/03/99	0037
1,2-Dichloropropane		100	ug/L	107	107	03/03/99	0037
Toluene		100	ug/L	103	103	03/03/99	0037
Chlorobenzene		100	ug/L	107	107	03/03/99	0037
Ethylbenzene		100	ug/L	106	106	03/03/99	0037
Surr. Dibromofluoromethane		100	%	99	99	03/03/99	0037
Surr. Toluene-d8		100	%	111	111	03/03/99	0037
Surr. 4-Bromofluorobenzene		100	%	98	98	03/03/99	0037
Phenol		80	mg/L	87	109	03/03/99	0036
1,4-Dichlorobenzene		80	mg/L	72	90	03/03/99	0036
2-nitrophenol		80	mg/L	93	116	03/03/99	0036
2,4-Dichlorophenol		80	mg/L	88	110	03/03/99	0036
Hexachlorobutadiene		80	mg/L	71	89	03/03/99	0036
4-Chloro-3-methylphenol		80	mg/L	87	109	03/03/99	0036
2,4,6-Trichlorophenol		80	mg/L	91	114	03/03/99	0036
Acenaphthene		80	mg/L	73	91	03/03/99	0036
n-Nitrosodiphenylamine		80	mg/L	74	93	03/03/99	0036
Pentachlorophenol		80	mg/L	95	119	03/03/99	0036
Fluoranthene		80	mg/L	71	89	03/03/99	0036
Di-n-octylphthalate		80	mg/L	70	88	03/03/99	0036
Benzo(a)pyrene		80	mg/L	76	95	03/03/99	0036
Surr. 2-Fluorophenol		80	mg/L	87	109	03/03/99	0036
Surr. Phenol-d6		80	mg/L	88	110	03/03/99	0036
Surr. Nitroobenzene-d5		80	mg/L	77	96	03/03/99	0036
[redacted]r. 2-Fluorobiphenyl		80	mg/L	75	94	03/03/99	0036
[redacted]. 2,4,6-Tribromophenol		80	mg/L	85	106	03/03/99	0036
Surr. Terphenyl-d14		80	mg/L	67	84	03/03/99	0036

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/16/99

Order ID Number: 9902000411/412
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
PCB		0.4	mg/L	0.37	93	03/05/99	0045
Arsenic		1.0	mg/L	0.99	99	03/02/99	0044
Barium		1.0	mg/L	1.0	100	03/02/99	0044
Cadmium		1.0	mg/L	1.0	100	03/02/99	0044
Chromium		1.0	mg/L	1.0	100	03/02/99	0044
Lead		1.0	mg/L	1.0	100	03/02/99	0044
Total Mercury		5.0	mg/L	5.3	106	03/01/99	0035
Selenium		1.0	mg/L	0.99	99	03/02/99	0044
Silver		0.20	mg/L	0.20	100	03/02/99	0044
Uranium		1.0	mg/L	1.0	100	03/02/99	0044
Copper		1.0	mg/L	0.99	99	03/02/99	0044
[illegible]n		1.0	mg/L	1.0	100	03/02/99	0044
[illegible]anganese		1.0	mg/L	1.0	100	03/02/99	0044
Zinc		1.0	mg/L	1.0	100	03/02/99	0044
Aluminum		1.0	mg/L	0.99	99	03/02/99	0044
Boron		1.0	mg/L	0.99	99	03/02/99	0044
Cobalt		1.0	mg/L	1.0	100	03/02/99	0044
Molybdenum		1.0	mg/L	1.0	100	03/02/99	0044
Nickel		1.0	mg/L	0.99	99	03/02/99	0044
Cyanide		0.120	mg/L	0.128	107	03/03/99	0041
Fluoride		2.5	mg/L	2.425	97	03/02/99	0043
Nitrate		5.0	mg/L	4.845	97	03/02/99	0043
Chloride		12.5	mg/L	12.17	97	03/02/99	0043
Sulfate		12.5	mg/L	12.28	98	03/02/99	0043
TDS		1000	mg/L	955	96	03/01/99	0039
pH		7.0	s.u.	7.0	100	02/26/99	0042
TRPHC		100	mg/L	98	98	03/01/99	5737
Total Phenol		0.80	mg/L	0.788	99	03/02/99	0040

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/16/99

Order ID Number: 9902000411/412
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	S/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene	*	ug/L	<1	100	84	84	100	81	81	4	3/1/99		0038
Benzene	*	ug/L	<1	100	92	92	100	88	88	4	3/1/99		0038
Trichloroethene	*	ug/L	<1	100	89	89	100	85	85	5	3/1/99		0038
Toluene	*	ug/L	<1	100	92	92	100	88	88	4	3/1/99		0038
Chlorobenzene	*	ug/L	<1	100	94	94	100	89	89	5	3/1/99		0038
Surr. Dibromofluoromethane	*	%	103	100	103	103	100	103	103	0	3/1/99		0038
Surr. Toluene-d8	*	%	100	100	101	101	100	100	100	1	3/1/99		0038
Surr. 4-Bromofluorobenzene	*	%	102	100	103	103	100	103	103	0	3/1/99		0038
1,1-Dichloroethene		ug/kg	<25	100	94	94	100	88	88	7	3/3/99		0037
Benzene		ug/kg	<25	100	117	117	100	112	112	4	3/3/99		0037
Trichloroethene		ug/kg	<25	100	117	117	100	111	111	5	3/3/99		0037
Toluene		ug/kg	<25	100	117	117	100	112	112	4	3/3/99		0037
Chlorobenzene		ug/kg	<25	100	117	117	100	113	113	3	3/3/99		0037
Surr. Dibromofluoromethane		%	103	100	102	102	100	102	102	0	3/3/99		0037
Surr. Toluene-d8		%	108	100	108	108	100	108	108	0	3/3/99		0037
Surr. 4-Bromofluorobenzene		%	103	100	101	101	100	100	100	1	3/3/99		0037

*LCS's used for spkie and spike duplicate.

Order ID Number: 9902000411/412
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/16/99
Page #23

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	S/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Phenol	*	mg/kg	<0.25	100	86	86	100	81	81	6	3/3/99	0045	0036
2-Chlorophenol	*	mg/kg	<1.25	100	76	76	100	73	73	4	3/3/99	0045	0036
1,4-Dichlorobenzene	*	mg/kg	<0.25	100	61	61	100	60	60	2	3/3/99	0045	0036
n-Nitrosodi-n-propylamine	*	mg/kg	<0.25	100	72	72	100	63	63	13	3/3/99	0045	0036
1,2,4-trichlorobenzene	*	mg/kg	<0.25	100	63	63	100	62	62	2	3/3/99	0045	0036
4-Chloro-3-methylphenol	*	mg/kg	<1.25	100	93	93	100	89	89	4	3/3/99	0045	0036
Acenaphthene	*	mg/kg	<0.25	100	72	72	100	71	71	1	3/3/99	0045	0036
4-Nitrophenol	*	mg/kg	<1.25	100	105	105	100	107	107	2	3/3/99	0045	0036
2,4-Dinitrotoluene	*	mg/kg	<0.25	100	81	81	100	84	84	4	3/3/99	0045	0036
Pentachlorophenol	*	mg/kg	<1.25	100	83	83	100	84	84	1	3/3/99	0045	0036
Pyrene	*	mg/kg	<0.25	100	77	77	100	77	77	0	3/3/99	0045	0036
Surr. 2-Fluorophenol	*	%	68	100	76	76	100	64	64	17	3/3/99	0045	0036
Surr. Phenol-d6	*	%	78	100	97	97	100	75	75	26	3/3/99	0045	0036
Surr. Nitrobenzene-d5	*	%	59	100	79	79	100	65	65	19	3/3/99	0045	0036
Surr. 2-Fluorobiphenyl	*	%	69	100	81	81	100	66	66	20	3/3/99	0045	0036
Surr. 2,4,6-Tribromophenol	*	%	71	100	102	102	100	87	87	16	3/3/99	0045	0036
Surr. Terphenyl-d14	*	%	87	100	90	90	100	74	74	20	2/24/99	0060	0055
PCB		mg/kg	<0.1	0.25	0.24	96	0.25	0.24	96	0	3/5/99	0053	0045
Arsenic		mg/kg	<0.50	200	182	91	200	178	89	2	3/2/99	0052	0044
Barium		mg/kg	7.6	200	185	89	200	182	87	2	3/2/99	0052	0044
Cadmium		mg/kg	<0.10	200	165	83	200	163	82	1	3/2/99	0052	0044
Chromium		mg/kg	2.1	200	178	88	200	176	87	1	3/2/99	0052	0044
Lead		mg/kg	1.6	200	172	85	200	169	84	1	3/2/99	0052	0044
Total Mercury		mg/kg	0.11	2.5	2.6	100	2.5	2.2	84	17	3/1/99	0044	0035
Selenium		mg/kg	<0.50	200	175	88	200	172	86	2	3/2/99	0052	0044
Silver		mg/kg	<0.50	25	20	80	25	20	80	0	3/2/99	0052	0044
Uranium		mg/kg	<5.0	200	205	103	200	200	100	2	3/2/99	0052	0044
Copper		mg/kg	<1.0	200	178	89	200	175	88	2	3/2/99	0052	0044
Iron	*	mg/kg	<2.0	200	151	76	200	148	74	2	3/2/99	0052	0044
Manganese		mg/kg	15	200	193	89	200	191	88	1	3/2/99	0052	0044
Zinc		mg/kg	5.0	200	179	87	200	175	85	2	3/2/99	0052	0044
Aluminum	*	mg/kg	<10	200	223	112	200	237	119	6	3/2/99	0052	0044
Boron		mg/kg	14	200	184	85	200	183	85	0	3/2/99	0052	0044
Cobalt		mg/kg	<0.50	200	174	87	200	171	86	2	3/2/99	0052	0044
Molybdenum		mg/kg	<1.0	200	173	87	200	170	85	2	3/2/99	0052	0044
Nickel		mg/kg	1.3	200	181	90	200	178	88	2	3/2/99	0052	0044
Cyanide	*	mg/kg	<0.20	3.0	2.65	88	3.0	2.63	88	0	3/3/99	0049	0041
Fluoride		mg/kg	2.1	5.0	7.13	101	5.0	7.08	100	1	3/2/99	0051	0043
Nitrate		mg/kg	2.1	10	11.43	93	10	11.40	93	0	3/2/99	0051	0043
Chloride		mg/kg	12	25	35.19	93	25	34.74	91	2	3/2/99	0051	0043
Sulfate		mg/kg	50	25	73.94	96	25	73.83	92	1	3/2/99	0051	0043
TRPHC		mg/kg	<10.0	250	252	101	250	269	108	7	3/1/99	5599	5737
Total Phenol		mg/kg	<0.50	5.0	5.05	99	5.0	5.12	102	1	2/22/99	0067	0061

*LCS's used for spike and spike dulplicate.

Quality Control Report
Duplicate

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/16/99
Page #24

Order ID Number: 9902000411/412
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Duplicate Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	8.7	8.6	1	2/26/99	0050	0042
TDS		mg/kg	265	240	10	3/1/99	0047	0039

AMERICAN RADIATION SERVICES, INC.

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ARS Tracking Number:	ARS-99-0170	**P.O. Number:**	N/A
Client I.D.:	119627	**ARS Sample I.D.:**	ARS-99-0543
Date Sampled:	2/25/99	**Date Received:**	3/2/99
Time Sampled:	1015	**Time Received**	1545
Type of Sample:	Solid	**Date of Report**	3/3/99

Analysis Description	Analysis Result	Analysis Error ±2σ	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	BDL	N/A	1.04	pCi/gm	EPA 901.1M	03/03/99 1406	cc
Ra-228	0.21	0.19	0.10	pCi/gm	EPA 901.1M	03/03/99 1406	cc
Pb-210	BDL	N/A	1.38	pCi/gm	EPA 901.1M	03/03/99 1406	cc
Total Activity	5.39	N/A	N/A	pCi/gm	EPA 901.1M	03/03/99 1406	cc

Notes:

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

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ARS Tracking Number:	ARS-99-0170	**P.O. Number:**	N/A
Client I.D.:	119628	**ARS Sample I.D.:**	ARS-99-0544
Date Sampled:	2/25/99	**Date Received:**	3/2/99
Time Sampled:	1130	**Time Received**	1545
Type of Sample:	Solid	**Date of Report**	3/3/99

Analysis Description	Analysis Result	Analysis Error $\pm 2\sigma$	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	1.70	1.47	0.76	pCi/gm	EPA 901.1M	03/03/99 1346	cc
Ra-228	BDL	N/A	0.17	pCi/gm	EPA 901.1M	03/03/99 1346	cc
Pb-210	BDL	N/A	1.00	pCi/gm	EPA 901.1M	03/03/99 1346	cc
Total Activity	3.70	N/A	N/A	pCi/gm	EPA 901.1M	03/03/99 1346	cc

Notes:

Quality Assurance Review

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ARS Tracking Number:	ARS-99-0170	**P.O. Number:**	N/A
Client I.D.:	119629	**ARS Sample I.D.:**	ARS-99-0545
Date Sampled:	2/25/99	**Date Received:**	3/2/99
Time Sampled:	1358	**Time Received**	1545
Type of Sample:	Solid	**Date of Report**	3/3/99

Analysis Description	Analysis Result	Analysis Error $\pm 2\sigma$	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	2.02	1.48	0.75	pCi/gm	EPA 901.1M	03/03/99 1233	cc
Ra-228	BDL	N/A	0.17	pCi/gm	EPA 901.1M	03/03/99 1233	cc
Pb-210	BDL	N/A	1.05	pCi/gm	EPA 901.1M	03/03/99 1233	cc
Total Activity	4.12	N/A	N/A	pCi/gm	EPA 901.1M	03/03/99 1233	cc

Notes:

Quality Assurance Review

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ARS Tracking Number:	ARS-99-0170	**P.O. Number:**	N/A
Client I.D.:	119630	**ARS Sample I.D.:**	ARS-99-0546
Date Sampled:	2/25/99	**Date Received:**	3/2/99
Time Sampled:	1528	**Time Received**	1545
Type of Sample:	Solid	**Date of Report**	3/3/99

Analysis Description	Analysis Result	Analysis Error $\pm 2\sigma$	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	4.77	2.88	1.19	pCi/gm	EPA 901.1M	03/03/99 1304	cc
Ra-228	0.88	0.31	0.11	pCi/gm	EPA 901.1M	03/03/99 1304	cc
Pb-210	4.72	2.83	1.22	pCi/gm	EPA 901.1M	03/03/99 1304	cc
Total Activity	27.31	N/A	N/A	pCi/gm	EPA 901.1M	03/03/99 1304	cc

Notes:

Quality Assurance Review

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-
Attn: Nell Green

Report Date: *08-Mar-99*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Our Lab#: MEL99-02785 **Your Sample ID:** 119627
Date Logged In: 3/3/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:** Shell
Project #: **Date Submitted to Lab:** 3/2/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/25/99

EPA Method	Analyst	Prep Date	Analysis Date
160.3	DJF		3/1/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	87.1 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	3/3/99	3/5/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 mg/kg	0.02
57-74-9	Chlordane(Total)	< 0.10 mg/kg	0.1
50-29-3	4,4'-DDT	< 0.03 mg/kg	0.03
60-57-1	Dieldrin	< 0.02 mg/kg	0.02
959-98-8	Endosulfan I	< 0.03 mg/kg	0.03
72-20-8	Endrin	< 0.05 mg/kg	0.05
76-44-8	Heptachlor	< 0.03 mg/kg	0.03

6878 S. STATE ROUTE 100 • P.O. BOX 76 • MELMORE, OH 44845-9999
PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-02785	8081	Decachlorobiphenyl (Surr)	106 %R	41	129
MEL99-02785	8081	Tetrachloro-m-xylene (Surr)	79 %R	27	119

End of Report

Report Approved By: Wade E. Bayer

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Your Sample ID: 119627

Lab Number MEL99-02785

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565 **Report Date:** *08-Mar-99*

Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Attn: Nell Green

Our Lab#: MEL99-02786 **Your Sample ID:** 119628
Date Logged In: 3/3/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:** Shell
Project #: **Date Submitted to Lab:** 3/2/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/25/99

EPA Method	Analyst	Prep Date	Analysis Date
160.3	DJF		3/1/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	96.1 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	3/3/99	3/5/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 mg/kg	0.02
57-74-9	Chlordane(Total)	< 0.10 mg/kg	0.1
50-29-3	4,4'-DDT	< 0.03 mg/kg	0.03
60-57-1	Dieldrin	< 0.02 mg/kg	0.02
959-98-8	Endosulfan I	< 0.03 mg/kg	0.03
72-20-8	Endrin	< 0.05 mg/kg	0.05
76-44-8	Heptachlor	< 0.03 mg/kg	0.03

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-02786	8081	Decachlorobiphenyl (Surr)	102 %R	41	129
MEL99-02786	8081	Tetrachloro-m-xylene (Surr)	80 %R	27	119

End of Report

Report Approved By: Wade E. Bayer

Wade E. Bayer

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Your Sample ID: 119628

Lab Number MEL99-02786

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PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-
Attn: Nell Green

Report Date: *08-Mar-99*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Our Lab#: MEL99-02787 **Your Sample ID:** 119629
Date Logged In: 3/3/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:** Shell
Project #: **Date Submitted to Lab:** 3/2/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/25/99

EPA Method	Analyst	Prep Date	Analysis Date
160.3	DJF		3/1/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	86.7 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	3/3/99	3/5/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 mg/kg	0.02
57-74-9	Chlordane(Total)	< 0.10 mg/kg	0.1
50-29-3	4,4'-DDT	< 0.03 mg/kg	0.03
60-57-1	Dieldrin	< 0.02 mg/kg	0.02
959-98-8	Endosulfan I	< 0.03 mg/kg	0.03
72-20-8	Endrin	< 0.05 mg/kg	0.05
76-44-8	Heptachlor	< 0.03 mg/kg	0.03

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-02787	8081	Decachlorobiphenyl (Surr)	102 %R	41	129
MEL99-02787	8081	Tetrachloro-m-xylene (Surr)	75 %R	27	119

End of Report

Report Approved By: Wade E. Bayer

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Your Sample ID: 119629

Lab Number MEL99-02787

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PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-
Attn: Nell Green

Report Date: *08-Mar-99*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Our Lab#: MEL99-02788 **Your Sample ID:** 119630
Date Logged In: 3/3/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:** Shell
Project #: **Date Submitted to Lab:** 3/2/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/25/99

EPA Method	Analyst	Prep Date	Analysis Date
160.3	DJF		3/1/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	96.7 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	3/3/99	3/5/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 mg/kg	0.02
57-74-9	Chlordane(Total)	< 0.10 mg/kg	0.1
50-29-3	4,4'-DDT	< 0.03 mg/kg	0.03
60-57-1	Dieldrin	< 0.02 mg/kg	0.02
959-98-8	Endosulfan I	< 0.03 mg/kg	0.03
72-20-8	Endrin	< 0.05 mg/kg	0.05
76-44-8	Heptachlor	< 0.03 mg/kg	0.03

6878 S. STATE ROUTE 100 • P.O. BOX 76 • MELMORE, OH 44845-9999
PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-02788	8081	Decachlorobiphenyl (Surr)	103 %R	41	129
MEL99-02788	8081	Tetrachloro-m-xylene (Surr)	79 %R	27	119

End of Report

Report Approved By: Wade E. Bayer

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Your Sample ID: 119630

Lab Number MEL99-02788

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119627-32

Page 1 of 1

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 411/412

Company Name: BBC International — Phone #: 505 397-6388

Address: (Street, City, Zip) 1324 W. Marland Blvd — Fax #: 505 397-0397

Contact Person: Cliff Brunson

Invoice to: (If different from above)

Project #: — Project Name: Shell Westgate

Project Location: Hobbs NM — Sampler Signature: Shawn E. Hall

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Internal	SAMPLING: DATE	TIME
119627	TSB 18 33-35	1	VOA	●	✓					✓		✓	2/25	10:00
~~27~~	TSB 18 33-35	5	40z		✓					✓				10:00
~~28~~	TSB 18 43-45	1	Voa		✓					✓	✓			11:30
~~29~~ 30	TSB 18 43-45	5	40z		✓					✓				11:30
~~24~~	TSB 19 8-10	1	Voa		✓					✓	✓			1:58
~~25~~	TSB 19 8-10	5	40z		✓					✓				1:58
30	TSB 19 38-40	1	Voa		✓					✓	✓			3:28
	TSB 19 38-40	5	40z		✓					✓				3:28
31	Trip Blanks	2	Voa	✓						✓				
32	Field Blank	2	Voa	✓						✓				

ANALYSIS REQUEST

(Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Full Suite *	Turn Around Time if different from standard	Hold
										✓					✓		
										✓							

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Shawn E. Hall	2/25/99	4:00			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: Vicki Wyatt	Date: 2-26-99	Time: 9:00

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

LAB USE ONLY

Intact Y / N

Headspace Y / N

Temp 3 °

Log-in Review MS

REMARKS:

* See attached

Carrier # Bus 902 071 9884

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/17/99
Page: # 1

Project Name: Shell Westgate
Project Location: Hobbs, NM
Order ID Number: 9902000455/456

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
119858	TMW 5 (48-50)	Soil	02/26/99	11:20 a.m.	02/27/99
119859	TMW 5 (63-65)	Soil	02/26/99	12:23 a.m.	02/27/99
119860	Field Blank	Water	02/26/99		02/27/99
119861	Trip Blank	Water	02/26/99		02/27/99

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

This report shall not be reproduced except in its entirety, without written approval of the laboratory.

These results represent only the samples received in the laboratory.

This report consists of a total of 24 pages.

*119858 elevated reporting limits for semi-volatiles and pesticides due to hydrocarbons present.

Dr. Blair Leftwich
Director

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/17/99

Order ID Number: 9902000455/456
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TMW 5 (48-50)

Sample Number: 119858

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<125	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	125
Acrylonitrile		<125	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	125
Benzene		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Carbon tetrachloride		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Chlorobenzene		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
1,2-dichloroethane		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
1,1,2,2-tetrachloroethane		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
1,1,1-trichloroethane		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
1,1,2-trichloroethane		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
1,1,2-trichloroethylene		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Chloroform		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Dichlorobenzene		<50	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	50
1,1-dichloroethylene		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Dichloropropenes		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Ethylbenzene		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Bromodichloromethane		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Bromomethane		<125	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	125
Chloromethane		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Dichlorodifluoromethane		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Dichloromethane		<125	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	125
Trichlorofluoromethane		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Tetrachloroethylene		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Toluene		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Trichloroethylene		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Vinyl chloride		<50	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	50
m,p-xylene		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
o-xylene		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
1,1-dichloroethane		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Ethylene dibromide		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
cis-1,2-dichlorethylene		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
trans-1,2-dichloroethylene		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Methylene chloride		<125	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	125
Surr. Dibromofluoromethane		97	%	S-8260B	3/9/99	3/9/99	JG		0073	72-130
Surr. Toluene-d8		102	%	S-8260B	3/9/99	3/9/99	JG		0073	77-127
Surr. 4-Bromofluorobenzene		98	%	S-8260B	3/9/99	3/9/99	JG		0073	72-131

Order ID Number: 9902000455/456 Date: 3/17/99 Sample Number: 119858
Field Code: TMW 5 (48-50) Page # 3

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	*ERL	<7.5	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	7.5
Hexachlorobenzene	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
Pentachlorobenzene	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
1,2,4,5-tetrachlorobenzene	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
Hexachloroethane	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
2,4-dichlorphenol	*ERL	<3.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	3.75
2,4,5-trichlorophenol	*ERL	<3.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	3.75
2,4,6-trichlorophenol	*ERL	<3.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	3.75
bis (2-chloroethyl) ether	*ERL	<3.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	3.75
bis (2-chloroisopropyl) ether	*ERL	<3.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	3.75
bis (chloromethyl) ether	*ERL	<3.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	3.75
3,3-dichlorobenzidine	*ERL	<3.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	3.75
2,4-dinitrotoluene	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
Diphenylhydrazine	*ERL	<3.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	3.75
Hexachlorobutadiene	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
Hexachlorocyclopentadiene	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
Isophorone	*ERL	<3.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	3.75
Nitrobenzene	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
2,4-dinitro-o-cresol	*ERL	<3.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	3.75
2,4-dinitrophenols	*ERL	<3.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	3.75
n-nitrosodiethylamine	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
N-nitrosodimethylamine	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
N-nitrosodibutylamine	*ERL	<3.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	3.75
N-nitrosodiphenylamine	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
N-nitrosopyrrolidine	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
Pentachlorophenol	*ERL	<3.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	3.75
Dibutyl phthalate	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
di-2-ethylhexyl phthalate	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
Diethyl phthalate	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
Dimethyl phthalate	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
Anthracene	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
3,4-Benzofluoranthene	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
Benzo(k)fluoranthene	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
Fluoranthene	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
Fluorene	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
Phenanthrene	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
Pyrene	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
Naphthalene	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
1-methylnaphthalene	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
2-methylnaphthalene	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
Benzo-a-pyrene	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
Phenol	*ERL	<0.75	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.75
Surr. 2-Fluorophenol		55	%	8270C	3/2/99	3/3/99	DG	0080	0075	25-121
Surr. Phenol-d6		69	%	8270C	3/2/99	3/3/99	DG	0080	0075	24-113
Surr. Nitrobenzene-d5		59	%	8270C	3/2/99	3/3/99	DG	0080	0075	23-120
Surr. 2-Fluorobiphenyl		58	%	8270C	3/2/99	3/3/99	DG	0080	0075	30-115
Surr. 2,4,6-Tribromophenol		63	%	8270C	3/2/99	3/3/99	DG	0080	0075	19-122
Surr. Terphenyl-d14		52	%	8270C	3/2/99	3/3/99	DG	0080	0075	28-137

*Elevated reporting limit due to hydrocarbons present.

Order ID Number: 9902000455/456
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/17/99
Page # 4

Sample Number: 119858

Field Code: TMW 5 (48-50)

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin	*ERL	<0.20	mg/kg	8081	3/3/99	3/8/99	SH			0.20
Chlordane	*ERL	<1.0	mg/kg	8081	3/3/99	3/8/99	SH			1.0
DDT	*ERL	<0.30	mg/kg	8081	3/3/99	3/8/99	SH			0.30
Dieldrin	*ERL	<0.20	mg/kg	8081	3/3/99	3/8/99	SH			0.20
Endosulfan	*ERL	<0.30	mg/kg	8081	3/3/99	3/8/99	SH			0.30
Endrin	*ERL	<0.50	mg/kg	8081	3/3/99	3/8/99	SH			0.50
Heptachlor	*ERL	<0.30	mg/kg	8081	3/3/99	3/8/99	SH			0.30
PCB's		<0.1	mg/kg	8082	3/3/99	3/5/99	SO	0081	0076	0.1
Arsenic		<0.50	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	0.50
Barium		16	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	0.50
Cadmium		<0.10	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	0.10
Chromium		3.6	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	0.50
Lead		0.31	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	0.20
Total Mercury		0.15	mg/kg	7471A	3/1/99	3/1/99	BP	0084	0078	0.10
Selenium		<0.50	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	0.50
Silver		<0.50	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	0.50
Uranium		<5.0	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	5.0
Copper		1.5	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	1.0
Iron		2,710	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	2.0
Manganese		19	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	1.0
Zinc		4.8	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	2.0
Aluminum		2,050	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	10
Boron		21	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	10
Cobalt		<0.50	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	0.50
Molybdenum		<1.0	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	1.0
Nickel		2.1	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	0.50
Cyanide		<0.20	mg/kg	SM 4500CN C,E	3/3/99	3/3/99	MD	0085	0079	0.2
Fluoride		1.9	mg/kg	300.0	3/2/99	3/2/99	JS	0086	0080	0.1
Nitrate		1.5	mg/kg	300.0	3/2/99	3/2/99	JS	0086	0080	0.2
Chloride		12	mg/kg	300.0	3/2/99	3/2/99	JS	0086	0080	0.5
Sulfate		53	mg/kg	300.0	3/2/99	3/2/99	JS	0086	0080	0.5
TDS		310	mg/kg	160.1	3/1/99	3/1/99	SA	0087	0081	10
pH		8.8	s.u.	150.1	3/2/99	3/2/99	RS	0088	0082	---
TRPHC		5,610	mg/kg	418.1	3/3/99	3/3/99	MF	5623	5768	10
Total Phenol		0.858	mg/kg	SM 5530 A,D	3/2/99	3/2/99	MD	0089	0083	0.50
Total Radium		3.77	pCi/gm	901.1M		3/3/99	CC			

*ERL-elevated reporting limit due to hydrocarbons present.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/17/99
Page #5

Order ID Number: 9902000455/456
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TMW 5 (63-65) Sample Number: 119859

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<125	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	125
Acrylonitrile		<125	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	125
Benzene		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Carbon tetrachloride		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Chlorobenzene		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
1,2-dichloroethane		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
1,1,2,2-tetrachloroethane		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
1,1,1-trichloroethane		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
1,1,2-trichloroethane		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
1,1,2-trichloroethylene		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Chloroform		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Dichlorobenzene		<50	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	50
1,1-dichloroethylene		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Dichloropropenes		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Ethylbenzene		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Bromodichloromethane		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Bromomethane		<125	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	125
Chloromethane		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Dichlorodifluoromethane		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Dichloromethane		<125	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	125
Trichlorofluoromethane		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Tetrachloroethylene		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Toluene		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Trichloroethylene		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Vinyl chloride		<50	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	50
m,p-xylene		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
o-xylene		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
1,1-dichloroethane		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Ethylene dibromide		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
cis-1,2-dichlorethylene		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
trans-1,2-dichloroethylene		<25	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	25
Methylene chloride		<125	ug/kg	S-8260B	3/9/99	3/9/99	JG		0073	125
Surr. Dibromofluoromethane		94	%	S-8260B	3/9/99	3/9/99	JG		0073	72-130
Surr. Toluene-d8		105	%	S-8260B	3/9/99	3/9/99	JG		0073	77-127
Surr. 4-Bromofluorobenzene		99	%	S-8260B	3/9/99	3/9/99	JG		0073	72-131

Order ID Number: 9902000455/456 Date: 3/17/99 Page #6

Field Code: TMW 5 (63-65) Sample Number: 119859

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<2.5	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	2.5
Hexachlorobenzene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
Pentachlorobenzene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
Hexachloroethane		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	1.25
2,4,5-trichlorophenol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	1.25
2,4,6-trichlorophenol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	1.25
bis (2-chloroethyl) ether		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	1.25
bis (2-chloroisopropyl) ether		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	1.25
bis (chloromethyl) ether		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	1.25
3,3-dichlorobenzidine		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	1.25
2,4-dinitrotoluene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
Diphenylhydrazine		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	1.25
Hexachlorobutadiene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
Hexachlorocyclopentadiene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
Isophorone		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	1.25
Nitrobenzene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
2,4-dinitro-o-cresol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	1.25
n-nitrosodiethylamine		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
N-nitrosodimethylamine		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
N-nitrosodibutylamine		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	1.25
N-nitrosodiphenylamine		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
N-nitrosopyrrolidine		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
Pentachlorophenol		<1.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	1.25
Dibutyl phthalate		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
di-2-ethylhexyl phthalate		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
Diethyl phthalate		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
Dimethyl phthalate		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
Anthracene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
3,4-Benzofluoranthene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
Benzo(k)fluoranthene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
Fluoranthene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
Fluorene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
Phenanthrene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
Pyrene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
Naphthalene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
1-methylnaphthalene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
2-methylnaphthalene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
Benzo-a-pyrene		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
Phenol		<0.25	mg/kg	8270C	3/2/99	3/3/99	DG	0080	0075	0.25
Surr. 2-Fluorophenol		42	%	8270C	3/2/99	3/3/99	DG	0080	0075	25-121
Surr. Phenol-d6		44	%	8270C	3/2/99	3/3/99	DG	0080	0075	24-113
Surr. Nitrobenzene-d5		41	%	8270C	3/2/99	3/3/99	DG	0080	0075	23-120
Surr. 2-Fluorobiphenyl		40	%	8270C	3/2/99	3/3/99	DG	0080	0075	30-115
Surr. 2,4,6-Tribromophenol		49	%	8270C	3/2/99	3/3/99	DG	0080	0075	19-122
Surr. Terphenyl-d14		51	%	8270C	3/2/99	3/3/99	DG	0080	0075	28-137

Order ID Number: 9902000455/456 Date: 3/17/99
Project Name: Shell Westgate Page #7
Project Location: Hobbs, NM

Field Code: TMW 5 (63-65) Sample Number: 119859

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin		<0.02	mg/kg	8081	3/3/99	3/8/99	SH			0.02
Chlordane		<0.10	mg/kg	8081	3/3/99	3/8/99	SH			0.10
DDT		<0.03	mg/kg	8081	3/3/99	3/8/99	SH			0.03
Dieldrin		<0.02	mg/kg	8081	3/3/99	3/8/99	SH			0.02
Endosulfan		<0.03	mg/kg	8081	3/3/99	3/8/99	SH			0.03
Endrin		<0.05	mg/kg	8081	3/3/99	3/8/99	SH			0.05
Heptachlor		<0.03	mg/kg	8081	3/3/99	3/8/99	SH			0.03
PCB's		<0.1	mg/kg	8082	3/3/99	3/5/99	SO	0081	0076	0.1
Arsenic		<0.50	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	0.50
Barium		13	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	0.50
Cadmium		<0.10	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	0.10
Chromium		1.5	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	0.50
Lead		0.92	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	0.20
Total Mercury		0.14	mg/kg	7471A	3/1/99	3/1/99	BP	0084	0078	0.10
Selenium		<0.50	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	0.50
Silver		<0.50	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	0.50
Uranium		<5.0	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	5.0
Copper		<1.0	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	1.0
Iron		3,530	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	2.0
Manganese		24	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	1.0
Zinc		5.1	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	2.0
Aluminum		2,750	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	10
Boron		19	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	10
Cobalt		<0.50	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	0.50
Molybdenum		<1.0	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	1.0
Nickel		1.9	mg/kg	6010B	3/2/99	3/2/99	RR	0083	0077	0.50
Cyanide		<0.20	mg/kg	SM 4500CN C,E	3/3/99	3/3/99	MD	0085	0079	0.20
Fluoride		1.5	mg/kg	300.0	3/2/99	3/2/99	JS	0086	0080	0.1
Nitrate		1.5	mg/kg	300.0	3/2/99	3/2/99	JS	0086	0080	0.2
Chloride		17	mg/kg	300.0	3/2/99	3/2/99	JS	0086	0080	0.5
Sulfate		33	mg/kg	300.0	3/2/99	3/2/99	JS	0086	0080	0.5
TDS		290	mg/kg	160.1	3/1/99	3/1/99	SA	0087	0081	10
pH		8.8	s.u.	150.1	3/2/99	3/2/99	RS	0088	0082	---
TRPHC		<10.0	mg/kg	418.1	3/3/99	3/3/99	MF	5623	5768	10
Total Phenol		<0.50	mg/kg	SM 5530 A,D	3/2/99	3/2/99	MD	0089	0083	0.50
Total Radium		2.23	pCi/gm	901.1M		3/3/99	CC			

Analytical Results Report

[redacted]iff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/17/99
Page: #8

Order ID Number: 9902000455/456
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: Field Blank

Sample Number: 119860

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	5
Acrylonitrile		<5	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	5
Benzene		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Carbon tetrachloride		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Chlorobenzene		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
1,2-dichloroethane		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
1,1,1-trichloroethane		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
1,1,2-trichloroethane		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Chloroform		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
[redacted]chlorobenzene		<2	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	2
[redacted],1-dichloroethylene		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Dichloropropenes		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Ethylbenzene		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Bromodichloromethane		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Bromomethane		<5	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	5
Chloromethane		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Dichlorodifluoromethane		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Dichloromethane		<5	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	5
Trichlorofluoromethane		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Tetrachloroethylene		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Toluene		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Trichloroethylene		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Vinyl chloride		<2	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	2
m,p-xylene		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
o-xylene		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
1,1-dichloroethane		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Ethylene dibromide		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Methylene chloride		<5	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	5
Surr. Dibromofluoromethane		106	%	S-8260B	3/4/99	3/4/99	JG		0074	72-130
Surr. Toluene-d8		101	%	S-8260B	3/4/99	3/4/99	JG		0074	77-127
Surr. 4-Bromofluorobenzene		102	%	S-8260B	3/4/99	3/4/99	JG		0074	72-131

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/17/99
Page: #9

Order ID Number: 9902000455/456
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: Trip Blank

Sample Number: 119861

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	5
Acrylonitrile		<5	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	5
Benzene		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Carbon tetrachloride		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Chlorobenzene		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
1,2-dichloroethane		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
1,1,1-trichloroethane		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
1,1,2-trichloroethane		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Chloroform		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Dichlorobenzene		<2	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	2
1,1-dichloroethylene		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Dichloropropenes		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Ethylbenzene		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Bromodichloromethane		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Bromomethane		<5	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	5
Chloromethane		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Dichlorodifluoromethane		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Dichloromethane		<5	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	5
Trichlorofluoromethane		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Tetrachloroethylene		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Toluene		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Trichloroethylene		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Vinyl chloride		<2	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	2
m,p-xylene		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
o-xylene		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
1,1-dichloroethane		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Ethylene dibromide		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	1
Methylene chloride		<5	ug/L	S-8260B	3/4/99	3/4/99	JG		0074	5
Surr. Dibromofluoromethane		107	%	S-8260B	3/4/99	3/4/99	JG		0074	72-130
Surr. Toluene-d8		101	%	S-8260B	3/4/99	3/4/99	JG		0074	77-127
Surr. 4-Bromofluorobenzene		103	%	S-8260B	3/4/99	3/4/99	JG		0074	72-131

Quality Control Report
Blanks

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/17/99

Order ID Number: 9902000455/456
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	3/4/99		0074
Acrylonitrile		<5	ug/L	5	3/4/99		0074
Benzene		<1	ug/L	1	3/4/99		0074
Carbon tetrachloride		<1	ug/L	1	3/4/99		0074
Chlorobenzene		<1	ug/L	1	3/4/99		0074
1,2-dichloroethane		<1	ug/L	1	3/4/99		0074
1,1,2,2-tetrachloroethane		<1	ug/L	1	3/4/99		0074
1,1,1-trichloroethane		<1	ug/L	1	3/4/99		0074
1,1,2-trichloroethane		<1	ug/L	1	3/4/99		0074
1,1,2-trichloroethylene		<1	ug/L	1	3/4/99		0074
Chloroform		<1	ug/L	1	3/4/99		0074
chlorobenzene		<2	ug/L	2	3/4/99		0074
1,1-dichloroethylene		<1	ug/L	1	3/4/99		0074
Dichloropropenes		<1	ug/L	1	3/4/99		0074
Ethylbenzene		<1	ug/L	1	3/4/99		0074
Bromodichloromethane		<1	ug/L	1	3/4/99		0074
Bromomethane		<5	ug/L	5	3/4/99		0074
Chloromethane		<1	ug/L	1	3/4/99		0074
Dichlorodifluoromethane		<1	ug/L	1	3/4/99		0074
Dichloromethane		<5	ug/L	5	3/4/99		0074
Trichlorofluoromethane		<1	ug/L	1	3/4/99		0074
Tetrachloroethylene		<1	ug/L	1	3/4/99		0074
Toluene		<1	ug/L	1	3/4/99		0074
Trichloroethylene		<1	ug/L	1	3/4/99		0074
Vinyl chloride		<2	ug/L	2	3/4/99		0074
m,p-xylene		<1	ug/L	1	3/4/99		0074
o-xylene		<1	ug/L	1	3/4/99		0074
1,1-dichloroethane		<1	ug/L	1	3/4/99		0074
Ethylene dibromide		<1	ug/L	1	3/4/99		0074
cis-1,2-dichlorethylene		<1	ug/L	1	3/4/99		0074
trans-1,2-dichloroethylene		<1	ug/L	1	3/4/99		0074
Methylene chloride		<5	ug/L	5	3/4/99		0074
Surr. Dibromofluoromethane		104	%	72-130	3/4/99		0074
Surr. Toluene-d8		100	%	77-127	3/4/99		0074
Surr. 4-Bromofluorobenzene		101	%	72-131	3/4/99		0074

Quality Control Report
Blanks

Order ID Number: 9902000455/456 Date: 3/17/99
Project Name: Shell Westgate Page #11
Project Location: Hobbs, NM

Parameter	Flag	Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Acrolein		<125	ug/kg	125	3/9/99		0073
Acrylonitrile		<125	ug/kg	125	3/9/99		0073
Benzene		<25	ug/kg	25	3/9/99		0073
Carbon tetrachloride		<25	ug/kg	25	3/9/99		0073
Chlorobenzene		<25	ug/kg	25	3/9/99		0073
1,2-dichloroethane		<25	ug/kg	25	3/9/99		0073
1,1,2,2-tetrachloroethane		<25	ug/kg	25	3/9/99		0073
1,1,1-trichloroethane		<25	ug/kg	25	3/9/99		0073
1,1,2-trichloroethane		<25	ug/kg	25	3/9/99		0073
1,1,2-trichloroethylene		<25	ug/kg	25	3/9/99		0073
Chloroform		<25	ug/kg	25	3/9/99		0073
Dichlorobenzene		<50	ug/kg	50	3/9/99		0073
1,1-dichloroethylene		<25	ug/kg	25	3/9/99		0073
Dichloropropenes		<25	ug/kg	25	3/9/99		0073
Ethylbenzene		<25	ug/kg	25	3/9/99		0073
Bromodichloromethane		<25	ug/kg	25	3/9/99		0073
Bromomethane		<125	ug/kg	125	3/9/99		0073
oromethane		<25	ug/kg	25	3/9/99		0073
Dichlorodifluoromethane		<25	ug/kg	25	3/9/99		0073
Dichloromethane		<125	ug/kg	125	3/9/99		0073
Trichlorofluoromethane		<25	ug/kg	25	3/9/99		0073
Tetrachloroethylene		<25	ug/kg	25	3/9/99		0073
Toluene		<25	ug/kg	25	3/9/99		0073
Trichloroethylene		<25	ug/kg	25	3/9/99		0073
Vinyl chloride		<50	ug/kg	50	3/9/99		0073
m,p-xylene		<25	ug/kg	25	3/9/99		0073
o-xylene		<25	ug/kg	25	3/9/99		0073
1,1-dichloroethane		<25	ug/kg	25	3/9/99		0073
Ethylene dibromide		<25	ug/kg	25	3/9/99		0073
cis-1,2-dichlorethylene		<25	ug/kg	25	3/9/99		0073
trans-1,2-dichloroethylene		<25	ug/kg	25	3/9/99		0073
Methylene chloride		<125	ug/kg	125	3/9/99		0073
Surr. Dibromofluoromethane		93	%	72-130	3/9/99		0073
Surr. Toluene-d8		108	%	77-127	3/9/99		0073
Surr. 4-Bromofluorobenzene		91	%	72-131	3/9/99		0073

Order ID Number: 9902000455/456 Date: 3/17/99

Project Name: Shell Westgate Page #12

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Benzidine		<2.5	mg/kg	2.5	03/03/99	0080	0075
Hexachlorobenzene		<0.25	mg/kg	0.25	03/03/99	0080	0075
Pentachlorobenzene		<0.25	mg/kg	0.25	03/03/99	0080	0075
1,2,4,5-tetrachlorobenzene		<0.25	mg/kg	0.25	03/03/99	0080	0075
Hexachloroethane		<0.25	mg/kg	0.25	03/03/99	0080	0075
2,4-dichlorphenol		<1.25	mg/kg	1.25	03/03/99	0080	0075
2,4,5-trichlorophenol		<1.25	mg/kg	1.25	03/03/99	0080	0075
2,4,6-trichlorophenol		<1.25	mg/kg	1.25	03/03/99	0080	0075
bis (2-chloroethyl) ether		<1.25	mg/kg	1.25	03/03/99	0080	0075
bis (2-chloroisopropyl) ether		<1.25	mg/kg	1.25	03/03/99	0080	0075
bis (chloromethyl) ether		<1.25	mg/kg	1.25	03/03/99	0080	0075
3,3-dichlorobenzidine		<1.25	mg/kg	1.25	03/03/99	0080	0075
2,4-dinitrotoluene		<0.25	mg/kg	0.25	03/03/99	0080	0075
Diphenylhydrazine		<1.25	mg/kg	1.25	03/03/99	0080	0075
Hexachlorobutadiene		<0.25	mg/kg	0.25	03/03/99	0080	0075
Hexachlorocyclopentadiene		<0.25	mg/kg	0.25	03/03/99	0080	0075
Isophorone		<1.25	mg/kg	1.25	03/03/99	0080	0075
Nitrobenzene		<0.25	mg/kg	0.25	03/03/99	0080	0075
2,4-dinitro-o-cresol		<1.25	mg/kg	1.25	03/03/99	0080	0075
2,4-dinitrophenols		<1.25	mg/kg	1.25	03/03/99	0080	0075
n-nitrosodiethylamine		<0.25	mg/kg	0.25	03/03/99	0080	0075
[redacted]nitrosodimethylamine		<0.25	mg/kg	0.25	03/03/99	0080	0075
[redacted]nitrosodibutylamine		<1.25	mg/kg	1.25	03/03/99	0080	0075
N-nitrosodiphenylamine		<0.25	mg/kg	0.25	03/03/99	0080	0075
N-nitrosopyrrolidine		<0.25	mg/kg	0.25	03/03/99	0080	0075
Pentachlorophenol		<1.25	mg/kg	1.25	03/03/99	0080	0075
Dibutyl phthalate		<0.25	mg/kg	0.25	03/03/99	0080	0075
di-2-ethylhexyl phthalate		<0.25	mg/kg	0.25	03/03/99	0080	0075
Diethyl phthalate		<0.25	mg/kg	0.25	03/03/99	0080	0075
Dimethyl phthalate		<0.25	mg/kg	0.25	03/03/99	0080	0075
Anthracene		<0.25	mg/kg	0.25	03/03/99	0080	0075
3,4-Benzofluoranthene		<0.25	mg/kg	0.25	03/03/99	0080	0075
Benzo(k)fluoranthene		<0.25	mg/kg	0.25	03/03/99	0080	0075
Fluoranthene		<0.25	mg/kg	0.25	03/03/99	0080	0075
Fluorene		<0.25	mg/kg	0.25	03/03/99	0080	0075
Phenanthrene		<0.25	mg/kg	0.25	03/03/99	0080	0075
Pyrene		<0.25	mg/kg	0.25	03/03/99	0080	0075
Naphthalene		<0.25	mg/kg	0.25	03/03/99	0080	0075
1-methylnaphthalene		<0.25	mg/kg	0.25	03/03/99	0080	0075
2-methylnaphthalene		<0.25	mg/kg	0.25	03/03/99	0080	0075
Benzo-a-pyrene		<0.25	mg/kg	0.25	03/03/99	0080	0075
Phenol		<0.25	mg/kg	0.25	03/03/99	0080	0075
Surr. 2-Fluorophenol		68	%	25-121	03/03/99	0080	0075
Surr. Phenol-d6		78	%	24-113	03/03/99	0080	0075
Surr. Nitrobenzene-d5		59	%	23-120	03/03/99	0080	0075
Surr. 2-Fluorobiphenyl		69	%	30-115	03/03/99	0080	0075
[redacted]rr. 2,4,6-Tribromophenol		71	%	19-122	03/03/99	0080	0075
[redacted]rr. Terphenyl-d14		87	%	28-137	03/03/99	0080	0075

Quality Control Report
Blanks

Order ID Number: 9902000455/456 Date: 3/17/99
Project Name: Shell Westgate Page #13
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
PCB		<0.1	mg/kg	0.1	03/05/99	0081	0076
Arsenic		<0.50	mg/kg	0.50	03/02/99	0083	0077
Barium		<0.50	mg/kg	0.50	03/02/99	0083	0077
Cadmium		<0.10	mg/kg	0.10	03/02/99	0083	0077
Chromium		<0.50	mg/kg	0.50	03/02/99	0083	0077
Lead		<0.20	mg/kg	0.20	03/02/99	0083	0077
Total Mercury		<0.10	mg/kg	0.10	03/01/99	0084	0078
Selenium		<0.50	mg/kg	0.50	03/02/99	0083	0077
Silver		<0.50	mg/kg	0.50	03/02/99	0083	0077
Uranium		<5.0	mg/kg	5.0	03/02/99	0083	0077
Copper		<1.0	mg/kg	1.0	03/02/99	0083	0077
Iron		<2.0	mg/kg	2.0	03/02/99	0083	0077
Manganese		<1.0	mg/kg	1.0	03/02/99	0083	0077
Zinc		<2.0	mg/kg	2.0	03/02/99	0083	0077
Aluminum		<10	mg/kg	10	03/02/99	0083	0077
Boron		<10	mg/kg	10	03/02/99	0083	0077
Cobalt		<0.50	mg/kg	0.50	03/02/99	0083	0077
Molybdenum		<1.0	mg/kg	1.0	03/02/99	0083	0077
Nickel		<0.50	mg/kg	0.50	03/02/99	0083	0077
Cyanide		<0.20	mg/kg	0.20	03/03/99	0085	0079
Fluoride		<0.1	mg/kg	0.1	03/02/99	0086	0080
Nitrate		<0.2	mg/kg	0.2	03/02/99	0086	0080
Chloride		<0.5	mg/kg	0.5	03/02/99	0086	0080
Sulfate		<0.5	mg/kg	0.5	03/02/99	0086	0080
Total Dissolved Solids		18	mg/kg	10	03/01/99	0087	0081
TRPHC		<10.0	mg/kg	10	03/03/99	5623	5768
Total Phenols		<0.50	mg/kg	0.50	03/02/99	0089	0083

Quality Control Report
Continuing Calibration Verification Standard

[redacted]f P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/17/99
Page #14

Order ID Number: 9902000455/456
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	86	86	03/04/99	0074
1,1-Dichloroethene		100	ug/L	97	97	03/04/99	0074
Chloroform		100	ug/L	99	99	03/04/99	0074
1,2-Dichloropropane		100	ug/L	98	98	03/04/99	0074
Toluene		100	ug/L	98	98	03/04/99	0074
Chlorobenzene		100	ug/L	92	92	03/04/99	0074
Ethylbenzene		100	ug/L	95	95	03/04/99	0074
Surr. Dibromofluoromethane		100	ug/L	101	101	03/04/99	0074
Surr. Toluene-d8		100	ug/L	100	100	03/04/99	0074
Surr. 4-Bromofluorobenzene		100	ug/L	100	100	03/04/99	0074
Vinyl chloride		100	ug/L	103	103	03/09/99	0073
1,1-Dichloroethene		100	ug/L	87	87	03/09/99	0073
[redacted]hloroform		100	ug/L	99	99	03/09/99	0073
[redacted]-Dichloropropane		100	ug/L	102	102	03/09/99	0073
Toluene		100	ug/L	98	98	03/09/99	0073
Chlorobenzene		100	ug/L	100	100	03/09/99	0073
Ethylbenzene		100	ug/L	101	101	03/09/99	0073
Surr. Dibromofluoromethane		100	ug/L	95	95	03/09/99	0073
Surr. Toluene-d8		100	ug/L	104	104	03/09/99	0073
Surr. 4-Bromofluorobenzene		100	ug/L	95	95	03/09/99	0073
Phenol		80	mg/L	87	109	03/03/99	0075
1,4-Dichlorobenzene		80	mg/L	72	90	03/03/99	0075
2-nitrophenol		80	mg/L	93	116	03/03/99	0075
2,4-Dichlorophenol		80	mg/L	88	110	03/03/99	0075
Hexachlorobutadiene		80	mg/L	71	89	03/03/99	0075
4-Chloro-3-methylphenol		80	mg/L	87	109	03/03/99	0075
2,4,6-Trichlorophenol		80	mg/L	91	114	03/03/99	0075
Acenaphthene		80	mg/L	73	91	03/03/99	0075
n-Nitrosodiphenylamine		80	mg/L	74	93	03/03/99	0075
Pentachlorophenol		80	mg/L	95	119	03/03/99	0075
Fluoranthene		80	mg/L	71	89	03/03/99	0075
Di-n-octylphthalate		80	mg/L	70	88	03/03/99	0075
Benzo(a)pyrene		80	mg/L	76	95	03/03/99	0075
Surr. 2-Fluorophenol		80	mg/L	87	109	03/03/99	0075
Surr. Phenol-d6		80	mg/L	88	110	03/03/99	0075
Surr. Nitroobenzene-d5		80	mg/L	77	96	03/03/99	0075
Surr. 2-Fluorobiphenyl		80	mg/L	75	94	03/03/99	0075
[redacted]rr. 2,4,6-Tribromophenol		80	mg/L	85	106	03/03/99	0075
[redacted]r. Terphenyl-d14		80	mg/L	67	84	03/03/99	0075

Quality Control Report
Continuing Calibration Verification Standard

Order ID Number: 9902000455/456
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 03/17/99
Page #15

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
PCB		0.4	mg/L	0.37	93	03/05/99	0076
Arsenic		1.0	mg/L	1.0	100	03/02/99	0077
Barium		1.0	mg/L	1.0	100	03/02/99	0077
Cadmium		1.0	mg/L	1.0	100	03/02/99	0077
Chromium		1.0	mg/L	1.0	100	03/02/99	0077
Lead		1.0	mg/L	1.0	100	03/02/99	0077
Total Mercury		5.0	mg/L	5.4	108	03/01/99	0078
Selenium		1.0	mg/L	1.0	100	03/02/99	0077
Silver		0.20	mg/L	0.20	100	03/02/99	0077
Uranium		1.0	mg/L	1.0	100	03/02/99	0077
Copper		1.0	mg/L	1.0	100	03/02/99	0077
Iron		1.0	mg/L	1.0	100	03/02/99	0077
Manganese		1.0	mg/L	1.0	100	03/02/99	0077
Zinc		1.0	mg/L	1.0	100	03/02/99	0077
Aluminum		1.0	mg/L	1.0	100	03/02/99	0077
[redacted]		1.0	mg/L	1.0	100	03/02/99	0077
[redacted]t		1.0	mg/L	1.0	100	03/02/99	0077
Molybdenum		1.0	mg/L	1.0	100	03/02/99	0077
Nickel		1.0	mg/L	1.0	100	03/02/99	0077
Cyanide		0.120	mg/L	0.128	107	03/03/99	0079
Fluoride		2.5	mg/L	2.425	97	03/02/99	0080
Nitrate		5.0	mg/L	4.845	97	03/02/99	0080
Chloride		12.5	mg/L	12.17	97	03/02/99	0080
Sulfate		12.5	mg/L	12.28	98	03/02/99	0080
TDS		1000	mg/L	955	96	03/01/99	0081
pH		7.0	s.u.	7.1	101	03/02/99	0082
TRPHC		100	mg/L	100	100	03/03/99	5768
Total Phenol		0.80	mg/L	0.788	99	03/02/99	0083

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/17/99

Order ID Number: 9902000455/456
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene	*	ug/L	<1	100	86	86	100	88	88	2	3/4/99		0074
Benzene	*	ug/L	<1	100	95	95	100	95	95	0	3/4/99		0074
Trichloroethene	*	ug/L	<1	100	92	92	100	92	92	0	3/4/99		0074
Toluene	*	ug/L	<1	100	95	95	100	95	95	0	3/4/99		0074
Chlorobenzene	*	ug/L	<1	100	94	94	100	95	95	1	3/4/99		0074
Surr. Dibromofluoromethane	*	%	104	100	103	103	100	103	103	0	3/4/99		0074
Surr. Toluene-d8	*	%	100	100	99	99	100	100	100	1	3/4/99		0074
Surr. 4-Bromofluorobenzene	*	%	101	100	101	101	100	102	102	1	3/4/99		0074
1,1-Dichloroethene		ug/kg	<25	100	86	86	100	85	85	1	3/9/99		0073
Benzene		ug/kg	<25	100	109	109	100	110	110	1	3/9/99		0073
Trichloroethene		ug/kg	<25	100	108	108	100	108	108	0	3/9/99		0073
Toluene		ug/kg	<25	100	107	107	100	108	108	1	3/9/99		0073
Chlorobenzene		ug/kg	<25	100	112	112	100	113	113	1	3/9/99		0073
Surr. Dibromofluoromethane		%	94	100	96	96	100	96	96	0	3/9/99		0073
Surr. Toluene-d8		%	105	100	102	102	100	106	106	4	3/9/99		0073
Surr. 4-Bromofluorobenzene		%	99	100	98	98	100	96	96	1	3/9/99		0073
Phenol	*	mg/kg	<0.25	100	86	86	100	81	81	6	3/3/99	0080	0075
2-Chlorophenol	*	mg/kg	<1.25	100	76	76	100	73	73	4	3/3/99	0080	0075
1,4-Dichlorobenzene	*	mg/kg	<0.25	100	61	61	100	60	60	2	3/3/99	0080	0075
n-Nitrosodi-n-propylamine	*	mg/kg	<0.25	100	72	72	100	63	63	13	3/3/99	0080	0075
1,2,4-trichlorobenzene	*	mg/kg	<0.25	100	63	63	100	62	62	2	3/3/99	0080	0075
4-Chloro-3-methylphenol	*	mg/kg	<1.25	100	93	93	100	89	89	4	3/3/99	0080	0075
Acenaphthene	*	mg/kg	<0.25	100	72	72	100	71	71	1	3/3/99	0080	0075
4-Nitrophenol	*	mg/kg	<1.25	100	105	105	100	107	107	2	3/3/99	0080	0075
2,4-Dinitrotoluene	*	mg/kg	<0.25	100	81	81	100	84	84	4	3/3/99	0080	0075
Pentachlorophenol	*	mg/kg	<1.25	100	83	83	100	84	84	1	3/3/99	0080	0075
Pyrene	*	mg/kg	<0.25	100	77	77	100	77	77	0	3/3/99	0080	0075
Surr. 2-Fluorophenol	*	%	68	100	76	76	100	64	64	17	3/3/99	0080	0075
Surr. Phenol-d6	*	%	78	100	97	97	100	75	75	26	3/3/99	0080	0075
Surr. Nitrobenzene-d5	*	%	59	100	79	79	100	65	65	19	3/3/99	0080	0075
Surr. 2-Fluorobiphenyl	*	%	69	100	81	81	100	66	66	20	3/3/99	0080	0075
Surr. 2,4,6-Tribromophenol	*	%	71	100	102	102	100	87	87	16	3/3/99	0080	0075
Surr. Terphenyl-d14	*	%	87	100	90	90	100	74	74	20	3/3/99	0080	0075

*LCS's used for spike and spike duplicate.

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Order ID Number: 9902000455/456
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/17/99
Page #17

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
PCB		mg/kg	<0.1	0.25	0.24	96	0.25	0.24	96	0	3/5/99	0081	0076
Arsenic		mg/kg	<0.50	200	211	106	200	206	103	2	3/2/99	0083	0077
Barium		mg/kg	16	200	254	119	200	231	108	10	3/2/99	0083	0077
Cadmium		mg/kg	<0.10	200	207	104	200	204	102	1	3/2/99	0083	0077
Chromium		mg/kg	3.6	200	219	108	200	216	106	2	3/2/99	0083	0077
Lead		mg/kg	0.31	200	219	109	200	212	106	3	3/2/99	0083	0077
Total Mercury		mg/kg	0.14	2.5	2.6	98	2.5	2.7	102	4	3/1/99	0084	0078
Selenium		mg/kg	<0.50	200	204	102	200	200	100	2	3/2/99	0083	0077
Silver		mg/kg	<0.50	25	24	96	25	23	92	4	3/2/99	0083	0077
Uranium		mg/kg	<5.0	200	218	109	200	214	107	2	3/2/99	0083	0077
Copper		mg/kg	1.5	200	215	107	200	225	112	5	3/2/99	0083	0077
Iron	*	mg/kg	<2.0	200	195	98	200	184	92	6	3/2/99	0083	0077
Manganese		mg/kg	19	200	246	114	200	242	112	2	3/2/99	0083	0077
Zinc		mg/kg	4.8	200	210	103	200	206	101	2	3/2/99	0083	0077
Aluminum	*	mg/kg	<10	200	222	111	200	230	115	4	3/2/99	0083	0077
[illegible]ron		mg/kg	21	200	212	96	200	209	94	1	3/2/99	0083	0077
Cobalt		mg/kg	<0.50	200	223	112	200	220	110	1	3/2/99	0083	0077
Molybdenum		mg/kg	<1.0	200	208	104	200	206	103	1	3/2/99	0083	0077
Nickel		mg/kg	2.1	200	220	109	200	217	107	2	3/2/99	0083	0077
Cyanide	*	mg/kg	<0.20	3.0	2.65	88	3.0	2.63	88	1	3/3/99	0085	0079
Fluoride		mg/kg	2.11	5.0	7.13	100	5.0	7.08	99	1	3/2/99	0086	0080
Nitrate		mg/kg	2.13	10	11.06	89	10	11.14	111	1	3/2/99	0086	0080
Chloride		mg/kg	12.25	25	35.19	92	25	34.74	90	1	3/2/99	0086	0080
Sulfate		mg/kg	49.96	25	73.96	96	25	73.83	92	1	3/2/99	0086	0080
TRPHC	*	mg/kg	<10	250	303	121	250	271	108	11	3/3/99	5623	5768
Total Phenol		mg/kg	<0.50	5.0	5.05	99	5.0	5.12	102	1	3/2/99	0089	0083

*LCS's used for spike and spike duplicate.

Quality Control Report
Duplicate

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/17/99
Page #18

Order ID Number: 9902000455/456
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Duplicate Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	8.8	8.8	0	3/2/99	0088	0082
TDS		mg/kg	265	240	10	3/1/99	0087	0081

ARS
AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-99-0170	**P.O. Number:**	N/A
Client I.D.:	119858	**ARS Sample I.D.:**	ARS-99-0541
Date Sampled:	2/26/99	**Date Received:**	3/2/99
Time Sampled:	1120	**Time Received**	1545
Type of Sample:	Solid	**Date of Report**	3/3/99

Analysis Description	Analysis Result	Analysis Error ±2σ	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	3.77	1.78	0.90	pCi/gm	EPA 901.1M	03/03/99 1316	cc
Ra-228	BDL	N/A	0.21	pCi/gm	EPA 901.1M	03/03/99 1316	cc
Pb-210	5.06	2.24	0.96	pCi/gm	EPA 901.1M	03/03/99 1316	cc
Total Activity	21.17	N/A	N/A	pCi/gm	EPA 901.1M	03/03/99 1316	cc

Notes:

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

ARS
AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-99-0170	**P.O. Number:**	N/A
Client I.D.:	119859	**ARS Sample I.D.:**	ARS-99-0542
Date Sampled:	2/25/99	**Date Received:**	3/2/99
Time Sampled:	1230	**Time Received**	1545
Type of Sample:	Solid	**Date of Report**	3/3/99

Analysis Description	Analysis Result	Analysis Error ±2σ	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	1.95	1.93	0.95	pCi/gm	EPA 901.1M	03/03/99 1335	cc
Ra-228	0.28	0.22	0.11	pCi/gm	EPA 901.1M	03/03/99 1335	cc
Pb-210	BDL	N/A	1.25	pCi/gm	EPA 901.1M	03/03/99 1335	cc
Total Activity	12.03	N/A	N/A	pCi/gm	EPA 901.1M	03/03/99 1335	cc

Notes:

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565 **Report Date:** *09-Mar-99*

Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Attn: Nell Green

Our Lab#: MEL99-02789 **Your Sample ID:** 119858
Date Logged In: 3/3/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:** Shell
Project #: **Date Submitted to Lab:** 3/2/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/26/99

EPA Method	Analyst	Prep Date	Analysis Date
60.3	DJF		3/1/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	91.1 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	3/3/99	3/8/99

Diluted 1:10 due to matrix interference

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.20 mg/kg	0.02
57-74-9	Chlordane(Total)	< 1.0 mg/kg	0.1
50-29-3	4,4'-DDT	< 0.30 mg/kg	0.03
60-57-1	Dieldrin	< 0.20 mg/kg	0.02
959-98-8	Endosulfan I	< 0.30 mg/kg	0.03
72-20-8	Endrin	< 0.50 mg/kg	0.05
76-44-8	Heptachlor	< 0.30 mg/kg	0.03

6878 S. STATE ROUTE 100 • P.O. BOX 76 • MELMORE, OH 44845-9999
PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-02789	8081	Decachlorobiphenyl (Surr)	105 %R	41	129
MEL99-02789	8081	Tetrachloro-m-xylene (Surr)	84 %R	27	119

End of Report

Report Approved By: Wade E. Bayer

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Your Sample ID: 119858

Lab Number MEL99-02789

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-
Attn: Nell Green

Report Date: *08-Mar-99*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Our Lab#: MEL99-02790 **Your Sample ID:** 119859
Date Logged In: 3/3/99 **Sample Source:** RCRA
Sample Type: Soil/Sludge **Client Project #:** Shell
Project #: **Date Submitted to Lab:** 3/2/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 2/26/99

EPA Method	Analyst	Prep Date	Analysis Date
160.3	DJF		3/1/99

CAS Number	Parameter	Result	Typical Report Limit
	Solids, Percent	93.2 %	

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	3/3/99	3/5/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 mg/kg	0.02
57-74-9	Chlordane(Total)	< 0.10 mg/kg	0.1
50-29-3	4,4'-DDT	< 0.03 mg/kg	0.03
60-57-1	Dieldrin	< 0.02 mg/kg	0.02
959-98-8	Endosulfan I	< 0.03 mg/kg	0.03
72-20-8	Endrin	< 0.05 mg/kg	0.05
76-44-8	Heptachlor	< 0.03 mg/kg	0.03

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ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-02790	8081	Decachlorobiphenyl (Surr)	108 %R	41	129
MEL99-02790	8081	Tetrachloro-m-xylene (Surr)	77 %R	27	119

End of Report

Report Approved By: Wade E. Bayer

Wade E. Bayer

This report shall not be reproduced, except in its entirety, without the written approval of the laboratory.

Your Sample ID: 119859

Lab Number MEL99-02790

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PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

119858-61

Page 1 of 1

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 455 / 456

Company Name: BBC International
Phone #: 505 397-6388
Address: (Street, City, Zip) 1324 W. Marland Blvd Hobbs
Fax #: 505 397-0397
Contact Person: Cliff Brunson
Invoice to: (If different from above)
Project #:
Project Name: Shell Westgate
Project Location: Hobbs, NM
Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	other	SAMPLING: DATE	TIME
119858	TMW5 48-50	1	Voa		✓					✓		✓	2/26/99	11:20
	TMW5 48-50	5	40z		✓					✓				11:20
119859	TMW5 63-65	1	Voa		✓					✓		✓		12:23
	TMW5 63-65	5	40z		✓					✓				12:30
9860	Field Blank	2	Voa	✓										
9861	Trip Blank	2	Voa	✓										

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TXT005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Full Suite*				Turn Around Time if different from standard	Hold
		✓													✓					
		✓													✓					
		✓													✓					
		✓													✓					
										X										
										X										

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Shawn Hael	2/26/99	4:30			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: Brenda Ward	2/27/99	10:30

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

LAB USE ONLY

Intact Y / N
Headspace Y / N
Temp 4 °
Log-in Review

REMARKS:

See attached

Carrier # TNMO 902 071 980 7

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/19/99
Page: # 1

Project Name: Shell Westgate
Project Location: Hobbs, NM
Order ID Number: 990300069

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
120222	GBN-5 (6")	Soil	03/03/99	1:00 p.m.	03/04/99
120223	GBN-6 (6")	Soil	03/03/99	1:08 p.m.	03/04/99
120224	GBN-7 (6")	Soil	03/03/99	1:15 p.m.	03/04/99
120225	GBS-4 (6")	Soil	03/03/99	1:30 p.m.	03/04/99
120226	GBS-5 (6")	Soil	03/03/99	1:42 p.m.	03/04/99
120227	GBS-6 (6")	Soil	03/03/99	1:50 p.m.	03/04/99

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

This report shall not be reproduced except in its entirety, without written approval of the laboratory.

These results represent only the samples received in the laboratory.

This report consists of a total of 17 pages.

Dr. Blair Leftwich
Director

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Order ID Number: 990300069
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GBN-5 (6") Sample Number: 120222

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
2,6-dichlorphenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2,4,5-Trichlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2,4,6-Trichlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2,4-Dinitro-o-cresol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Pentachlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Phenol		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
2-Chlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2-Methyphenol		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
3-Methyphenol		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
4-Methyphenol		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
2-Nitrophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2,4-Dimethylphenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
4-Chloro-3-methylphenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
4-Nitrophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2,3,4,6-Tetrachlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Surr. 2-Fluorophenol		76	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	25-121
Surr. Phenol-d6		81	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	24-113
Surr. Nitrobenzene-d5		76	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	23-120
Surr. 2-Fluorobiphenyl		80	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	30-115
Surr. 2,4,6-Tribromophenol		60	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	19-122
Surr. Terphenyl-d14		85	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	28-137

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/19/99

Order ID Number: 990300069
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GBN-5 (6") Sample Number: 120222

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Arsenic		2.0	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Barium		173	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Cadmium		<0.10	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.10
Chromium		9.0	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Lead		6.4	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Total Mercury		0.14	mg/kg	7471A	3/6/99	3/9/99	BP	0129	0130	0.10
Selenium		<0.50	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Silver		<0.50	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Uranium		<5.0	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	5.0
Copper		5.1	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	1.0
Iron		9,600	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	2.0
Manganese		180	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	1.0
Zinc		30	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	2.0
Aluminum		11,300	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	10
Boron		53	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	10
Cobalt		2.7	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Molybdenum		<1.0	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	1.0
Nickel		10	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
TRPHC		<10.0	mg/kg	418.1	3/7/99	3/8/99	MF	5639	5787	10
Total Phenol		<0.50	mg/kg	SM 5530 A,D	3/18/99	3/18/99	MD	0131	0132	0.50

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/19/99
Page #4

Order ID Number: 990300069
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GBN-6 (6")

Sample Number: 120223

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
2,6-dichlorphenol		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
2,4,5-Trichlorophenol		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
2,4,6-Trichlorophenol		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
2,4-Dinitro-o-cresol		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
Pentachlorophenol		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
Phenol		<0.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	0.25
2-Chlorophenol		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
2-Methyphenol		<0.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	0.25
3-Methyphenol		<0.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	0.25
4-Methyphenol		<0.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	0.25
2-Nitrophenol		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
2,4-Dimethylphenol		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
4-Chloro-3-methylphenol		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
4-Nitrophenol		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
2,3,4,6-Tetrachlorophenol		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
Surr. 2-Fluorophenol		67	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	25-121
Surr. Phenol-d6		77	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	24-113
Surr. Nitrobenzene-d5		74	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	23-120
Surr. 2-Fluorobiphenyl		84	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	30-115
Surr. 2,4,6-Tribromophenol		80	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	19-122
Surr. Terphenyl-d14		105	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	28-137

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/19/99

Order ID Number: 990300069
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GBN-6 (6") Sample Number: 120223

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Arsenic		2.0	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Barium		127	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Cadmium		<0.10	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.10
Chromium		8.1	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Lead		4.5	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Total Mercury		<0.10	mg/kg	7471A	3/6/99	3/9/99	BP	0129	0130	0.10
Selenium		<0.50	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Silver		<0.50	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Uranium		<5.0	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	5.0
Copper		5.1	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	1.0
Iron		9,300	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	2.0
Manganese		147	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	1.0
Zinc		27	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	2.0
Aluminum		11,200	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	10
Boron		50	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	10
Cobalt		2.8	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Molybdenum		<1.0	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	1.0
Nickel		10	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
TRPHC		87.8	mg/kg	418.1	3/7/99	3/8/99	MF	5639	5787	10
Total Phenol		<0.50	mg/kg	SM 5530 A,D	3/18/99	3/18/99	MD	0131	0132	0.50

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Order ID Number: 990300069
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GBN-7 (6") Sample Number: 120224

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
2,6-dichlorphenol		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
2,4,5-Trichlorophenol		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
2,4,6-Trichlorophenol		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
2,4-Dinitro-o-cresol		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Pentachlorophenol		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Phenol		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
2-Chlorophenol		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
2-Methyphenol		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
3-Methyphenol		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
4-Methyphenol		<0.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	0.25
2-Nitrophenol		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
2,4-Dimethylphenol		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
4-Chloro-3-methylphenol		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
4-Nitrophenol		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
2,3,4,6-Tetrachlorophenol		<1.25	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	1.25
Surr. 2-Fluorophenol		51	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	25-121
Surr. Phenol-d6		53	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	24-113
Surr. Nitrobenzene-d5		54	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	23-120
Surr. 2-Fluorobiphenyl		64	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	30-115
Surr. 2,4,6-Tribromophenol		60	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	19-122
Surr. Terphenyl-d14		77	mg/kg	8270C	3/4/99	3/7/99	MA	0057	0049	28-137

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/19/99

Order ID Number: 990300069
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GBN-7 (6") Sample Number: 120224

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Arsenic		1.3	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Barium		209	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Cadmium		<0.10	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.10
Chromium		10	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Lead		15	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Total Mercury		0.11	mg/kg	7471A	3/6/99	3/9/99	BP	0129	0130	0.10
Selenium		<0.50	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Silver		<0.50	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Uranium		<5.0	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	5.0
Copper		7.9	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	1.0
Iron		11,000	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	2.0
Manganese		257	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	1.0
Zinc		73	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	2.0
Aluminum		12,400	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	10
Boron		60	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	10
Cobalt		3.1	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Molybdenum		<1.0	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	1.0
Nickel		12	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
TRPHC		<10.0	mg/kg	418.1	3/7/99	3/8/99	MF	5639	5787	10
Total Phenol		<0.50	mg/kg	SM 5530 A,D	3/18/99	3/18/99	MD	0131	0132	0.50

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/19/99

Order ID Number: 990300069
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GBS-4 (6") Sample Number: 120225

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Arsenic		1.8	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Barium		154	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Cadmium		<0.10	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.10
Chromium		7.0	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Lead		4.8	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Total Mercury		<0.10	mg/kg	7471A	3/6/99	3/9/99	BP	0129	0130	0.10
Selenium		<0.50	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Silver		<0.50	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Uranium		<5.0	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	5.0
Copper		4.5	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	1.0
Iron		7,960	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	2.0
Manganese		155	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	1.0
Zinc		24	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	2.0
Aluminum		9,240	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	10
Boron		44	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	10
Cobalt		2.7	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Molybdenum		<1.0	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	1.0
Nickel		9.7	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
TRPHC		730	mg/kg	418.1	3/7/99	3/8/99	MF	5639	5787	10

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/19/99

Order ID Number: 990300069
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GBS-5 (6") Sample Number: 120226

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Arsenic		1.6	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Barium		144	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Cadmium		<0.10	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.10
Chromium		7.6	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Lead		4.4	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Total Mercury		<0.10	mg/kg	7471A	3/6/99	3/9/99	BP	0129	0130	0.10
Selenium		<0.50	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Silver		<0.50	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Uranium		<5.0	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	5.0
Copper		4.8	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	1.0
Iron		8,850	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	2.0
Manganese		159	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	1.0
Zinc		25	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	2.0
Aluminum		10,400	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	10
Boron		47	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	10
Cobalt		2.9	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Molybdenum		<1.0	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	1.0
Nickel		10	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
TRPHC		419	mg/kg	418.1	3/7/99	3/8/99	MF	5639	5787	10

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/19/99
Page #10

Order ID Number: 990300069
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GBS-6 (6") Sample Number: 120227

Parameter	Flag	Results	Units	Method	Prepared	Analyzed	Analyst	Batch #	Batch #	Limit
Arsenic		1.6	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Barium		113	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Cadmium		<0.10	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.10
Chromium		9.5	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Lead		8.6	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Total Mercury		<0.10	mg/kg	7471A	3/6/99	3/9/99	BP	0129	0130	0.10
Selenium		<0.50	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Silver		<0.50	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Uranium		<5.0	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	5.0
Copper		6.4	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	1.0
Iron		10,300	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	2.0
Manganese		209	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	1.0
Zinc		30	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	2.0
Aluminum		12,000	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	10
Boron		54	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	10
Cobalt		2.9	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Molybdenum		<1.0	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	1.0
Nickel		11	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
TRPHC		<10.0	mg/kg	418.1	3/7/99	3/8/99	MF	5639	5787	10

Quality Control Report
Blanks

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/19/99

Order ID Number: 990300069
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
2,6-dichlorphenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2,4,5-Trichlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2,4,6-Trichlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2,4-Dinitro-o-cresol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Pentachlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Phenol		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
2-Chlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2-Methyphenol		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
3-Methyphenol		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
[illegible]ethyphenol		<0.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	0.25
2-Nitrophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2,4-Dimethylphenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
4-Chloro-3-methylphenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
4-Nitrophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
2,3,4,6-Tetrachlorophenol		<1.25	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	1.25
Surr. 2-Fluorophenol		74	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	25-121
Surr. Phenol-d6		81	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	24-113
Surr. Nitrobenzene-d5		67	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	23-120
Surr. 2-Fluorobiphenyl		71	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	30-115
Surr. 2,4,6-Tribromophenol		63	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	19-122
Surr. Terphenyl-d14		96	mg/kg	8270C	03/04/99	03/07/99	MA	0057	0049	28-137

Quality Control Report
Blanks

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/19/99

Order ID Number: 990300069
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
2,6-dichlorphenol		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
2,4,5-Trichlorophenol		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
2,4,6-Trichlorophenol		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
2,4-Dinitro-o-cresol		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
2,4-dinitrophenols		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
Pentachlorophenol		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
Phenol		<0.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	0.25
2-Chlorophenol		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
2-Methyphenol		<0.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	0.25
3-Methyphenol		<0.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	0.25
4-Methyphenol		<0.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	0.25
2-Nitrophenol		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
2,4-Dimethylphenol		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
2,4-dichlorphenol		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
4-Chloro-3-methylphenol		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
4-Nitrophenol		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
2,3,4,6-Tetrachlorophenol		<1.25	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	1.25
Surr. 2-Fluorophenol		65	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	25-121
Surr. Phenol-d6		70	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	24-113
Surr. Nitrobenzene-d5		65	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	23-120
Surr. 2-Fluorobiphenyl		72	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	30-115
Surr. 2,4,6-Tribromophenol		63	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	19-122
Surr. Terphenyl-d14		85	mg/kg	8270C	03/04/99	03/09/99	DG	0057	0128	28-137

Quality Control Report
Blanks

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/19/99

Order ID Number: 990300069
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Arsenic		<0.50	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Barium		<0.50	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Cadmium		<0.10	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.10
Chromium		<0.50	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Lead		<0.50	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Total Mercury		<0.10	mg/kg	7471A	3/6/99	3/9/99	BP	0129	0130	0.10
Selenium		<0.50	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Silver		<0.50	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Uranium		<5.0	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	5.0
Copper		<1.0	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	1.0
Iron		<2.0	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	2.0
Manganese		<1.0	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	1.0
Zinc		<2.0	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	2.0
Aluminum		<10	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	10
Boron		<10	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	10
Cobalt		<0.50	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
Molybdenum		<1.0	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	1.0
Nickel		<0.50	mg/kg	6010B	3/5/99	3/5/99	RR	0128	0129	0.50
TRPHC		<10.0	mg/kg	418.1	3/7/99	3/8/99	MF	5639	5787	10
Total Phenol		<0.50	mg/kg	SM 5530 A,D	3/18/99	3/18/99	MD	0131	0132	0.50

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/19/99

Order ID Number: 990300069
Project Name: Shell Westgate

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Phenol		80	mg/kg	79	99	03/07/99	0049
1,4-Dichlorobenzene		80	mg/kg	72	90	03/07/99	0049
2-nitrophenol		80	mg/kg	89	111	03/07/99	0049
2,4-Dichlorophenol		80	mg/kg	88	110	03/07/99	0049
Hexachlorobutadiene		80	mg/kg	70	88	03/07/99	0049
4-Chloro-3-methylphenol		80	mg/kg	87	109	03/07/99	0049
2,4,6-Trichlorophenol		80	mg/kg	87	109	03/07/99	0049
Acenaphthene		80	mg/kg	72	90	03/07/99	0049
n-Nitrosodiphenylamine		80	mg/kg	76	95	03/07/99	0049
Pentachlorophenol		80	mg/kg	80	100	03/07/99	0049
Fluoranthene		80	mg/kg	67	84	03/07/99	0049
Di-n-octylphthalate		80	mg/kg	85	106	03/07/99	0049
[illegible]zo(a)pyrene		80	mg/kg	77	96	03/07/99	0049
[illegible]rr. 2-Fluorophenol		80	%	86	108	03/07/99	0049
Surr. Phenol-d6		80	%	87	109	03/07/99	0049
Surr. Nitroobenzene-d5		80	%	76	95	03/07/99	0049
Surr. 2-Fluorobiphenyl		80	%	75	94	03/07/99	0049
Surr. 2,4,6-Tribromophenol		80	%	79	99	03/07/99	0049
Surr. Terphenyl-d14		80	%	73	91	03/07/99	0049
Phenol		80	mg/kg	75	94	03/09/99	0128
1,4-Dichlorobenzene		80	mg/kg	74	93	03/09/99	0128
2-nitrophenol		80	mg/kg	78	98	03/09/99	0128
2,4-Dichlorophenol		80	mg/kg	77	96	03/09/99	0128
Hexachlorobutadiene		80	mg/kg	73	91	03/09/99	0128
4-Chloro-3-methylphenol		80	mg/kg	77	96	03/09/99	0128
2,4,6-Trichlorophenol		80	mg/kg	77	96	03/09/99	0128
Acenaphthene		80	mg/kg	74	93	03/09/99	0128
n-Nitrosodiphenylamine		80	mg/kg	75	94	03/09/99	0128
Pentachlorophenol		80	mg/kg	81	101	03/09/99	0128
Fluoranthene		80	mg/kg	78	98	03/09/99	0128
Di-n-octylphthalate		80	mg/kg	76	95	03/09/99	0128
Benzo(a)pyrene		80	mg/kg	78	98	03/09/99	0128
Surr. 2-Fluorophenol		80	%	75	94	03/09/99	0128
Surr. Phenol-d6		80	%	75	94	03/09/99	0128
Surr. Nitroobenzene-d5		80	%	76	95	03/09/99	0128
Surr. 2-Fluorobiphenyl		80	%	73	91	03/09/99	0128
[illegible]rr. 2,4,6-Tribromophenol		80	%	78	98	03/09/99	0128
[illegible]. Terphenyl-d14		80	%	74	92	03/09/99	0128

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/19/99
Page #15

Order ID Number: 990300069
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Arsenic		1.0	mg/kg	1.0	100	03/05/99	0129
Barium		1.0	mg/kg	1.0	100	03/05/99	0129
Cadmium		1.0	mg/kg	1.0	100	03/05/99	0129
Chromium		1.0	mg/kg	1.0	100	03/05/99	0129
Lead		1.0	mg/kg	1.0	100	03/05/99	0129
Total Mercury		5.0	mg/kg	5.1	102	03/09/99	0130
Selenium		1.0	mg/kg	1.0	100	03/05/99	0129
Silver		0.20	mg/kg	0.20	100	03/05/99	0129
Uranium		1.0	mg/kg	1.0	100	03/05/99	0129
Copper		1.0	mg/kg	1.0	100	03/05/99	0129
[illegible]n		1.0	mg/kg	1.0	100	03/05/99	0129
[illegible]nganese		1.0	mg/kg	1.0	100	03/05/99	0129
Zinc		1.0	mg/kg	1.0	100	03/05/99	0129
Aluminum		1.0	mg/kg	1.0	100	03/05/99	0129
Boron		1.0	mg/kg	1.0	100	03/05/99	0129
Cobalt		1.0	mg/kg	1.0	100	03/05/99	0129
Molybdenum		1.0	mg/kg	1.0	100	03/05/99	0129
Nickel		1.0	mg/kg	1.0	100	03/05/99	0129
TRPHC		100	mg/kg	100	100	03/08/99	5787
Total Phenol		0.80	mg/kg	0.728	91	3/18/99	0132

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/19/99

Order ID Number: 990300069
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Phenol		mg/kg	<0.25	100	66	66	100	63	63	5	3/7/99	0057	0049
2-Chlorophenol		mg/kg	<1.25	100	67	67	100	62	62	8	3/7/99	0057	0049
1,4-Dichlorobenzene		mg/kg	<0.25	100	59	59	100	53	53	11	3/7/99	0057	0049
n-Nitrosodi-n-propylamine		mg/kg	<0.25	100	60	60	100	57	57	5	3/7/99	0057	0049
1,2,4-trichlorobenzene		mg/kg	<0.25	100	63	63	100	58	58	8	3/7/99	0057	0049
4-Chloro-3-methylphenol		mg/kg	<1.25	100	81	81	100	89	89	9	3/7/99	0057	0049
Acenaphthene		mg/kg	<0.25	100	76	76	100	75	75	1	3/7/99	0057	0049
4-Nitrophenol		mg/kg	<1.25	100	122	122	100	124	124	2	3/7/99	0057	0049
2,4-Dinitrotoluene		mg/kg	<0.25	100	89	89	100	100	100	12	3/7/99	0057	0049
ntachlorophenol		mg/kg	<1.25	100	56	56	100	66	66	16	3/7/99	0057	0049
yrene		mg/kg	<0.25	100	79	79	100	81	81	3	3/7/99	0057	0049
Surr. 2-Fluorophenol		%	36	100	67	67	100	60	60	11	3/7/99	0057	0049
Surr. Phenol-d6		%	41	100	70	70	100	67	67	4	3/7/99	0057	0049
Surr. Nitrobenzene-d5		%	58	100	65	65	100	59	59	10	3/7/99	0057	0049
Surr. 2-Fluorobiphenyl		%	46	100	71	71	100	66	66	7	3/7/99	0057	0049
Surr. 2,4,6-Tribromophenol		%	56	100	81	81	100	91	91	12	3/7/99	0057	0049
Surr. Terphenyl-d14		%	92	100	78	78	100	78	78	0	3/7/99	0057	0049
Phenol	*	mg/kg	<0.25	100	66	66	100	63	63	5	3/9/99	0057	0128
2-Chlorophenol	*	mg/kg	<1.25	100	67	67	100	62	62	8	3/9/99	0057	0128
1,4-Dichlorobenzene	*	mg/kg	<0.25	100	59	59	100	53	53	11	3/9/99	0057	0128
n-Nitrosodi-n-propylamine	*	mg/kg	<0.25	100	60	60	100	57	57	5	3/9/99	0057	0128
1,2,4-trichlorobenzene	*	mg/kg	<0.25	100	63	63	100	58	58	8	3/9/99	0057	0128
4-Chloro-3-methylphenol	*	mg/kg	<1.25	100	81	81	100	89	89	9	3/9/99	0057	0128
Acenaphthene	*	mg/kg	<0.25	100	76	76	100	75	75	1	3/9/99	0057	0128
4-Nitrophenol	*	mg/kg	<1.25	100	122	122	100	124	124	2	3/9/99	0057	0128
2,4-Dinitrotoluene	*	mg/kg	<0.25	100	89	89	100	100	100	12	3/9/99	0057	0128
Pentachlorophenol	*	mg/kg	<1.25	100	56	56	100	66	66	16	3/9/99	0057	0128
Pyrene	*	mg/kg	<0.25	100	79	79	100	81	81	3	3/9/99	0057	0128
Surr. 2-Fluorophenol	*	%	65	100	67	67	100	60	60	11	3/9/99	0057	0128
Surr. Phenol-d6	*	%	70	100	70	70	100	67	67	4	3/9/99	0057	0128
Surr. Nitrobenzene-d5	*	%	65	100	65	65	100	59	59	10	3/9/99	0057	0128
Surr. 2-Fluorobiphenyl	*	%	72	100	71	71	100	66	66	7	3/9/99	0057	0128
Surr. 2,4,6-Tribromophenol	*	%	63	100	81	81	100	91	91	12	3/9/99	0057	0128
Surr. Terphenyl-d14	*	%	85	100	78	78	100	78	78	0	3/9/99	0057	0128

S's used for spike and spike duplicate.

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/19/99

Order ID Number: 990300069
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Arsenic		mg/kg	2.0	200	196	97	200	192	95	2	3/5/99	0128	0129
Barium		mg/kg	173	200	361	94	200	357	92	1	3/5/99	0128	0129
Cadmium		mg/kg	<0.10	200	179	90	200	175	88	2	3/5/99	0128	0129
Chromium		mg/kg	9.0	200	201	96	200	196	94	3	3/5/99	0128	0129
Lead		mg/kg	6.4	200	189	91	200	187	90	1	3/5/99	0128	0129
Total Mercury		mg/kg	<0.10	2.5	2.3	92	2.5	2.4	96	4	3/9/99	0129	0130
Selenium		mg/kg	<0.50	200	185	93	200	182	91	2	3/5/99	0128	0129
Silver		mg/kg	<0.50	20	15	75	20	15	75	0	3/5/99	0128	0129
Uranium		mg/kg	<5.0	200	188	94	200	189	95	1	3/5/99	0128	0129
Copper		mg/kg	5.1	200	203	99	200	198	96	2	3/5/99	0128	0129
Iron		mg/kg	9,600	2,000	11,100	75	2,000	11,000	70	1	3/5/99	0128	0129
Manganese		mg/kg	180	200	369	95	200	370	95	0	3/5/99	0128	0129
Zinc		mg/kg	30	200	220	95	200	215	93	2	3/5/99	0128	0129
Aluminum		mg/kg	11,300	2,500	14,000	108	2,500	14,000	108	0	3/5/99	0128	0129
Boron		mg/kg	53	200	238	93	200	234	91	2	3/5/99	0128	0129
Cobalt		mg/kg	2.7	200	194	96	200	187	92	4	3/5/99	0128	0129
Molybdenum		mg/kg	<1.0	200	184	92	200	178	89	3	3/5/99	0128	0129
Nickel		mg/kg	10	200	204	97	200	198	94	3	3/5/99	0128	0129
TRPHC		mg/kg	<10.0	250	212	85	250	210	84	1	3/8/99	5639	5787
Total Phenol	*	mg/kg	<0.50	5.0	5.51	110	5.0	5.26	105	5	3/18/99	0131	0132

LCS's used for spike and spike duplicate.

120222-27

Page 1 of 1

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

1725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 69

Company Name: BBC International, Inc.
Phone #: (505) 397-6388
Address: (Street, City, Zip) 1324 W. Marland, Hobbs, NM 88240
Fax #: (505) 397-0397
Contact Person: Cliff P. Brunson
Invoice to: (If different from above) Shell E & P Technology Co. ATTN: Wayne Hamilton
Project #:
Project Name: Shell Westgate
Project Location: Hobbs, New Mexico
Sampler Signature: Cliff P. Brunson

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
120222	GBN-5 (6")	1	4oz Jar		✓					✓			3/3/99	1:00pm
23	GBN-6 (6")	1	4oz Jar		✓					✓			"	1:08pm
24	GBN-7 (6")	1	4oz Jar		✓					✓			"	1:15pm
25	GBS-4 (6")	1	4oz Jar		✓					✓			"	1:30pm
26	GBS-5 (6")	1	4oz Jar		✓					✓			"	1:42pm
27	GBS-6 (6")	1	4oz Jar		✓					✓			"	1:50pm
	Field Blank	2	40ml VOA	✓				✓		✓			"	
	Trip Blank	2	40ml VOA	✓						✓			"	

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	See Attached (Full Suite)	Total Chlorides (300-1)	Total Metals (6010)	Total Phenols 8270 (Phenols only)	Turn Around Time if different from standard	Hold
		X														X	X	X		
		X														X	X	X		
		X														X	X	X		
		X														X	X	X		
		X														X	X	X		
		X														X	X	X		

Relinquished by: Cliff P. Brunson Date: 3/3/99 Time: 5:45pm
Received by: Date: Time:

Relinquished by: Date: Time:
Received by: Date: Time:

Relinquished by: David A. Williams Date: 3-4-99 Time: 10:00am
Received at Laboratory by: Vicki Wrotham Date: 3-4-99 Time: 10:00 a

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

LAB USE ONLY

Intact (Y / N)
Headspace (Y / N)
Temp 4 °
Log-in Review VB

REMARKS:

Agreed Upon Turnaround

Attn: Mark

Run 8270 Phenols only
For 120222-24

Carrier # Courier

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

June 3, 1999
Receiving Date: 05/20/99
Sample Type: Soil
Project No:
Project Loc.: Hobbs, NM

Prep Date: 05/22/99
Analysis Date: 05/22/99
Sampling Date: 05/20/99
Sample Condition: I & C
Sample Received by: MS
Project Name: Shell/Westgate

FIELD CODE: TSB 23 (6-8")
TA # T125255

8260 Compounds	Reporting Limit (ug/kg)	Concentration (ug/kg)	QC	RPD	EA	IA
Acrolein	125	ND				
[illegible]ylonitrile	125	ND				
[illegible]zene	25	ND		0	110	
Carbon tetrachloride	25	ND				
Chlorobenzene	25	ND	108	1	106	108
1,2-dichloroethane	25	ND				
1,1,2,2-tetrachloroethane	25	ND				
1,1,1-trichloroethane	25	ND				
1,1,2-trichloroethane	25	ND				
1,1,2-trichloroethylene	25	ND				
Chloroform	25	ND	103			103
Dichlorobenzene	50	ND				
1,1-dichloroethylene	25	ND	113	2	96	113
Dichloropropenes	25	ND				
Ethylbenzene	25	ND	111			111
Bromodichloromethane	25	ND				
Bromomethane	125	ND				
Chloromethane	25	ND				
Dichlorodifluoromethane	25	ND				
Dichloromethane	125	ND				
Trichlorofluoromethane	25	ND				
Tetrachloroethylene	25	ND				
Toluene	25	ND	112	1	114	112
[illegible]loroethylene	25	ND		0	115	
[illegible] chloride	50	ND	101			101
m,p-xylene	25	ND				
o-xylene	25	ND				

BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

FIELD CODE: TSB 23 (6-8")
TA # T125255

8260 Compounds	Reporting Limit (ug/kg)	Concentration (ug/kg)	QC	RPD	EA	IA
1,1-dichloroethane	25	ND				
Ethylene dibromide	25	ND				
cis-1,2-dichlorethylene	25	ND				
trans-1,2-dichloroethylene	25	ND				
Methylene chloride	125	ND				

	% Recovery
Dibromofluoromethane	96
Toluene-d8	100
4-Bromofluorobenzene	99

ND = Not Detected

Methods: EPA SW 846 5035, 8260B
CHEMIST: JG

Director, Dr. Blair Leftwich

6-3-99
Date

TRACE ANALYSIS, INC.

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E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

June 3, 1999
Receiving Date: 05/20/99
Sample Type: Soil
Project No:
Project Loc.: Hobbs, NM

Prep Date: 05/22/99
Analysis Date: 05/22/99
Sampling Date: 05/20/99
Sample Condition: I & C
Sample Received by: MS
Project Name: Shell/Westgate

FIELD CODE: TSB 27 (6-8")
TA # T125256

8260 Compounds	Reporting Limit (ug/kg)	Concentration (ug/kg)	QC	RPD	EA	IA
Acrolein	125	ND				
Acrylonitrile	125	ND				
Benzene	25	ND		0	110	
Carbon tetrachloride	25	ND				
Chlorobenzene	25	ND	108	1	106	108
1,2-dichloroethane	25	ND				
1,1,2,2-tetrachloroethane	25	ND				
1,1,1-trichloroethane	25	ND				
1,1,2-trichloroethane	25	ND				
1,1,2-trichloroethylene	25	ND				
Chloroform	25	ND	103			103
Dichlorobenzene	50	ND				
1,1-dichloroethylene	25	ND	113	2	96	113
Dichloropropenes	25	ND				
Ethylbenzene	25	ND	111			111
Bromodichloromethane	25	ND				
Bromomethane	125	ND				
Chloromethane	25	ND				
Dichlorodifluoromethane	25	ND				
Dichloromethane	125	ND				
Trichlorofluoromethane	25	ND				
Tetrachloroethylene	25	ND				
Toluene	25	ND	112	1	114	112
Trichloroethylene	25	ND		0	115	
Vinyl chloride	50	ND	101			101
m,p-xylene	25	ND				
o-xylene	25	ND				

BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

FIELD CODE: TSB 27 (6-8")
TA # T125256

8260 Compounds	Reporting Limit (ug/kg)	Concentration (ug/kg)	QC	RPD	EA	IA
1,1-dichloroethane	25	ND				
Ethylene dibromide	25	ND				
cis-1,2-dichlorethylene	25	ND				
trans-1,2-dichloroethylene	25	ND				
Methylene chloride	125	ND				

	% Recovery
Dibromofluoromethane	97
Toluene-d8	99
4-Bromofluorobenzene	100

ND = Not Detected

Methods: EPA SW 846 5035, 8260B
CHEMIST: JG

Director, Dr. Blair Leftwich

6-3-99
Date

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E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

June 3, 1999
Receiving Date: 05/20/99
Sample Type: Soil
Project No:
Project Loc.: Hobbs, NM

Prep Date: 05/22/99
Analysis Date: 05/22/99
Sampling Date: 05/20/99
Sample Condition: I & C
Sample Received by: MS
Project Name: Shell/Westgate

FIELD CODE: TSB 32 (6-8")
TA # T125257

8260 Compounds	Reporting Limit (ug/kg)	Concentration (ug/kg)	QC	RPD	EA	IA
Acrolein	125	ND				
[illegible]ylonitrile	125	ND				
[illegible]zene	25	ND		0	110	
Carbon tetrachloride	25	ND				
Chlorobenzene	25	ND	108	1	106	108
1,2-dichloroethane	25	ND				
1,1,2,2-tetrachloroethane	25	ND				
1,1,1-trichloroethane	25	ND				
1,1,2-trichloroethane	25	ND				
1,1,2-trichloroethylene	25	ND				
Chloroform	25	ND	103			103
Dichlorobenzene	50	ND				
1,1-dichloroethylene	25	ND	113	2	96	113
Dichloropropenes	25	ND				
Ethylbenzene	25	ND	111			111
Bromodichloromethane	25	ND				
Bromomethane	125	ND				
Chloromethane	25	ND				
Dichlorodifluoromethane	25	ND				
Dichloromethane	125	ND				
Trichlorofluoromethane	25	ND				
Tetrachloroethylene	25	ND				
Toluene	25	ND	112	1	114	112
[illegible]hloroethylene	25	ND		0	115	
[illegible] chloride	50	ND	101			101
m,p-xylene	25	ND				
o-xylene	25	ND				

BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

FIELD CODE: TSB 32 (6-8")
TA # T125257

8260 Compounds	Reporting Limit (ug/kg)	Concentration (ug/kg)	QC	RPD	EA	IA
1,1-dichloroethane	25	ND				
Ethylene dibromide	25	ND				
cis-1,2-dichlorethylene	25	ND				
trans-1,2-dichloroethylene	25	ND				
Methylene chloride	125	ND				

	% Recovery
Dibromofluoromethane	97
Toluene-d8	99
4-Bromofluorobenzene	99

ND = Not Detected

Methods: EPA SW 846 5035, 8260B
CHEMIST: JG

BZ

Director, Dr. Blair Leftwich

6-8-99

Date

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E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

June 3, 1999
Receiving Date: 05/20/99
Sample Type: Soil
Project No:
Project Loc.: Hobbs, NM

Prep Date: 05/22/99
Analysis Date: 05/22/99
Sampling Date: 05/20/99
Sample Condition: I & C
Sample Received by: MS
Project Name: Shell/Westgate

FIELD CODE: TSB 39 (6-8")
TA # T125258

8260 Compounds	Reporting Limit (ug/kg)	Concentration (ug/kg)	QC	RPD	EA	IA
Acrolein	125	ND				
Acrylonitrile	125	ND				
Benzene	25	ND		0	110	
Carbon tetrachloride	25	ND				
Chlorobenzene	25	ND	108	1	106	108
1,2-dichloroethane	25	ND				
1,1,2,2-tetrachloroethane	25	ND				
1,1,1-trichloroethane	25	ND				
1,1,2-trichloroethane	25	ND				
1,1,2-trichloroethylene	25	ND				
Chloroform	25	ND	103			103
Dichlorobenzene	50	ND				
1,1-dichloroethylene	25	ND	113	2	96	113
Dichloropropenes	25	ND				
Ethylbenzene	25	ND	111			111
Bromodichloromethane	25	ND				
Bromomethane	125	ND				
Chloromethane	25	ND				
Dichlorodifluoromethane	25	ND				
Dichloromethane	125	ND				
Trichlorofluoromethane	25	ND				
Tetrachloroethylene	25	ND				
Toluene	25	ND	112	1	114	112
Trichloroethylene	25	ND		0	115	
Vinyl chloride	50	ND	101			101
m,p-xylene	25	ND				
o-xylene	25	ND				

BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

FIELD CODE: TSB 39 (6-8")
TA # T125258

8260 Compounds	Reporting Limit (ug/kg)	Concentration (ug/kg)	QC	RPD	EA	IA
1,1-dichloroethane	25	ND				
Ethylene dibromide	25	ND				
cis-1,2-dichlorethylene	25	ND				
trans-1,2-dichloroethylene	25	ND				
Methylene chloride	125	ND				

	% Recovery
Dibromofluoromethane	96
Toluene-d8	98
4-Bromofluorobenzene	99

ND = Not Detected

Methods: EPA SW 846 5035, 8260B
CHEMIST: JG

BB

Director, Dr. Blair Leftwich

6-3-99

Date

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E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

June 3, 1999
Receiving Date: 05/20/99
Sample Type: Soil
Project No:
Project Loc.: Hobbs, NM

Prep Date: 05/22/99
Analysis Date: 05/22/99
Sampling Date: 05/20/99
Sample Condition: I & C
Sample Received by: MS
Project Name: Shell/Westgate

FIELD CODE: TSB 42 (6-8")
TA # T125259

8260 Compounds	Reporting Limit (ug/kg)	Concentration (ug/kg)	QC	RPD	EA	IA
Acrolein	130	ND				
Acrylonitrile	130	ND				
Benzene	26	ND		0	110	
Carbon tetrachloride	26	ND				
Chlorobenzene	26	ND	108	1	106	108
1,2-dichloroethane	26	ND				
1,1,2,2-tetrachloroethane	26	ND				
1,1,1-trichloroethane	26	ND				
1,1,2-trichloroethane	26	ND				
1,1,2-trichloroethylene	26	ND				
Chloroform	26	ND	103			103
Dichlorobenzene	52	ND				
1,1-dichloroethylene	26	ND	113	2	96	113
Dichloropropenes	26	ND				
Ethylbenzene	26	ND	111			111
Bromodichloromethane	26	ND				
Bromomethane	130	ND				
Chloromethane	26	ND				
Dichlorodifluoromethane	26	ND				
Dichloromethane	130	ND				
Trichlorofluoromethane	26	ND				
Tetrachloroethylene	26	ND				
Toluene	26	ND	112	1	114	112
Trichloroethylene	26	ND		0	115	
Vinyl chloride	52	ND	101			101
m,p-xylene	26	27				
o-xylene	26	ND				

BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

FIELD CODE: TSB 42 (6-8")
TA # T125259

8260 Compounds	Reporting Limit (ug/kg)	Concentration (ug/kg)	QC	RPD	EA	IA
1,1-dichloroethane	26	ND				
Ethylene dibromide	26	ND				
cis-1,2-dichlorethylene	26	ND				
trans-1,2-dichloroethylene	26	ND				
Methylene chloride	130	ND				

	% Recovery
Dibromofluoromethane	96
Toluene-d8	101
4-Bromofluorobenzene	100

ND = Not Detected

Methods: EPA SW 846 5035, 8260B
CHEMIST: JG

Director, Dr. Blair Leftwich

6-3-99
Date

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ANALYTICAL RESULTS FOR
BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

June 3, 1999
Receiving Date: 05/20/99
Sample Type: Soil
Project No:
Project Loc.: Hobbs, NM

Prep Date: 05/22/99
Analysis Date: 05/22/99
Sampling Date: 05/20/99
Sample Condition: I & C
Sample Received by: MS
Project Name: Shell/Westgate

FIELD CODE: TSB 49 (6-8")
TA # T125260

8260 Compounds	Reporting Limit (ug/kg)	Concentration (ug/kg)	QC	RPD	EA	IA
Acrolein	130	ND				
Acrylonitrile	130	ND				
Benzene	26	ND		0	110	
Carbon tetrachloride	26	ND				
Chlorobenzene	26	ND	108	1	106	108
1,2-dichloroethane	26	ND				
1,1,2,2-tetrachloroethane	26	ND				
1,1,1-trichloroethane	26	ND				
1,1,2-trichloroethane	26	ND				
1,1,2-trichloroethylene	26	ND				
Chloroform	26	ND	103			103
Dichlorobenzene	52	ND				
1,1-dichloroethylene	26	ND	113	2	96	113
Dichloropropenes	26	ND				
Ethylbenzene	26	ND	111			111
Bromodichloromethane	26	ND				
Bromomethane	130	ND				
Chloromethane	26	ND				
Dichlorodifluoromethane	26	ND				
Dichloromethane	130	ND				
Trichlorofluoromethane	26	ND				
Tetrachloroethylene	26	ND				
Toluene	26	ND	112	1	114	112
Trichloroethylene	26	ND		0	115	
Vinyl chloride	52	ND	101			101
m,p-xylene	26	26				
o-xylene	26	ND				

BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

FIELD CODE: TSB 49 (6-8")
TA # T125260

8260 Compounds	Reporting Limit (ug/kg)	Concentration (ug/kg)	QC	RPD	EA	IA
1,1-dichloroethane	26	ND				
Ethylene dibromide	26	ND				
cis-1,2-dichlorethylene	26	ND				
trans-1,2-dichloroethylene	26	ND				
Methylene chloride	130	ND				

	% Recovery
Dibromofluoromethane	96
Toluene-d8	101
4-Bromofluorobenzene	100

ND = Not Detected

Methods: EPA SW 846 5035, 8260B
CHEMIST: JG

BL

Director, Dr. Blair Leftwich

6-3-99

Date

TRACEANALYSIS, INC.

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E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff Brunson
BBC International Inc.
P.O. Box 297
Hobbs, NM 88241

Report Date: 5/28/99

Project Number: N/A
Project Name: Shell Westgate
Project Location: Hobbs,NM

Order ID Number: 99052125

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
125255	TSB 23 (6-8")	Soil	5/20/99	10:14	5/21/99
125256	TSB 27 (6-8")	Soil	5/20/99	10:38	5/21/99
125257	TSB 32 (6-8")	Soil	5/20/99	11:38	5/21/99
125258	TSB 39 (6-8")	Soil	5/20/99	13:30	5/21/99
125259	TSB 42 (6-8")	Soil	5/20/99	14:34	5/21/99
125260	TSB 49 (6-8")	Soil	5/20/99	15:46	5/21/99

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 3 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Analytical Results Report

Sample Number: 125255
Description: TSB 23 (6-8")

Param	Flag	Result	Units	Dilution	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	QC Batch #	RDL
TRPHC		3450	mg/Kg	1	E 418.1	5/24/99	5/24/99	MF	PB00849	QC01074	10

Sample Number: 125256
Description: TSB 27 (6-8")

Param	Flag	Result	Units	Dilution	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	QC Batch #	RDL
TRPHC		1780	mg/Kg	1	E 418.1	5/24/99	5/24/99	MF	PB00849	QC01074	10

Sample Number: 125257
Description: TSB 32 (6-8")

Param	Flag	Result	Units	Dilution	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	QC Batch #	RDL
TRPHC		346	mg/Kg	1	E 418.1	5/24/99	5/24/99	MF	PB00849	QC01074	10

Sample Number: 125258
Description: TSB 39 (6-8")

Param	Flag	Result	Units	Dilution	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	QC Batch #	RDL
TRPHC		867	mg/Kg	1	E 418.1	5/24/99	5/24/99	MF	PB00849	QC01074	10

Sample Number: 125259
Description: TSB 42 (6-8")

Param	Flag	Result	Units	Dilution	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	QC Batch #	RDL
TRPHC		333	mg/Kg	1	E 418.1	5/24/99	5/24/99	MF	PB00849	QC01074	10

Sample Number: 125260
Description: TSB 49 (6-8")

Param	Flag	Result	Units	Dilution	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	QC Batch #	RDL
TRPHC		1810	mg/Kg	1	E 418.1	5/24/99	5/24/99	MF	PB00849	QC01074	10

Quality Control Report
Method Blanks

Param	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
TRPHC		<10.0	mg/Kg	10	5/24/99	PB00849	QC01074

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Standard	Param	Units	Sample Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
MS	TRPHC	mg/Kg	19200	1	250	22200	1200		70 - 130	0 - 20	QC01074
MSD	TRPHC	mg/Kg	19200	1	250	24500	2120	55	70 - 130	0 - 20	QC01074

Quality Control Report
Lab Control Spikes and Duplicate Spike

Standard	Param	Units	Blank Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
LCS	TRPHC	mg/Kg	<10.0	1	250	208	83		70 - 130	0 - 20	QC01074
LCSD	TRPHC	mg/Kg	<10.0	1	250	219	88	5	70 - 130	0 - 20	QC01074

Quality Control Report
Continuing Calibration Verification Standard

Standard	Param	Flag	CCVs TRUE Conc.	Units	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	TRPHC		100	mg/Kg	101	101	70 - 130	5/24/99	QC01074
CCV (1)	TRPHC		100	mg/Kg	100	100	70 - 130	5/24/99	QC01074
CCV (2)	TRPHC		100	mg/Kg	99.7	100	70 - 130	5/24/99	QC01074

TRACE ANALYSIS, INC.

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E-Mail: lab@traceanalysis.com

June 3, 1999
Receiving Date: 05/20/99
Sample Type: Soil
Project No:
Project Loc.: Hobbs, NM

ANALYTICAL RESULTS FOR
BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

Sampling Date: 05/20/99
Sample Condition: I & C
Sample Received by: MS
Project Name: Shell/Westgate

TA#	FIELD CODE	TOTAL As (mg/kg)	TOTAL Ba (mg/kg)	TOTAL Cd (mg/kg)	TOTAL Cr (mg/kg)	TOTAL Pb (mg/kg)	TOTAL Se (mg/kg)	TOTAL Ag (mg/kg)	TOTAL U (mg/kg)	TOTAL Cu (mg/kg)	TOTAL Mn (mg/kg)	TOTAL Zn (mg/kg)	TOTAL B (mg/kg)	TOTAL Co (mg/kg)	TOTAL Mo (mg/kg)
T125258	TSB 39 (6-8")	1.8	102	<0.50	4.0	5.2	<0.50	<0.50	<1.0	5.7	162	16	24	1.8	<0.50
T125259	TSB 42 (6-8")	1.7	99	<0.50	5.1	6.9	<0.50	<0.50	<1.0	5.7	148	24	30	1.7	<0.50
T125260	TSB 49 (6-8")	1.2	109	<0.50	3.8	4.6	<0.50	<0.50	<1.0	5.5	145	19	25	1.4	<0.50
ICV		1.04	1.05	1.05	1.04	1.05	1.03	0.203	1.01	1.03	1.04	1.02	1.09	1.05	1.04
CCV		1.01	1.04	1.04	1.03	1.03	1.01	0.201	0.99	1.01	1.03	1.01	0.99	1.04	1.02
REPORTING LIMIT		0.50	0.50	0.50	0.50	0.50	0.50	0.50	1.0	1.0	1.0	1.0	10	1.0	0.50
RPD		1	3	4	0	1	0	0	1	1	6	3	6	1	1
% Extraction Accuracy		103	97	105	101	98	95	92	99	99	104	95	90	99	90
% Instrument Accuracy		102	104	104	103	104	102	101	100	102	103	101	104	104	103
PREP DATE		05/21/99	05/21/99	05/21/99	05/21/99	05/21/99	05/21/99	05/21/99	05/21/99	05/21/99	05/21/99	05/21/99	05/21/99	05/21/99	05/21/99
ANALYSIS DATE		05/24/99	05/24/99	05/24/99	05/24/99	05/24/99	05/24/99	05/24/99	05/24/99	05/24/99	05/24/99	05/24/99	05/24/99	05/24/99	05/24/99

METHODS: EPA SW 846-6010B, 3050B
CHEMIST: As, Ba, Cd, Cr, Pb, Se, Ag, U, Cu, Mn, Zn, B, Co, Mo: RR
TOTAL METAL SPIKE: 200 mg/kg As, Ba, Cd, Cr, Pb, Se, U, Cu, Mn, Zn, B, Co, Mo 25 mg/kg Ag
TOTAL METAL CV: 1.0 mg/L As, Ba, Cd, Cr, Pb, Se, U, Cu, Mn, Zn, B, Co, Mo 0.20 mg/L Ag

Director, Dr. Blair Leftwich

6-3-99
Date

TRACE ANALYSIS, INC.

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4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

June 3, 1999
Receiving Date: 05/20/99
Sample Type: Soil
Project No:
Project Loc.: Hobbs, NM

ANALYTICAL RESULTS FOR
BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

Sampling Date: 05/20/99
Sample Condition: I & C
Sample Received by: MS
Project Name: Shell/Westgate

TA#	FIELD CODE	TOTAL As (mg/kg)	TOTAL Ba (mg/kg)	TOTAL Cd (mg/kg)	TOTAL Cr (mg/kg)	TOTAL Pb (mg/kg)	TOTAL Se (mg/kg)	TOTAL Ag (mg/kg)	TOTAL U (mg/kg)	TOTAL Cu (mg/kg)	TOTAL Mn (mg/kg)	TOTAL Zn (mg/kg)	TOTAL B (mg/kg)	TOTAL Co (mg/kg)	TOTAL Mo (mg/kg)
T125255	TSB 23 (6-8")	2.2	103	<0.50	5.4	5.8	<0.50	<0.50	<1.0	5.2	145	21	33	1.8	<0.50
T125256	TSB 27 (6-8")	2.3	88	<0.50	4.7	4.8	<0.50	<0.50	<1.0	5.1	155	18	29	1.8	<0.50
T125257	TSB 32 (6-8")	1.9	109	<0.50	5.0	7.8	<0.50	<0.50	<1.0	7.5	147	27	30	1.7	<0.50
ICV		1.04	1.05	1.05	1.04	1.05	1.03	0.203	1.01	1.03	1.04	1.02	1.09	1.05	1.04
CCV		1.01	1.04	1.04	1.03	1.03	1.01	0.201	0.99	1.01	1.03	1.01	0.99	1.04	1.02
REPORTING LIMIT		0.50	0.50	0.50	0.50	0.50	0.50	0.50	1.0	1.0	1.0	1.0	10	1.0	0.50
RPD		1	3	4	0	1	0	0	1	1	6	3	6	1	1
% Extraction Accuracy		103	97	105	101	98	95	92	99	99	104	95	90	99	90
% Instrument Accuracy		102	104	104	103	104	102	101	100	102	103	101	104	104	103
PREP DATE		05/21/99	05/21/99	05/21/99	05/21/99	05/21/99	05/21/99	05/21/99	05/21/99	05/21/99	05/21/99	05/21/99	05/21/99	05/21/99	05/21/99
ANALYSIS DATE		05/24/99	05/24/99	05/24/99	05/24/99	05/24/99	05/24/99	05/24/99	05/24/99	05/24/99	05/24/99	05/24/99	05/24/99	05/24/99	05/24/99

METHODS: EPA SW 846-6010B, 3050B
CHEMIST: As, Ba, Cd, Cr, Pb, Se, Ag, U, Cu, Mn, Zn, B, Co, Mo: RR
TOTAL METAL SPIKE: 200 mg/kg As, Ba, Cd, Cr, Pb, Se, U, Cu, Mn, Zn, B, Co, Mo 25 mg/kg Ag
TOTAL METAL CV: 1.0 mg/L As, Ba, Cd, Cr, Pb, Se, U, Cu, Mn, Zn, B, Co, Mo 0.20 mg/L Ag

Director, Dr. Blair Leftwich

6-3-99
Date

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E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

June 3, 1999
Receiving Date: 05/20/99
Sample Type: Soil
Project No:
Project Loc.: Hobbs, NM

Sampling Date: 05/20/99
Sample Condition: I & C
Sample Received by: MS
Project Name: Shell/Westgate

TA#	FIELD CODE	TOTAL Fe (mg/kg)	TOTAL Al (mg/kg)	TOTAL Ni (mg/kg)	TOTAL Hg (mg/kg)
T125255	TSB 23 (6-8")	5,210	6,460	7.7	<0.25
T125256	TSB 27 (6-8")	3,480	4,340	6.9	<0.25
T125257	TSB 32 (6-8")	5,330	6,580	6.5	<0.25
T125258	TSB 39 (6-8")	3,570	4,490	7.2	<0.25
T125259	TSB 42 (6-8")	4,580	5,520	6.4	<0.25.
T125260	TSB 49 (6-8")	3,820	4,510	6.9	<0.25
ICV		1.02	1.03	1.03	4.9
CCV		0.98	0.99	1.02	4.6
REPORTING LIMIT		10	10	0.50	0.25
RPD		2*	5*	0	1
% Extraction Accuracy		121*	104*	102	95
% Instrument Accuracy		100	101	102	94
PREP DATE		05/21/99	05/21/99	05/21/99	05/22/99
ANALYSIS DATE		05/24/99	05/24/99	05/24/99	05/22/99

***Used LCS/LCSD for EA/RPD due to high concentration in sample.**

METHODS: EPA SW 6010B, 3050B, 7471A
CHEMIST: TOTAL METALS: RR Hg: BP
TOTAL Fe, Al, Ni SPIKE: 200 mg/kg Hg: 2.5 mg/kg TOTAL Fe, Al. Ni CV: 1.0 mg/L Hg: 5.0 mg/L

Director, Dr. Blair Leftwich

6-3-99
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E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

June 2, 1999
Receiving Date: 05/21/99
Sample Type: Soil
Project No:
Project Name: Shell/Westgate
Project Loc.: Hobbs, NM
Sampling Date: 05/20/99
Sample Condition: I & C
Sample Received by: MS
Extraction Date: 05/28/99
Analysis Date: 06/01/99

PAH Reporting T125255

8270 Compounds (mg/kg)	Limit*	TSB 23 (6-8")	CV	RPD	%EA	%IA
Naphthalene	1.25	ND	79			99
Acenaphthylene	1.25	ND	78			98
Acenaphthene	1.25	ND	79	2	94	99
Fluorene	1.25	ND	76			95
Phenanthrene	1.25	ND	74			93
Anthracene	1.25	ND	71			89
Fluoranthene	1.25	ND	65			81
Pyrene	1.25	ND	86	4	100	108
Benzo[a]anthracene	1.25	ND	72			90
Chrysene	1.25	ND	76			95
Benzo[b]fluoranthene	1.25	ND	85			106
Benzo[k]fluoranthene	1.25	ND	90			113
Benzo[a]pyrene	1.25	ND	84			105
Indeno[1,2,3-cd]pyrene	1.25	ND	92			115
Dibenz[a,h]anthracene	1.25	ND	84			105
Benzo[g,h,i]perylene	1.25	ND	89			111

ND = Not Detected

SURROGATES	% RECOVERY
Nitrobenzene-d5 SURR	55
2-Fluorobiphenyl SURR	63
Terphenyl-d14 SURR	89

METHODS: EPA SW 846-8270C, 3510C

CHEMIST: MA

Director, Dr. Blair Leftwich

6-3-99
Date

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ANALYTICAL RESULTS FOR
BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

June 2, 1999
Receiving Date: 05/21/99
Sample Type: Soil
Project No:
Project Name: Shell/Westgate
Project Loc.: Hobbs, NM
Sampling Date: 05/20/99
Sample Condition: I & C
Sample Received by: MS
Extraction Date: 05/28/99
Analysis Date: 06/01/99

PAH Reporting T125256

8270 Compounds (mg/kg)	Limit	TSB 27(6-8")	CV	RPD	%EA	%IA
Naphthalene	1.25	ND	79			99
Acenaphthylene	1.25	ND	78			98
Acenaphthene	1.25	ND	79	2	94	99
Fluorene	1.25	ND	76			95
Phenanthrene	1.25	ND	74			93
Anthracene	1.25	ND	71			89
Fluoranthene	1.25	ND	65			81
Pyrene	1.25	ND	86	4	100	108
Benzo[a]anthracene	1.25	ND	72			90
Chrysene	1.25	ND	76			95
Benzo[b]fluoranthene	1.25	ND	85			106
Benzo[k]fluoranthene	1.25	ND	90			113
Benzo[a]pyrene	1.25	ND	84			105
Indeno[1,2,3-cd]pyrene	1.25	ND	92			115
Dibenz[a,h]anthracene	1.25	ND	84			105
Benzo[g,h,i]perylene	1.25	ND	89			111

ND = Not Detected

SURROGATES	% RECOVERY
Nitrobenzene-d5 SURR	59
2-Fluorobiphenyl SURR	76
Terphenyl-d14 SURR	116

METHODS: EPA SW 846-8270C, 3510C

CHEMIST: MA

Director, Dr. Blair Leftwich

6-3-99
Date

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ANALYTICAL RESULTS FOR
BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

June 2, 1999
Receiving Date: 05/21/99
Sample Type: Soil
Project No:
Project Name: Shell/Westgate
Project Loc.: Hobbs, NM
Sampling Date: 05/20/99
Sample Condition: I & C
Sample Received by: MS
Extraction Date: 05/28/99
Analysis Date: 06/01/99

PAH Reporting T125257

8270 Compounds (mg/kg)	Limit	TSB 32 (6-8")	CV	RPD	%EA	%IA
Naphthalene	1.25	ND	79			99
Acenaphthylene	1.25	ND	78			98
Acenaphthene	1.25	ND	79	2	94	99
Fluorene	1.25	ND	76			95
Phenanthrene	1.25	ND	74			93
Anthracene	1.25	ND	71			89
Fluoranthene	1.25	ND	65			81
Pyrene	1.25	ND	86	4	100	108
Benzo[a]anthracene	1.25	ND	72			90
Chrysene	1.25	ND	76			95
Benzo[b]fluoranthene	1.25	ND	85			106
Benzo[k]fluoranthene	1.25	ND	90			113
Benzo[a]pyrene	1.25	ND	84			105
Indeno[1,2,3-cd]pyrene	1.25	ND	92			115
Dibenz[a,h]anthracene	1.25	ND	84			105
Benzo[g,h,i]perylene	1.25	ND	89			111

ND = Not Detected

SURROGATES	% RECOVERY
Nitrobenzene-d5 SURR	64
2-Fluorobiphenyl SURR	73
Terphenyl-d14 SURR	106

METHODS: EPA SW 846-8270C, 3510C

CHEMIST: MA

Director, Dr. Blair Leftwich

6-3-99
Date

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E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

June 2, 1999
Receiving Date: 05/21/99
Sample Type: Soil
Project No:
Project Name: Shell/Westgate
Project Loc.: Hobbs, NM
Sampling Date: 05/20/99
Sample Condition: I & C
Sample Received by: MS
Extraction Date: 05/28/99
Analysis Date: 06/01/99

PAH Reporting T125258

8270 Compounds (mg/kg)	Limit	TSB 39 (6-8")	CV	RPD	%EA	%IA
Naphthalene	1.25	ND	79			99
Acenaphthylene	1.25	ND	78			98
Acenaphthene	1.25	ND	79	2	94	99
Fluorene	1.25	ND	76			95
Phenanthrene	1.25	ND	74			93
Anthracene	1.25	ND	71			89
Fluoranthene	1.25	ND	65			81
Pyrene	1.25	ND	86	4	100	108
Benzo[a]anthracene	1.25	ND	72			90
Chrysene	1.25	ND	76			95
Benzo[b]fluoranthene	1.25	ND	85			106
Benzo[k]fluoranthene	1.25	ND	90			113
Benzo[a]pyrene	1.25	ND	84			105
Indeno[1,2,3-cd]pyrene	1.25	ND	92			115
Dibenz[a,h]anthracene	1.25	ND	84			105
Benzo[g,h,i]perylene	1.25	ND	89			111

ND = Not Detected

SURROGATES	% RECOVERY
Nitrobenzene-d5 SURR	68
2-Fluorobiphenyl SURR	79
Terphenyl-d14 SURR	128

METHODS: EPA SW 846-8270C, 3510C

CHEMIST: MA

Director, Dr. Blair Leftwich

6-3-99
Date

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E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

June 2, 1999
Receiving Date: 05/21/99
Sample Type: Soil
Project No:
Project Name: Shell/Westgate
Project Loc.: Hobbs, NM
Sampling Date: 05/20/99
Sample Condition: I & C
Sample Received by: MS
Extraction Date: 05/28/99
Analysis Date: 06/01/99

PAH Reporting T125259

8270 Compounds (mg/kg)	Limit	TSB 42 (6-8")	CV	RPD	%EA	%IA
Naphthalene	1.25	ND	79			99
Acenaphthylene	1.25	ND	78			98
Acenaphthene	1.25	ND	79	2	94	99
Fluorene	1.25	ND	76			95
Phenanthrene	1.25	ND	74			93
Anthracene	1.25	ND	71			89
Fluoranthene	1.25	ND	65			81
Pyrene	1.25	1.9	86	4	100	108
Benzo[a]anthracene	1.25	ND	72			90
Chrysene	1.25	ND	76			95
Benzo[b]fluoranthene	1.25	ND	85			106
Benzo[k]fluoranthene	1.25	ND	90			113
Benzo[a]pyrene	1.25	ND	84			105
Indeno[1,2,3-cd]pyrene	1.25	ND	92			115
Dibenz[a,h]anthracene	1.25	ND	84			105
Benzo[g,h,i]perylene	1.25	ND	89			111

ND = Not Detected

SURROGATES	% RECOVERY
Nitrobenzene-d5 SURR	51
2-Fluorobiphenyl SURR	60
Terphenyl-d14 SURR	96

METHODS: EPA SW 846-8270C, 3510C

CHEMIST: MA

Director, Dr. Blair Leftwich

6-3-99
Date

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E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

June 2, 1999
Receiving Date: 05/21/99
Sample Type: Soil
Project No:
Project Name: Shell/Westgate
Project Loc.: Hobbs, NM
Sampling Date: 05/20/99
Sample Condition: I & C
Sample Received by: MS
Extraction Date: 05/28/99
Analysis Date: 06/01/99

PAH Reporting T125260

8270 Compounds (mg/kg)	Limit	TSB 49 (6-8")	CV	RPD	%EA	%IA
Naphthalene	1.25	ND	79			99
Acenaphthylene	1.25	ND	78			98
Acenaphthene	1.25	ND	79	2	94	99
Fluorene	1.25	ND	76			95
Phenanthrene	1.25	ND	74			93
Anthracene	1.25	ND	71			89
Fluoranthene	1.25	ND	65			81
Pyrene	1.25	ND	86	4	100	108
Benzo[a]anthracene	1.25	ND	72			90
Chrysene	1.25	ND	76			95
Benzo[b]fluoranthene	1.25	ND	85			106
Benzo[k]fluoranthene	1.25	ND	90			113
Benzo[a]pyrene	1.25	ND	84			105
Indeno[1,2,3-cd]pyrene	1.25	ND	92			115
Dibenz[a,h]anthracene	1.25	ND	84			105
Benzo[g,h,i]perylene	1.25	ND	89			111

ND = Not Detected

SURROGATES	% RECOVERY
Nitrobenzene-d5 SURR	68
2-Fluorobiphenyl SURR	76
Terphenyl-d14 SURR	96

METHODS: EPA SW 846-8270C, 3510C

CHEMIST: MA

BB

Director, Dr. Blair Leftwich

6-3-99

Date

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E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

June 3, 1999
Receiving Date: 05/20/99
Sample Type: Water
Project No:
Project Loc.: Hobbs, NM

Prep Date: 05/23/99
Analysis Date: 05/23/99
Sampling Date: 05/20/99
Sample Condition: I & C
Sample Received by: MS
Project Name: Shell/Westgate

FIELD CODE: Field Blank
TA # T125261

8260 Compounds	Reporting Limit (ug/L)	Concentration (ug/L)	QC	RPD	EA	IA
Acrolein	5	ND				
[illegible]ylonitrile	5	ND				
[illegible]zene	1	ND		0	100	
Carbon tetrachloride	1	ND				
Chlorobenzene	1	ND	104	0	105	104
1,2-dichloroethane	1	ND				
1,1,2,2-tetrachloroethane	1	ND				
1,1,1-trichloroethane	1	ND				
1,1,2-trichloroethane	1	ND				
1,1,2-trichloroethylene	1	ND				
Chloroform	1	ND	103			103
Dichlorobenzene	2	ND				
1,1-dichloroethylene	1	ND	93	0	96	93
Dichloropropenes	1	ND				
Ethylbenzene	1	ND	109			109
Bromodichloromethane	1	ND				
Bromomethane	5	ND				
Chloromethane	1	ND				
Dichlorodifluoromethane	1	ND				
Dichloromethane	5	ND				
Trichlorofluoromethane	1	ND				
Tetrachloroethylene	1	ND				
Toluene	1	ND	105	1	104	105
[illegible]loroethylene	1	ND		0	100	
[illegible] chloride	2	ND	94			94
m,p-xylene	1	ND				
o-xylene	1	ND				

BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

FIELD CODE: Field Blank
TA # T125261

8260 Compounds	Reporting Limit (ug/L)	Concentration (ug/L)	QC	RPD	EA	IA
1,1-dichloroethane	1	ND				
Ethylene dibromide	1	ND				
cis-1,2-dichlorethylene	1	ND				
trans-1,2-dichloroethylene	1	ND				
Methylene chloride	5	ND				

	% Recovery
Dibromofluoromethane	110
Toluene-d8	96
4-Bromofluorobenzene	96

ND = Not Detected

Methods: EPA SW 846 5035, 8260B
CHEMIST: JG

Director, Dr. Blair Leftwich

6-3-99
Date

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E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

June 2, 1999
Receiving Date: 05/20/99
Sample Type: Water
Project No:
Project Loc.: Hobbs, NM

Prep Date: 06/02/99
Analysis Date: 06/02/99
Sampling Date: 05/20/99
Sample Condition: I & C
Sample Received by: MS
Project Name: Shell/Westgate

FIELD CODE: Trip Blank
TA # T125262

8260 Compounds	Reporting Limit (ug/L)	Concentration (ug/L)	QC	RPD	EA	IA
Acrolein	5	ND				
Acrylonitrile	5	ND				
Benzene	1	ND		0	99	
Carbon tetrachloride	1	ND				
Chlorobenzene	1	ND	101	2	97	101
1,2-dichloroethane	1	ND				
1,1,2,2-tetrachloroethane	1	ND				
1,1,1-trichloroethane	1	ND				
1,1,2-trichloroethane	1	ND				
1,1,2-trichloroethylene	1	ND				
Chloroform	1	ND	97			97
Dichlorobenzene	2	ND				
1,1-dichloroethylene	1	ND	102	12	76	102
Dichloropropenes	1	ND				
Ethylbenzene	1	ND	102			102
Bromodichloromethane	1	ND				
Bromomethane	5	ND				
Chloromethane	1	ND				
Dichlorodifluoromethane	1	ND				
Dichloromethane	5	ND				
Trichlorofluoromethane	1	ND				
Tetrachloroethylene	1	ND				
Toluene	1	ND	102	1	102	102
Trichloroethylene	1	ND		1	104	
Vinyl chloride	2	ND	86			86
m,p-xylene	1	ND				
o-xylene	1	ND				

BBC INTERNATIONAL, INC.
Attention: Cliff P. Brunson
P. O. Box 805
Hobbs, New Mexico 88241

FIELD CODE: Trip Blank
TA # T125262

8260 Compounds	Reporting Limit (ug/L)	Concentration (ug/L)	QC	RPD	EA	IA
1,1-dichloroethane	1	ND				
Ethylene dibromide	1	ND				
cis-1,2-dichlorethylene	1	ND				
trans-1,2-dichloroethylene	1	ND				
Methylene chloride	5	ND				

	% Recovery
Dibromofluoromethane	92
Toluene-d8	95
4-Bromofluorobenzene	95

ND = Not Detected

Methods: EPA SW 846 5035, 8260B
CHEMIST: JG

Director, Dr. Blair Leftwich

6-3-99
Date

6701 Aberdeen Avenue, Ste. 9
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Tel (806) 794-1296
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TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
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1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 990521 25

Company Name: BBC International Inc. Phone #: 505-397-6388

Address: (Street, City, Zip) 1324 W. Marland Fax #: 505-397-0397

Contact Person: Cliff Brunson

Invoice to: (If different from above)

Project #: Project Name: Shell / Westgate

Project Location: Hobbs, N.M. Sampler Signature: Daniel A. Williams

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	meth.	SAMPLING: DATE	TIME
125255	TSB 23 (6-8")	1	VOA		X					X		X	5/20	1014
	TSB 23 (6-8")	2	4oz		X					X			5/20	1014
56	TSB 27 (6-8")	1	VOA		X							X	5/20	1033
	TSB 27 (6-8")	2	4oz		X					X			5/20	1033
57	TSB 32 (6-8")	1	VOA		X							X	5/20	1138
	TSB 32 (6-8")	2	4oz		X					X			5/20	1138
58	TSB 39 (6-8")	1	VOA		X							X	5/20	1330
	TSB 39 (6-8")	2	4oz		X					X			5/20	1330
59	TSB 42 (6-8")	1	VOA		X							X	5/20	1434
	TSB 42 (6-8")	2	4oz		X					X			5/20	1434

ANALYSIS REQUEST

(Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Total Metals (6010)	TX1006	Turn Around Time if different from standard	Hold
		X	X							X					X	X		
		X	X												X	X		
		X	X							X					X	X		
		X	X												X	X		
		X	X							X					X	X		
		X	X												X	X		
		X	X							X					X	X		
		X	X												X	X		
		X	X							X					X	X		
		X	X												X	X		

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Daniel A. Williams	5/21/99	1320			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
				05/20/99	1320

LAB USE ONLY

Intact Y / N

Headspace Y / N

Temp 2°

Log-in Review TMB

REMARKS: Run TX1006 for Cliff 5:24:99 VW

Carrier # carry in

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 99052125

Company Name: BBC International Inc. Phone #: 505-397-6388
Address: (Street, City, Zip) 1324 W. Marland Fax #: 505-397-0397
Contact Person: Cliff Branson
Invoice to: (If different from above)
Project #: Project Name: Shell / Westgate
Project Location: Hobbs, N.M. Sampler Signature: Daniel A. Williams

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Meth.	SAMPLING: DATE	TIME
125260	TSB49 (6-8")	1	VOA		X							X	5/20	1546
	TSB49 (6-8")	2	4oz		X					X			5/20	1546
61	Field Blank (DOR Broke)	1/2	VOA	X				X					5/20	
62	Trip Blank	2	VOA	X									5/20	

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Total Metals (6010 TX1006	Turn Around Time if different from standard	Hold
										X					X		
		X	X												X		
										X							
										X							

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Daniel A. Williams	5/24/99	1320			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date	Time:
				5/20/99	1320

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 2°
Log-in Review

REMARKS:

Carrier #

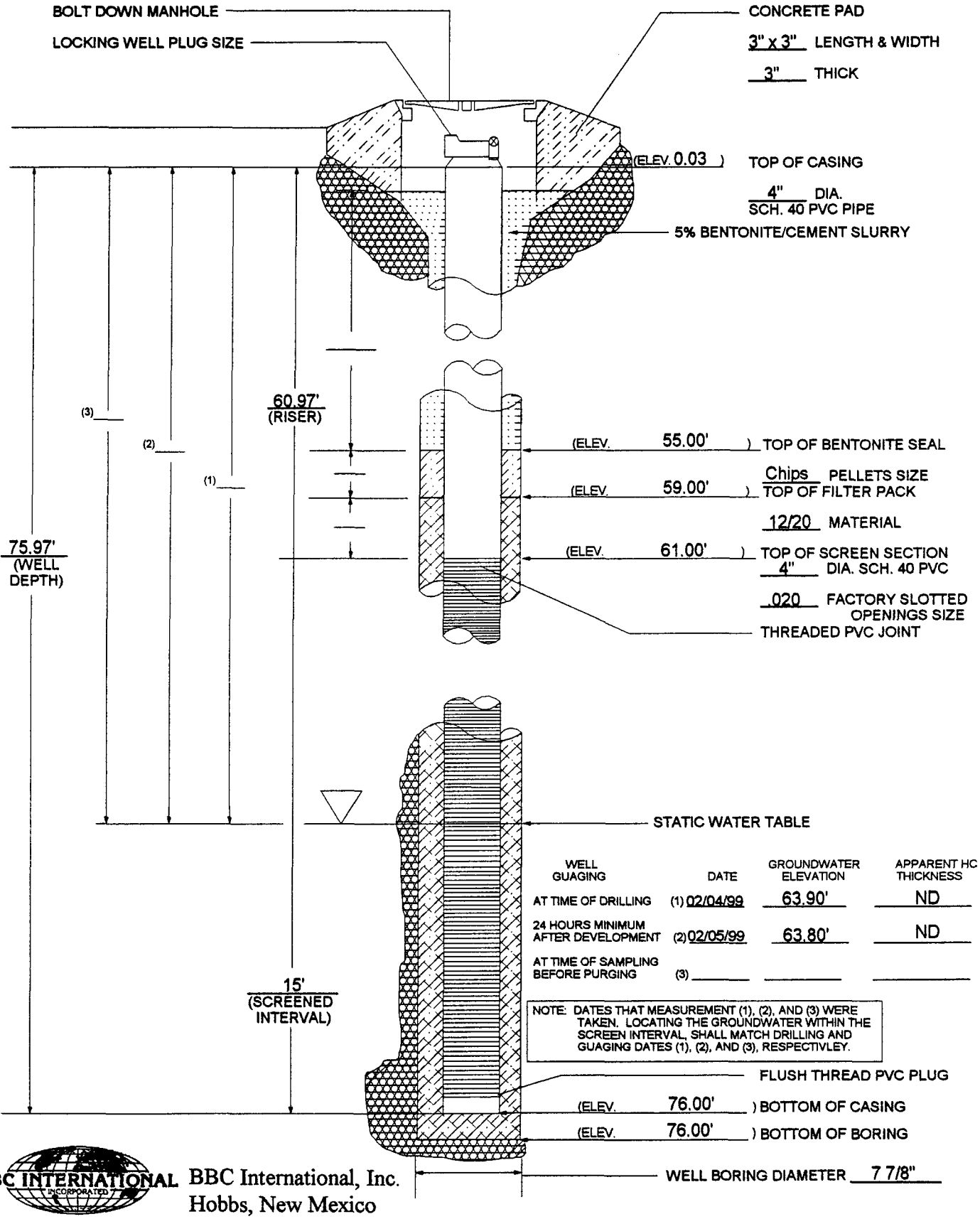
Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

Appendix V

Monitor Well Construction Diagrams

Monitor Well Installation Detail

LOCATION:	PROJECT NUMBER:	INSTALLATION DATE:	MONITOR WELL NUMBER:
Grimes Tank Battery		02/04/99	GMW - 11



WELL GUAGING	DATE	GROUNDWATER ELEVATION	APPARENT HC THICKNESS
AT TIME OF DRILLING	(1) 02/04/99	63.90'	ND
24 HOURS MINIMUM AFTER DEVELOPMENT	(2) 02/05/99	63.80'	ND
AT TIME OF SAMPLING BEFORE PURGING	(3)		

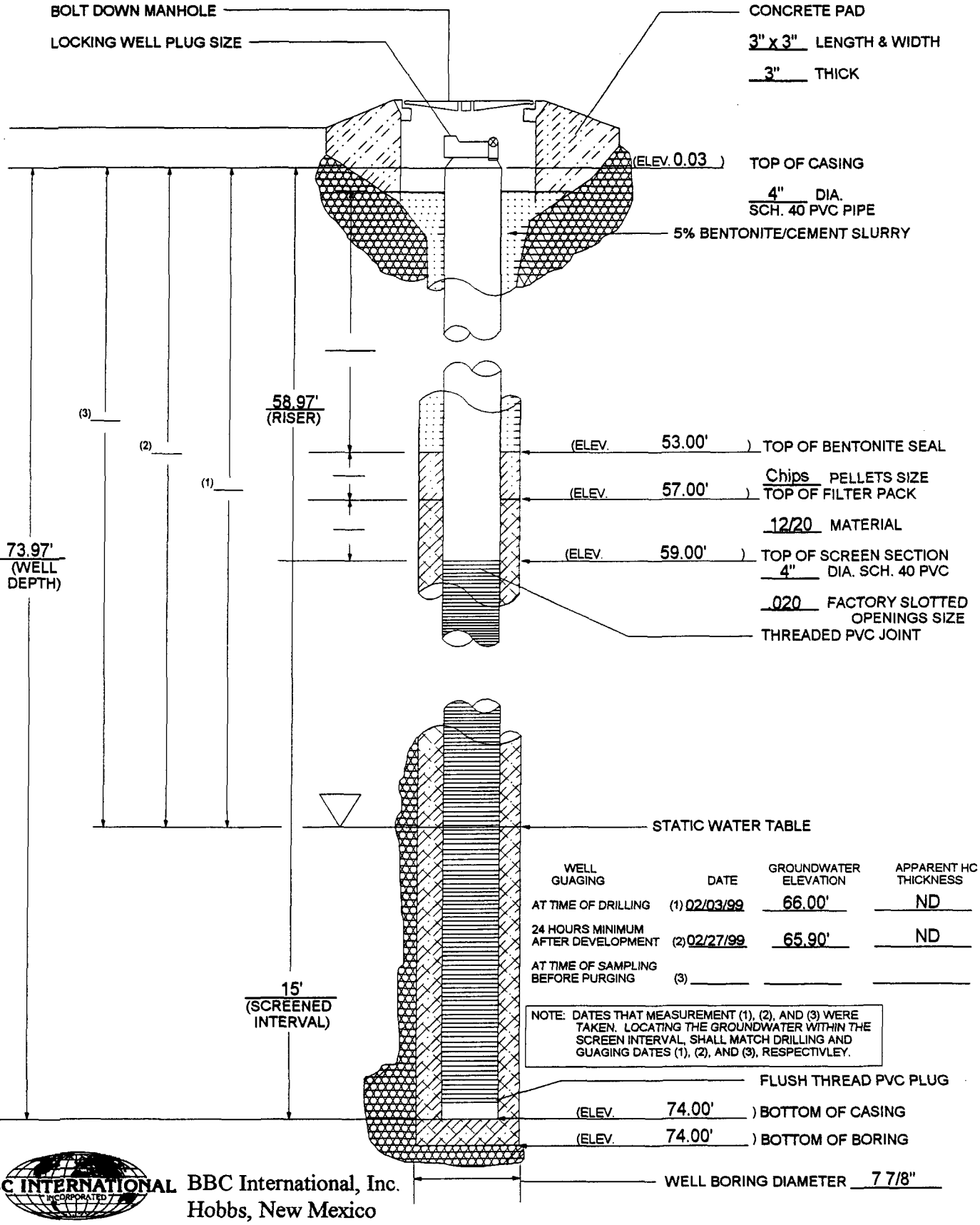
NOTE: DATES THAT MEASUREMENT (1), (2), AND (3) WERE TAKEN. LOCATING THE GROUNDWATER WITHIN THE SCREEN INTERVAL, SHALL MATCH DRILLING AND GUAGING DATES (1), (2), AND (3), RESPECTIVLEY.

BBC INTERNATIONAL INCORPORATED

BBC International, Inc.
Hobbs, New Mexico

Monitor Well Installation Detail

LOCATION:	PROJECT NUMBER:	INSTALLATION DATE:	MONITOR WELL NUMBER:
Tasker Road		02/03/99	TMW - 4



WELL GUAGING	DATE	GROUNDWATER ELEVATION	APPARENT HC THICKNESS
AT TIME OF DRILLING	(1) 02/03/99	66.00'	ND
24 HOURS MINIMUM AFTER DEVELOPMENT	(2) 02/27/99	65.90'	ND
AT TIME OF SAMPLING BEFORE PURGING	(3)		

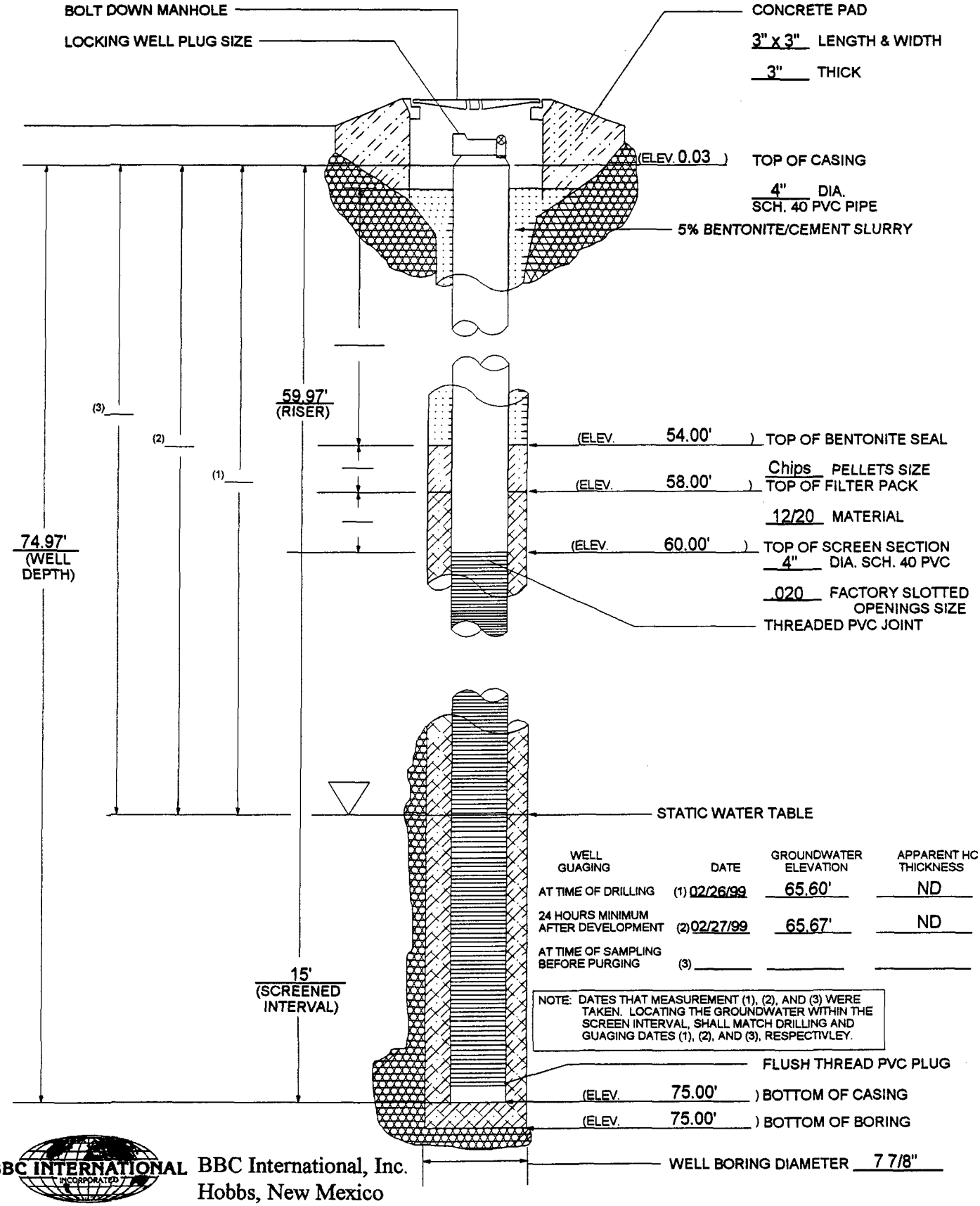
NOTE: DATES THAT MEASUREMENT (1), (2), AND (3) WERE TAKEN. LOCATING THE GROUNDWATER WITHIN THE SCREEN INTERVAL, SHALL MATCH DRILLING AND GUAGING DATES (1), (2), AND (3), RESPECTIVLEY.

BBC INTERNATIONAL INCORPORATED

BBC International, Inc.
Hobbs, New Mexico

Monitor Well Installation Detail

LOCATION:	PROJECT NUMBER:	INSTALLATION DATE:	MONITOR WELL NUMBER:
Tasker Road		02/26/99	TMW - 5



WELL GUAGING	DATE	GROUNDWATER ELEVATION	APPARENT HC THICKNESS
AT TIME OF DRILLING	(1) 02/26/99	65.60'	ND
24 HOURS MINIMUM AFTER DEVELOPMENT	(2) 02/27/99	65.67'	ND
AT TIME OF SAMPLING BEFORE PURGING	(3)		

NOTE: DATES THAT MEASUREMENT (1), (2), AND (3) WERE TAKEN. LOCATING THE GROUNDWATER WITHIN THE SCREEN INTERVAL, SHALL MATCH DRILLING AND GUAGING DATES (1), (2), AND (3), RESPECTIVLEY.

BBC INTERNATIONAL INCORPORATED

BBC International, Inc.
Hobbs, New Mexico

Appendix VI

Groundwater Laboratory Analytical Results and 1998 Summary Table

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/03/99
Page: # 1

Project Name: Shell Westgate
Project Location: Hobbs, NM
Order ID Number: 9902000233

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
118890	GMW 11	Water	02/11/99	2:50 p.m.	02/12/99
118891	Trip Blank	Water	02/11/99		02/12/99

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

This report shall not be reproduced except in its entirety, without written approval of the laboratory.

These results represent only the samples received in the laboratory.

This report consists of a total of 14 pages.

*Semi-volatile method blank surrogate out of control limits.

Dr. Blair Leftwich
Director

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/3/99
Page # 2

Order ID Number: 9902000233
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 11 Sample Number: 118890

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	5
Acrylonitrile		<5	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	5
Benzene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
Carbon tetrachloride		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
Chlorobenzene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
1,2-dichloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
1,1,1-trichloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
1,1,2-trichloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
Chloroform		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
Dichlorobenzene		<2	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	2
1,1-dichloroethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
Dichloropropenes		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
Ethylbenzene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
Bromodichloromethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
Bromomethane		<5	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	5
Chloromethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
Dichlorodifluoromethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
Dichloromethane		<5	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	5
Trichlorofluoromethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
Tetrachloroethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
Toluene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
Trichloroethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
Vinyl chloride		<2	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	2
m,p-xylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
o-xylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
1,1-dichloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
Ethylene dibromide		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	1
Methylene chloride		<5	ug/L	S-8260B	02/13/99	02/13/99	JG		5690	5
Surr. Dibromofluoromethane		106	%	S-8260B	02/13/99	02/13/99	JG		5690	72-130
Surr. Toluene-d8		104	%	S-8260B	02/13/99	02/13/99	JG		5690	77-127
Surr. 4-Bromofluorobenzene		104	%	S-8260B	02/13/99	02/13/99	JG		5690	72-131

Order ID Number: 9902000233 Page # 3
Field Code: GMW 11 Sample Number 118890

Parameter		Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	<0.01	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.01
Hexachlorobenzene	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
Pentachlorobenzene	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
1,2,4,5-tetrachlorobenzene	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
Hexachloroethane	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
2,4-dichlorphenol	<0.025	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.025
2,4,5-trichlorophenol	<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.005
2,4,6-trichlorophenol	<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.005
bis (2-chloroethly) ether	<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.005
bis (2-chloroisopropyl) ether	<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.005
bis (chloromethyl) ether	<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.005
3,3-dichlorobenzidine	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
2,4-dinitrotoluene	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
Diphenylhydrazine	<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.005
Hexachlorobutadiene	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
Hexachlorocyclopentadiene	<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.005
Isophorone	<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.005
Nitrobenzene	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
2,4-dinitro-o-cresol	<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.005
2,4-dinitrophenols	<0.025	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.025
n-nitrosodiethylamine	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
N-nitrosodimethylamine	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
N-nitrosodibutylamine	<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.005
N-nitrosodiphenylamine	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
N-nitrosopyrrolidine	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
Pentachlorophenol	<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.005
Dibutyl phthalate	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
di-2-ethylhexyl phthalate	<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.005
Diethyl phthalate	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
Dimethyl phthalate	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
Anthracene	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
3,4-benzofluoranthene	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
Benzo(k)fluoranthene	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
Fluoranthene	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
Fluorene	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
Phenanthrene	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
Pyrene	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
Naphthalene	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
1-methylnaphthalene	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
2-methylnaphthalene	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
Benzo-a-pyrene	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
Phenol	<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5555	5689	0.001
Surr. 2-Fluorophenol	43	%	8270C	02/13/99	02/13/99	DG	5555	5689	21-100
Surr. Phenol-d6	17	%	8270C	02/13/99	02/13/99	DG	5555	5689	10-94
Surr. Nitrobenzene-d5	75	%	8270C	02/13/99	02/13/99	DG	5555	5689	35-114
Surr. 2-Fluorobiphenyl	86	%	8270C	02/13/99	02/13/99	DG	5555	5689	43-116
Surr. 2,4,6-Tribromophenol	75	%	8270C	02/13/99	02/13/99	DG	5555	5689	10-123
Surr. Terphenyl-d14	133	%	8270C	02/13/99	02/13/99	DG	5555	5689	33-141

Order ID Number: 9902000233
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/3/99
Page # 4

Field Code: GMW 11

Sample Number: 118890

Parameter	Flag	Units	Analytical Method	Date	Date	Analyst	Prep	Run	Reporting Limit
PCB's	<0.001	mg/L	8082	2/17/99	2/17/99	RC	5558	5693	0.001
Arsenic	<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5557	5692	0.10
Barium	<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5557	5692	0.10
Cadmium	<0.01	mg/L	6010B	2/15/99	2/16/99	RR	5557	5692	0.01
Chromium	<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5557	5692	0.05
Lead	<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5557	5692	0.05
Total Mercury	<0.0002	mg/L	7470A	2/16/99	2/18/99	BP	5560	5694	0.0002
Selenium	<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5557	5692	0.05
Silver	<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5557	5692	0.05
Uranium	<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5557	5692	0.10
Copper	<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5557	5692	0.10
Iron	<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5557	5692	0.10
Manganese	<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5557	5692	0.10
Zinc	<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5557	5692	0.10
Aluminum	<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5557	5692	0.10
Boron	0.18	mg/L	6010B	2/15/99	2/16/99	RR	5557	5692	0.10
Cobalt	<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5557	5692	0.05
Molybdenum	<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5557	5692	0.10
Nickel	<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5557	5692	0.10
Cyanide	<0.01	mg/L	SM 4500CN C,E	2/18/99	2/18/99	MD	5561	5695	0.01
Fluoride	2.4	mg/L	300.0	2/12/99	2/12/99	JS	5562	5696	0.1
Nitrate	5.1	mg/L	300.0	2/12/99	2/12/99	JS	5562	5696	0.2
Chloride	120	mg/L	300.0	2/12/99	2/12/99	JS	5562	5696	0.5
Sulfate	92	mg/L	300.0	2/12/99	2/12/99	JS	5562	5696	0.5
TDS	530	mg/L	160.1	2/15/99	2/15/99	SA	5554	5688	10
pH	7.5	s.u.	150.1	2/12/99	2/12/99	RS	5556	5691	---
TRPHC	<0.500	mg/L	418.1	2/15/99	2/15/99	MF	5491	5607	0.5
Total Phenol	<0.07	mg/L	SM 5530 A,D	2/17/99	2/17/99	MD	5559	5697	0.07
Total Radium	<3.54	pCi/L	901.1M		2/22/99	KK			

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/03/99
Page: #5

Order ID Number: 9902000233
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: Trip Blank

Sample Number: 118891

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	5
Acrylonitrile		<5	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	5
Benzene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
Carbon tetrachloride		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
Chlorobenzene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
1,2-dichloroethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
1,1,1-trichloroethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
1,1,2-trichloroethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
Chloroform		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
Dichlorobenzene		<2	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	2
1,1-dichloroethylene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
Dichloropropenes		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
Ethylbenzene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
Bromodichloromethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
Bromomethane		<5	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	5
Chloromethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
Dichlorodifluoromethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
Dichloromethane		<5	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	5
Trichlorofluoromethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
Tetrachloroethylene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
Toluene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
Trichloroethylene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
Vinyl chloride		<2	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	2
m,p-xylene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
o-xylene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
1,1-dichloroethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
Ethylene dibromide		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	1
Methylene chloride		<5	ug/L	S-8260B	2/13/99	2/13/99	JG		5690	5
Surr. Dibromofluoromethane		108	%	S-8260B	2/13/99	2/13/99	JG		5690	72-130
Surr. Toluene-d8		105	%	S-8260B	2/13/99	2/13/99	JG		5690	77-127
Surr. 4-Bromofluorobenzene		106	%	S-8260B	2/13/99	2/13/99	JG		5690	72-131

Quality Control Report
Blanks

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/3/99
Page #6

Order ID Number: 9902000233
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Result	Units	Limit	Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	2/13/99		5690
Acrylonitrile		<5	ug/L	5	2/13/99		5690
Benzene		<1	ug/L	1	2/13/99		5690
Carbon tetrachloride		<1	ug/L	1	2/13/99		5690
Chlorobenzene		<1	ug/L	1	2/13/99		5690
1,2-dichloroethane		<1	ug/L	1	2/13/99		5690
1,1,2,2-tetrachloroethane		<1	ug/L	1	2/13/99		5690
1,1,1-trichloroethane		<1	ug/L	1	2/13/99		5690
1,1,2-trichloroethane		<1	ug/L	1	2/13/99		5690
1,1,2-trichloroethylene		<1	ug/L	1	2/13/99		5690
Chloroform		<1	ug/L	1	2/13/99		5690
[illegible]hlorobenzene		<2	ug/L	2	2/13/99		5690
[illegible]-dichloroethylene		<1	ug/L	1	2/13/99		5690
Dichloropropenes		<1	ug/L	1	2/13/99		5690
Ethylbenzene		<1	ug/L	1	2/13/99		5690
Bromodichloromethane		<1	ug/L	1	2/13/99		5690
Bromomethane		<5	ug/L	5	2/13/99		5690
Chloromethane		<1	ug/L	1	2/13/99		5690
Dichlorodifluoromethane		<1	ug/L	1	2/13/99		5690
Dichloromethane		<5	ug/L	5	2/13/99		5690
Trichlorofluoromethane		<1	ug/L	1	2/13/99		5690
Tetrachloroethylene		<1	ug/L	1	2/13/99		5690
Toluene		<1	ug/L	1	2/13/99		5690
Trichloroethylene		<1	ug/L	1	2/13/99		5690
Vinyl chloride		<2	ug/L	2	2/13/99		5690
m,p-xylene		<1	ug/L	1	2/13/99		5690
o-xylene		<1	ug/L	1	2/13/99		5690
1,1-dichloroethane		<1	ug/L	1	2/13/99		5690
Ethylene dibromide		<1	ug/L	1	2/13/99		5690
cis-1,2-dichlorethylene		<1	ug/L	1	2/13/99		5690
trans-1,2-dichloroethylene		<1	ug/L	1	2/13/99		5690
Methylene chloride		<5	ug/L	5	2/13/99		5690
Surr. Dibromofluoromethane		109	%	72-130	2/13/99		5690
Surr. Toluene-d8		104	%	77-127	2/13/99		5690
Surr. 4-Bromofluorobenzene		107	%	72-131	2/13/99		5690

Order ID Number: 9902000233 Date: 3/3/99

Project Name: Shell Westgate Page #7

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Benzidine		<0.01	mg/L	0.01	02/13/99	5555	5689
Hexachlorobenzene		<0.001	mg/L	0.001	02/13/99	5555	5689
Pentachlorobenzene		<0.001	mg/L	0.001	02/13/99	5555	5689
1,2,4,5-tetrachlorobenzene		<0.001	mg/L	0.001	02/13/99	5555	5689
Hexachloroethane		<0.001	mg/L	0.001	02/13/99	5555	5689
2,4-dichlorphenol		<0.025	mg/L	0.025	02/13/99	5555	5689
2,4,5-trichlorophenol		<0.005	mg/L	0.005	02/13/99	5555	5689
2,4,6-trichlorophenol		<0.005	mg/L	0.005	02/13/99	5555	5689
bis (2-chloroethyl) ether		<0.005	mg/L	0.005	02/13/99	5555	5689
bis (2-chloroisopropyl) ether		<0.005	mg/L	0.005	02/13/99	5555	5689
bis (chloromethyl) ether		<0.005	mg/L	0.005	02/13/99	5555	5689
3,3-dichlorobenzidine		<0.001	mg/L	0.001	02/13/99	5555	5689
2,4-dinitrotoluene		<0.001	mg/L	0.001	02/13/99	5555	5689
Diphenylhydrazine		<0.005	mg/L	0.005	02/13/99	5555	5689
Hexachlorobutadiene		<0.001	mg/L	0.001	02/13/99	5555	5689
Hexachlorocyclopentadiene		<0.005	mg/L	0.005	02/13/99	5555	5689
Isophorone		<0.005	mg/L	0.005	02/13/99	5555	5689
Nitrobenzene		<0.001	mg/L	0.001	02/13/99	5555	5689
2,4-dinitro-o-cresol		<0.005	mg/L	0.005	02/13/99	5555	5689
2,4-dinitrophenols		<0.025	mg/L	0.025	02/13/99	5555	5689
n-nitrosodiethylamine		<0.001	mg/L	0.001	02/13/99	5555	5689
N-nitrosodimethylamine		<0.001	mg/L	0.001	02/13/99	5555	5689
[illegible]itrosodibutylamine		<0.005	mg/L	0.005	02/13/99	5555	5689
[illegible]nitrosodiphenylamine		<0.001	mg/L	0.001	02/13/99	5555	5689
N-nitrosopyrrolidine		<0.001	mg/L	0.001	02/13/99	5555	5689
Pentachlorophenol		<0.005	mg/L	0.005	02/13/99	5555	5689
Dibutyl phthalate		<0.001	mg/L	0.001	02/13/99	5555	5689
di-2-ethylhexyl phthalate		<0.005	mg/L	0.005	02/13/99	5555	5689
Diethyl phthalate		<0.001	mg/L	0.001	02/13/99	5555	5689
Dimethyl phthalate		<0.001	mg/L	0.001	02/13/99	5555	5689
Anthracene		<0.001	mg/L	0.001	02/13/99	5555	5689
3,4-benzofluranthene		<0.001	mg/L	0.001	02/13/99	5555	5689
Benzo(k)fluoranthene		<0.001	mg/L	0.001	02/13/99	5555	5689
Fluoranthene		<0.001	mg/L	0.001	02/13/99	5555	5689
Fluorene		<0.001	mg/L	0.001	02/13/99	5555	5689
Phenanthrene		<0.001	mg/L	0.001	02/13/99	5555	5689
Pyrene		<0.001	mg/L	0.001	02/13/99	5555	5689
Naphthalene		<0.001	mg/L	0.001	02/13/99	5555	5689
1-methylnaphthalene		<0.001	mg/L	0.001	02/13/99	5555	5689
2-methylnaphthalene		<0.001	mg/L	0.001	02/13/99	5555	5689
Benzo-a-pyrene		<0.001	mg/L	0.001	02/13/99	5555	5689
Phenol		<0.001	mg/L	0.001	02/13/99	5555	5689
Surr. 2-Fluorophenol		42	%	21-100	02/13/99	5555	5689
Surr. Phenol-d6		18	%	10-94	02/13/99	5555	5689
Surr. Nitrobenzene-d5		77	%	35-114	02/13/99	5555	5689
Surr. 2-Fluorobiphenyl		84	%	43-116	02/13/99	5555	5689
Surr. 2,4,6-Tribromophenol		66	%	10-123	02/13/99	5555	5689
[illegible]rr. Terphenyl-d14	*	150	%	35-141	02/13/99	5555	5689

*Surrogate out of control limits. (33-141)

Quality Control Report
Blanks

Order ID Number: 9902000233 Date: 03/03/99
Project Name: Shell Westgate Page #8
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
PCB		<0.001	mg/L	0.001	02/17/99	5558	5693
Arsenic		<0.10	mg/L	0.10	02/16/99	5557	5692
Barium		<0.10	mg/L	0.10	02/16/99	5557	5692
Cadmium		<0.01	mg/L	0.01	02/16/99	5557	5692
Chromium		<0.05	mg/L	0.05	02/16/99	5557	5692
Lead		<0.05	mg/L	0.05	02/16/99	5557	5692
Total Mercury		<0.0002	mg/L	0.0002	02/18/99	5560	5694
Selenium		<0.05	mg/L	0.05	02/16/99	5557	5692
Silver		<0.05	mg/L	0.05	02/16/99	5557	5692
Uranium		<0.10	mg/L	0.10	02/16/99	5557	5692
Copper		<0.10	mg/L	0.10	02/16/99	5557	5692
Iron		<0.10	mg/L	0.10	02/16/99	5557	5692
Manganese		<0.10	mg/L	0.10	02/16/99	5557	5692
Zinc		<0.10	mg/L	0.10	02/16/99	5557	5692
Aluminum		<0.10	mg/L	0.10	02/16/99	5557	5692
Boron		<0.10	mg/L	0.10	02/16/99	5557	5692
Cobalt		<0.05	mg/L	0.05	02/16/99	5557	5692
Molybdenum		<0.10	mg/L	0.10	02/16/99	5557	5692
Nickel		<0.10	mg/L	0.10	02/16/99	5557	5692
Cyanide		<0.01	mg/L	0.01	02/18/99	5561	5695
Fluoride		<0.1	mg/L	0.1	02/12/99	5562	5696
Nitrate		<0.2	mg/L	0.2	02/12/99	5562	5696
Chloride		<0.5	mg/L	0.5	02/12/99	5562	5696
Sulfate		<0.5	mg/L	0.5	02/12/99	5562	5696
Total Dissolved Solids		<10	mg/L	10	02/15/99	5554	5688
TRPHC		<0.500	mg/L	0.5	02/15/99	5491	5607
Total Phenols		<0.07	mg/L	0.07	02/17/99	5559	5697

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/03/99

Order ID Number: 9902000233
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	98	98	02/13/99	5690
1,1-Dichloroethene		100	ug/L	117	117	02/13/99	5690
Chloroform		100	ug/L	120	120	02/13/99	5690
1,2-Dichloropropane		100	ug/L	103	103	02/13/99	5690
Toluene		100	ug/L	107	107	02/13/99	5690
Chlorobenzene		100	ug/L	100	100	02/13/99	5690
Ethylbenzene		100	ug/L	108	108	02/13/99	5690
Surr. Dibromofluoromethane		100	%	108	108	02/13/99	5690
Surr. Toluene-d8		100	%	103	103	02/13/99	5690
Surr. 4-Bromofluorobenzene		100	%	111	111	02/13/99	5690
Phenol		80	mg/L	76	95	02/13/99	5689
1,4-Dichlorobenzene		80	mg/L	77	96	02/13/99	5689
2-nitrophenol		80	mg/L	71	89	02/13/99	5689
2,4-Dichlorophenol		80	mg/L	72	90	02/13/99	5689
Hexachlorobutadiene		80	mg/L	74	93	02/13/99	5689
4-Chloro-3-methylphenol		80	mg/L	69	86	02/13/99	5689
2,4,6-Trichlorophenol		80	mg/L	77	96	02/13/99	5689
Acenaphthene		80	mg/L	75	94	02/13/99	5689
n-Nitrosodiphenylamine		80	mg/L	67	84	02/13/99	5689
Pentachlorophenol		80	mg/L	80	100	02/13/99	5689
Fluoranthene		80	mg/L	71	89	02/13/99	5689
Di-n-octylphthalate		80	mg/L	90	113	02/13/99	5689
Benzo(a)pyrene		80	mg/L	76	95	02/13/99	5689
Surr. 2-Fluorophenol		80	%	74	93	02/13/99	5689
Surr. Phenol-d6		80	%	74	93	02/13/99	5689
Surr. Nitroobenzene-d5		80	%	73	91	02/13/99	5689
Surr. 2-Fluorobiphenyl		80	%	72	90	02/13/99	5689
Surr. 2,4,6-Tribromophenol		80	%	76	95	02/13/99	5689
Surr. Terphenyl-d14		80	%	78	98	02/13/99	5689

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/03/99
Page #10

Order ID Number: 9902000233
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
PCB		0.40	mg/L	0.47	118	02/17/99	5693
Arsenic		1.0	mg/L	1.0	100	02/16/99	5692
Barium		1.0	mg/L	0.96	96	02/16/99	5692
Cadmium		1.0	mg/L	0.99	99	02/16/99	5692
Chromium		1.0	mg/L	0.95	95	02/16/99	5692
Lead		1.0	mg/L	0.98	98	02/16/99	5692
Total Mercury		0.0010	mg/L	0.00096	96	02/18/99	5694
Selenium		1.0	mg/L	1.0	100	02/16/99	5692
Silver		0.20	mg/L	0.19	95	02/16/99	5692
Uranium		1.0	mg/L	1.0	100	02/16/99	5692
Copper		1.0	mg/L	0.97	97	02/16/99	5692
Iron		1.0	mg/L	0.95	95	02/16/99	5692
Manganese		1.0	mg/L	0.95	95	02/16/99	5692
Zinc		1.0	mg/L	0.98	98	02/16/99	5692
Aluminum		1.0	mg/L	1.0	100	02/16/99	5692
Boron		1.0	mg/L	0.96	96	02/16/99	5692
Cobalt		1.0	mg/L	0.95	95	02/16/99	5692
Molybdenum		1.0	mg/L	0.97	97	02/16/99	5692
Nickel		1.0	mg/L	0.97	97	02/16/99	5692
Cyanide		0.120	mg/L	0.109	91	02/18/99	5695
Fluoride		2.5	mg/L	2.52	101	02/12/99	5696
Nitrate		5.0	mg/L	4.765	95	02/12/99	5696
Chloride		12.5	mg/L	11.87	95	02/12/99	5696
Sulfate		12.5	mg/L	12.10	97	02/12/99	5696
TDS		1000	mg/L	993	99	02/15/99	5688
pH		7.0	s.u.	7.0	100	02/12/99	5691
TRPHC		100	mg/L	105	105	02/15/99	5607
Total Phenol		0.80	mg/L	0.837	105	02/17/99	5697

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/3/99

Order ID Number: 9902000233
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	113	113	100	121	121	7	2/13/99		5690
Benzene		ug/L	<1	100	112	112	100	116	116	4	2/13/99		5690
Trichloroethene		ug/L	<1	100	98	98	100	102	102	4	2/13/99		5690
Toluene		ug/L	<1	100	109	109	100	112	112	3	2/13/99		5690
Chlorobenzene		ug/L	<1	100	105	105	100	111	111	6	2/13/99		5690
Surr. Dibromofluoromethane		%	111	100	110	110	100	111	111	1	2/13/99		5690
Surr. Toluene-d8		%	104	100	104	104	100	105	105	1	2/13/99		5690
Surr. 4-Bromofluorobenzene		%	107	100	107	107	100	107	107	0	2/13/99		5690
Phenol	*	mg/L	<0.001	100	31	31	100	30	30	3	2/13/99	5555	5689
2-Chlorophenol	*	mg/L	<0.005	100	73	73	100	78	78	7	2/13/99	5555	5689
1,4-Dichlorobenzene	*	mg/L	<0.001	100	70	70	100	74	74	6	2/13/99	5555	5689
n-Nitrosodi-n-propylamine	*	mg/L	<0.001	100	71	71	100	76	76	7	2/13/99	5555	5689
1,2,4-trichlorobenzene	*	mg/L	<0.001	100	63	63	100	64	64	2	2/13/99	5555	5689
4-Chloro-3-methylphenol	*	mg/L	<0.005	100	69	69	100	72	72	4	2/13/99	5555	5689
Acenaphthene	*	mg/L	<0.001	100	72	72	100	76	76	5	2/13/99	5555	5689
4-Nitrophenol	*	mg/L	<0.005	100	24	24	100	23	23	4	2/13/99	5555	5689
2,4-Dinitrotoluene	*	mg/L	<0.001	100	80	80	100	80	80	0	2/13/99	5555	5689
Pentachlorophenol	*	mg/L	<0.005	100	75	75	100	75	75	0	2/13/99	5555	5689
Pyrene	*	mg/L	<0.001	100	80	80	100	81	81	1	2/13/99	5555	5689
Surr. 2-Fluorophenol	*	%	42	100	41	41	100	38	38	8	2/13/99	5555	5689
Surr. Phenol-d6	*	%	18	100	28	28	100	28	28	0	2/13/99	5555	5689
Surr. Nitrobenzene-d5	*	%	77	100	72	72	100	75	75	4	2/13/99	5555	5689
Surr. 2-Fluorobiphenyl	*	%	84	100	73	73	100	78	78	7	2/13/99	5555	5689
Surr. 2,4,6-Tribromopheno	*	%	66	100	89	89	100	94	94	5	2/13/99	5555	5689
Surr. Terphenyl-d14	*	%	150	100	95	95	100	95	95	0	2/13/99	5555	5689

*LCS's used for spike and spike duplicate.

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Order ID Number: 9902000233
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/3/99
Page #12

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
PCB		mg/L	<0.1	0.50	0.48	96	0.50	0.57	114	17	2/17/99	5558	5693
Arsenic		mg/L	<0.10	2.0	2.3	115	2.0	2.3	115	0	2/16/99	5557	5692
Barium		mg/L	<0.10	2.0	2.1	105	2.0	2.1	105	0	2/16/99	5557	5692
Cadmium		mg/L	<0.01	2.0	2.1	105	2.0	2.1	105	0	2/16/99	5557	5692
Chromium		mg/L	<0.05	2.0	2.0	100	2.0	2.0	100	0	2/16/99	5557	5692
Lead		mg/L	<0.05	2.0	2.2	85	2.0	2.1	105	5	2/16/99	5557	5692
Total Mercury		mg/L	<0.0002	0.0010	0.00090	90	0.0010	0.00080	80	12	2/18/99	5560	5694
Selenium		mg/L	<0.05	2.0	2.2	110	2.0	2.1	105	5	2/16/99	5557	5692
Silver		mg/L	<0.05	0.25	0.25	100	0.25	0.24	96	4	2/16/99	5557	5692
Uranium		mg/L	<0.10	2.0	2.0	100	2.0	2.1	105	5	2/16/99	5557	5692
Copper		mg/L	<0.10	2.0	2.1	105	2.0	2.1	105	0	2/16/99	5557	5692
Iron		mg/L	<0.10	2.0	2.1	105	2.0	2.0	100	5	2/16/99	5557	5692
Manganese		mg/L	<0.10	2.0	2.0	100	2.0	2.0	100	0	2/16/99	5557	5692
Zinc		mg/L	<0.10	2.0	2.1	105	2.0	2.1	105	0	2/16/99	5557	5692
Aluminum		mg/L	<0.10	2.0	2.1	105	2.0	2.0	100	5	2/16/99	5557	5692
Boron		mg/L	0.35	2.0	2.5	108	2.0	2.5	108	0	2/16/99	5557	5692
Cobalt		mg/L	<0.05	2.0	2.1	105	2.0	2.0	100	5	2/16/99	5557	5692
Molybdenum		mg/L	<0.10	0.20	0.21	105	0.20	0.20	100	5	2/16/99	5557	5692
Nickel		mg/L	<0.10	2.0	2.1	105	2.0	2.0	100	5	2/16/99	5557	5692
Cyanide		mg/L	<0.01	0.120	0.103	86	0.120	0.101	84	2	2/18/99	5561	5695
Fluoride		mg/L	8.09	25	33.03	100	25	32.85	99	1	2/12/99	5562	5696
Nitrate		mg/L	9.88	50	56.01	92	50	56.36	93	1	2/12/99	5562	5696
Chloride		mg/L	359.12	125	463.63	84	125	464.58	84	0	2/12/99	5562	5696
Sulfate		mg/L	301.69	125	418.97	94	125	416.62	92	1	2/12/99	5562	5696
TRPHC	*	mg/L	<0.500	8.5	7.63	90	8.5	7.63	90	0	2/15/99	5491	5607
Total Phenol		mg/L	<0.07	0.80	0.821	103	0.80	0.827	103	1	2/17/99	5559	5697

*LCS's used for spike and spike duplicate.

Quality Control Report
Duplicate

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/03/99

Order ID Number: 9902000233
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Duplicate Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	7.3	7.3	0	2/12/99	5556	5691
TDS		mg/L	6,600	6,700	2	2/15/99	5554	5688

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-99-0139	**P.O. Number:**	
Client I.D.:	118890	**ARS Sample I.D.:**	ARS-99-0421
Date Sampled:	2/11/99	**Date Received:**	2/17/99
Time Sampled:	N/A	**Time Received**	1540
Type of Sample:	Liquid	**Date of Report**	3/2/99

Analysis Description	Analysis Result	Analysis Error $\pm 2\sigma$	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	BDL	N/A	1.83	pCi/L	EPA 903	2/22/99 1857	KK
Ra-228	BDL	N/A	1.71	pCi/L	EPA 904	2/22/99 1404	KK

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

118890-91

Page ____ of

6701 Aberdeen Avenue, Ste 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

7725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 233

Company Name:	BBC International, Inc.	Phone #:	(505) 397-6388
Address: (Street, City, Zip)	1324 W. Marland, Hobbs, NM 88240	Fax #:	(505) 397-0397
Contact Person:	Cliff P. Brunson		
Invoice to: (If different from above)	Shell E & P Technology Co. ATTN: Wayne Hamilton		
Project #:		Project Name:	Shell Westgate
Project Location:	Hobbs, New Mexico	Sampler Signature:	Sharon E. Hall

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
118890	GMW 11	3	voa	✓						✓			2/11/99	2:50
4t	GMW 11	1	500 m	✓					✓	✓			2/11/99	2:50
	GMW 11 MS/MSD	10	1 tr	✓				✓	✓	✓			2/11/99	2:50
118891	Trip Blanks	2	voa	✓						✓				

ANALYSIS REQUEST (Circle or Specify Method No.)

| | | | | | |

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/03/99
Page #1

Order ID Number: 990200234
Project Name: Shell Westgate
Project Location: Hobbs, NM

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
118892	TMW 4	Water	2/11/99	10:20 a.m.	02/12/99
[illegible]893	Trip Blank	Water	2/11/99		02/12/99

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

This report shall not be reproduced except in its entirety, without written approval of the laboratory.

These results represent only the samples received in the laboratory.

This report consists of a total of 14 pages.

*Semi-Volatile method blank surrogate out of control limits.

Dr. Blair Leftwich
Director

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/3/99
Page #2

Order ID Number: 990200234
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TMW 4 Sample Number: 118892

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	5
Acrylonitrile		<5	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	5
Benzene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
Carbon tetrachloride		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
Chlorobenzene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
1,2-dichloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
1,1,1-trichloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
1,1,2-trichloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
Chloroform		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
Dichlorobenzene		<2	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	2
1,1-dichloroethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
Dichloropropenes		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
Ethylbenzene		1.5	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
Bromodichloromethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
Bromomethane		<5	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	5
Chloromethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
Dichlorodifluoromethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
Dibromoethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
Trichlorofluoromethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
Tetrachloroethene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
Toluene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
Trichloroethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
Vinyl chloride		<2	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	2
m,p-xylene		4.6	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
o-xylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
1,1-dichloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
Ethylene dibromide		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	1
Methylene chloride		<5	ug/L	S-8260B	02/13/99	02/13/99	JG		5699	5
Surr. Dibromofluoromethane		108	%	S-8260B	02/13/99	02/13/99	JG			72-130
Surr. Toluene-d8		103	%	S-8260B	02/13/99	02/13/99	JG			77-127
Surr. 4-Bromofluorobenzene		109	%	S-8260B	02/13/99	02/13/99	JG			72-131

Order ID Number: 990200234 Page #3

Field Code: TMW 4 Sample Number: 118892

Parameter	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine	<0.01	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.01
Hexachlorobenzene	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
Pentachlorobenzene	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
1,2,4,5-tetrachlorobenzene	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
Hexachloroethane	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
2,4-dichlorphenol	<0.025	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.025
2,4,5-trichlorophenol	<0.005	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.005
2,4,6-trichlorophenol	<0.005	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.005
bis (2-chloroethl) ether	<0.005	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.005
bis (2-chloroisopropyl) ether	<0.005	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.005
bis (chloromethyl) ether	<0.005	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.005
3,3-dichlorobenzidine	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
2,4-dinitrotoluene	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.005
Diphenylhydrazine	<0.005	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.005
Hexachlorobutadiene	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
Hexachlorocyclopentadiene	<0.005	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.005
Isophorone	<0.005	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.005
Nitrobenzene	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
2,4-dinitro-o-cresol	<0.005	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.005
2,4-dinitrophenols	<0.025	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.025
n-nitrosodiethylamine	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
N-nitrosodimethylamine	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
N-nitrosodibutylamine	<0.005	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.005
N-nitrosodiphenylamine	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
N-nitrosopyrrolidine	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
Pentachlorophenol	<0.005	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.005
Dibutyl phthalate	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
di-2-ethylhexyl phthalate	<0.005	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
Diethyl phthalate	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
Dimethyl phthalate	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
Anthracene	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
3,4-Benzofluoranthene	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
Benzo(k)fluoranthene	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
Fluoranthene	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
Fluorene	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
Phenanthrene	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
Pyrene	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
Naphthalene	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
1-methylnaphthalene	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
2-methylnaphthalene	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
Benzo-a-pyrene	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
Phenol	<0.001	mg/L	8270C	2/13/99	2/13/99	SO	5563	5698	0.001
Surr. 2-Fluorophenol	55	%	8270C	2/13/99	2/13/99	SO	5563	5698	21-100
Surr. Phenol-d6	26	%	8270C	2/13/99	2/13/99	SO	5563	5698	10-94
Surr. Nitrobenzene-d5	84	%	8270C	2/13/99	2/13/99	SO	5563	5698	35-114
Surr. 2-Fluorobiphenyl	90	%	8270C	2/13/99	2/13/99	SO	5563	5698	43-116
Surr. 2,4,6-Tribromophenol	96	%	8270C	2/13/99	2/13/99	SO	5563	5698	10-123
Surr. Terphenyl-d14	118	%	8270C	2/13/99	2/13/99	SO	5563	5698	33-141

Order ID Number: 990200234
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/1/99
Page: #4

Field Code: TMW 4

Sample Number: 118892

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
PCB's		<0.001	mg/L	8082	2/17/99	2/17/99	CS	5566	5702	0.001
Arsenic		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5565	5701	0.10
Barium		0.18	mg/L	6010B	2/11/99	2/11/99	RR	5565	5701	0.10
Cadmium		<0.01	mg/L	6010B	2/11/99	2/11/99	RR	5565	5701	0.01
Chromium		<0.05	mg/L	6010B	2/11/99	2/11/99	RR	5565	5701	0.05
Lead		<0.05	mg/L	6010B	2/11/99	2/11/99	RR	5565	5701	0.05
Total Mercury		<0.0002	mg/L	7471A	2/11/99	2/12/99	BP	5565	5701	0.0002
Selenium		<0.05	mg/L	6010B	2/11/99	3/1/99	RR	5565	5701	0.05
Silver		<0.05	mg/L	6010B	2/11/99	2/11/99	RR	5565	5701	0.05
Uranium		<0.10	mg/L	6010B	2/11/99	2/15/99	RR	5565	5701	0.10
Copper		<0.10	mg/L	6010B	2/11/99	2/11/99	RR	5565	5701	0.10
Iron		<0.10	mg/L	6010B	2/11/99	2/15/99	RR	5565	5701	0.10
Manganese		<0.10	mg/L	6010B	2/11/99	2/11/99	RR	5565	5701	0.10
Zinc		<0.10	mg/L	6010B	2/11/99	2/11/99	RR	5565	5701	0.10
Aluminum		<0.10	mg/L	6010B	2/11/99	2/15/99	RR	5565	5701	0.10
Boron		0.43	mg/L	6010B	2/11/99	2/11/99	RR	5565	5701	0.10
Cobalt		<0.05	mg/L	6010B	2/11/99	3/1/99	RR	5565	5701	0.05
Molybdenum		<0.10	mg/L	6010B	2/11/99	2/11/99	RR	5565	5701	1.0
Nickel		<0.10	mg/L	6010B	2/11/99	2/15/99	RR	5565	5701	0.50
Cyanide		<0.01	mg/L	SM 4500CN C,E	2/16/99	2/16/99	MD	5567	5703	0.01
Fluoride		2.4	mg/L	300.0	2/12/99	2/12/99	JS	5568	5704	0.1
Nitrate		3.7	mg/L	300.0	2/12/99	2/12/99	JS	5568	5704	0.2
Chloride		190	mg/L	300.0	2/12/99	2/12/99	JS	5568	5704	0.5
Sulfate		85	mg/L	300.0	2/12/99	2/12/99	JS	5568	5704	0.5
TDS		850	mg/L	160.1	2/15/99	2/15/99	SA	5564	5700	10
pH		7.3	s.u.	150.1	2/12/99	2/12/99	RS	5556	5691	---
TRPHC		6.08	mg/L	418.1	2/13/99	2/15/99	MF	5491	5607	0.5
Total Phenol		<0.07	mg/L	SM 5530 A,D	2/17/99	2/17/99	MD	5559	5697	0.50
Total Radium		6.57	pCi/L	901.1M	2/22/99	2/22/99	KK			

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/3/99
Page #5

Order ID Number: 990200234
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: Trip Blank

Sample Number: 118893

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	5
Acrylonitrile		<5	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	5
Benzene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
Carbon tetrachloride		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
Chlorobenzene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
1,2-dichloroethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
1,1,1-trichloroethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
1,1,2-trichloroethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
Chloroform		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
Dichlorobenzene		<2	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	2
1,1-dichloroethylene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
Dichloropropenes		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
Ethylbenzene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
Bromodichloromethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
Bromomethane		<5	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	5
Chloromethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
Dichlorodifluoromethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
Dichloromethane		<5	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	5
Trichlorofluoromethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
Tetrachloroethylene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
Toluene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
Trichloroethylene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
Vinyl chloride		<2	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	2
m,p-xylene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
o-xylene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
1,1-dichloroethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
Ethylene dibromide		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	1
Methylene chloride		<5	ug/L	S-8260B	2/13/99	2/13/99	JG		5699	5
Surr. Dibromofluoromethane		107	%	S-8260B	2/13/99	2/13/99	JG		5699	72-130
Surr. Toluene-d8		104	%	S-8260B	2/13/99	2/13/99	JG		5699	77-127
Surr. 4-Bromofluorobenzene		105	%	S-8260B	2/13/99	2/13/99	JG		5699	72-131

Quality Control Report
Blanks

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/3/99
Page #6

Order ID Number: 990200234
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Result	Units	Limit	Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	2/13/99		5699
Acrylonitrile		<5	ug/L	5	2/13/99		5699
Benzene		<1	ug/L	1	2/13/99		5699
Carbon tetrachloride		<1	ug/L	1	2/13/99		5699
Chlorobenzene		<1	ug/L	1	2/13/99		5699
1,2-dichloroethane		<1	ug/L	1	2/13/99		5699
1,1,2,2-tetrachloroethane		<1	ug/L	1	2/13/99		5699
1,1,1-trichloroethane		<1	ug/L	1	2/13/99		5699
1,1,2-trichloroethane		<1	ug/L	1	2/13/99		5699
1,1,2-trichloroethylene		<1	ug/L	1	2/13/99		5699
Chloroform		<1	ug/L	1	2/13/99		5699
Dichlorobenzene		<2	ug/L	2	2/13/99		5699
1,1-dichloroethylene		<1	ug/L	1	2/13/99		5699
Dichloropropenes		<1	ug/L	1	2/13/99		5699
Ethylbenzene		<1	ug/L	1	2/13/99		5699
Bromodichloromethane		<1	ug/L	1	2/13/99		5699
Bromomethane		<5	ug/L	5	2/13/99		5699
Chloromethane		<1	ug/L	1	2/13/99		5699
Dichlorodifluoromethane		<1	ug/L	1	2/13/99		5699
Dichloromethane		<1	ug/L	1	2/13/99		5699
Trichlorofluoromethane		<1	ug/L	1	2/13/99		5699
Tetrachloroethylene		<1	ug/L	1	2/13/99		5699
Toluene		<1	ug/L	1	2/13/99		5699
Trichloroethylene		<1	ug/L	1	2/13/99		5699
Vinyl chloride		<2	ug/L	2	2/13/99		5699
m,p-xylene		<1	ug/L	1	2/13/99		5699
o-xylene		<1	ug/L	1	2/13/99		5699
1,1-dichloroethane		<1	ug/L	1	2/13/99		5699
Ethylene dibromide		<1	ug/L	1	2/13/99		5699
cis-1,2-dichlorethylene		<1	ug/L	1	2/13/99		5699
trans-1,2-dichloroethylene		<1	ug/L	1	2/13/99		5699
Methylene chloride		<5	ug/L	5	2/13/99		5699
Surr. Dibromofluoromethane		109	%	72-130	2/13/99		5699
Surr. Toluene-d8		104	%	77-127	2/13/99		5699
Surr. 4-Bromofluorobenzene		107	%	72-131	2/13/99		5699

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Benzidine		<0.01	mg/L	0.01	02/13/99	5563	5698
Hexachlorobenzene		<0.001	mg/L	0.001	02/12/99	5563	5698
Pentachlorobenzene		<0.001	mg/L	0.001	02/13/99	5563	5698
1,2,4,5-tetrachlorobenzene		<0.001	mg/L	0.001	02/13/99	5563	5698
Hexachloroethane		<0.001	mg/L	0.001	02/13/99	5563	5698
2,4-dichlorphenol		<0.025	mg/L	0.025	02/13/99	5563	5698
2,4,5-trichlorophenol		<0.001	mg/L	0.001	02/13/99	5563	5698
2,4,6-trichlorophenol		<0.001	mg/L	0.001	02/13/99	5563	5698
bis (2-chloroethyl) ether		<0.005	mg/L	0.005	02/13/99	5563	5698
bis (2-chloroisopropyl) ether		<0.005	mg/L	0.005	02/13/99	5563	5698
bis (chloromethyl) ether		<0.001	mg/L	0.001	02/13/99	5563	5698
3,3-dichlorobenzidine		<0.001	mg/L	0.001	02/13/99	5563	5698
2,4-dinitrotoluene		<0.001	mg/L	0.001	02/13/99	5563	5698
Diphenylhydrazine		<0.001	mg/L	0.001	02/13/99	5563	5698
Hexachlorobutadiene		<0.001	mg/L	0.001	02/13/99	5563	5698
Hexachlorocyclopentadiene		<0.005	mg/L	0.005	02/13/99	5563	5698
Isophorone		<0.005	mg/L	0.005	02/13/99	5563	5698
Nitrobenzene		<0.001	mg/L	0.001	02/13/99	5563	5698
2,4-dinitro-o-cresol		<0.005	mg/L	0.005	02/13/99	5563	5698
2,4-dinitrophenols		<0.025	mg/L	0.025	02/13/99	5563	5698
N-nitrosodiethylamine		<0.001	mg/L	0.001	02/13/99	5563	5698
N-nitrosodimethylamine		<0.001	mg/L	0.001	02/13/99	5563	5698
N-nitrosodibutylamine		<0.005	mg/L	0.005	02/13/99	5563	5698
N-nitrosodiphenylamine		<0.001	mg/L	0.001	02/13/99	5563	5698
N-nitrosopyrrolidine		<0.001	mg/L	0.001	02/13/99	5563	5698
Pentachlorophenol		<0.005	mg/L	0.005	02/13/99	5563	5698
Dibutyl phthalate		<0.001	mg/L	0.001	02/13/99	5563	5698
di-2-ethylhexyl phthalate		<0.005	mg/L	0.005	02/13/99	5563	5698
Diethyl phthalate		<0.001	mg/L	0.001	02/13/99	5563	5698
Dimethyl phthalate		<0.001	mg/L	0.001	02/13/99	5563	5698
Anthracene		<0.001	mg/L	0.001	02/13/99	5563	5698
3,4-benzofluoranthene		<0.001	mg/L	0.001	02/13/99	5563	5698
Benzo(k)fluoranthene		<0.001	mg/L	0.001	02/13/99	5563	5698
Fluoranthene		<0.001	mg/L	0.001	02/13/99	5563	5698
Fluorene		<0.001	mg/L	0.001	02/13/99	5563	5698
Phenanthrene		<0.001	mg/L	0.001	02/13/99	5563	5698
Pyrene		<0.001	mg/L	0.001	02/13/99	5563	5698
Naphthalene		<0.001	mg/L	0.001	02/13/99	5563	5698
1-methylnaphthalene		<0.001	mg/L	0.001	02/13/99	5563	5698
2-methylnaphthalene		<0.001	mg/L	0.001	02/13/99	5563	5698
Benzo-a-pyrene		<0.001	mg/L	0.001	02/13/99	5563	5698
Phenol		<0.001	mg/L	0.001	02/13/99	5563	5698
Surr. 2-Fluorophenol		42	%	21-100	02/13/99	5563	5698
Surr. Phenol-d6		18	%	10-94	02/13/99	5563	5698
Surr. Nitroobenzene-d5		77	%	35-114	02/13/99	5563	5698
Surr. 2-Fluorobiphenyl		84	%	43-116	02/13/99	5563	5698
Surr. 2,4,6-Tribromophenol		66	%	10-123	02/13/99	5563	5698
Surr. Terphenyl-d14	*	150	%	33-141	02/13/99	5563	5698

* Surrogate out of control limit. (33-141)

Quality Control Report
Blanks

Order ID Number: 990200234 Date: 03/03/99
Project Name: Shell Westgate Page #8
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
PCB		<0.001	mg/L	0.001	02/17/99	5566	5702
Arsenic		<0.10	mg/L	0.10	02/16/99	5565	5701
Barium		<0.10	mg/L	0.10	02/16/99	5565	5701
Cadmium		<0.01	mg/L	0.01	02/16/99	5565	5701
Chromium		<0.05	mg/L	0.05	02/16/99	5565	5701
Lead		<0.05	mg/L	0.05	02/16/99	5565	5701
Total Mercury		<0.0002	mg/L	0.0002	02/18/99	5560	5694
Selenium		<0.05	mg/L	0.05	02/16/99	5565	5701
Silver		<0.05	mg/L	0.05	02/16/99	5565	5701
Uranium		<0.10	mg/L	0.10	02/16/99	5565	5701
Copper		<0.10	mg/L	0.10	02/16/99	5565	5701
Iron		<0.10	mg/L	0.10	02/16/99	5565	5701
Manganese		<0.10	mg/L	0.10	02/16/99	5565	5701
Zinc		<0.10	mg/L	0.10	02/16/99	5565	5701
Aluminum		<0.10	mg/L	0.10	02/16/99	5565	5701
Boron		<0.10	mg/L	0.10	02/16/99	5565	5701
Cobalt		<0.05	mg/L	0.05	02/16/99	5565	5701
Molybdenum		<0.10	mg/L	0.10	02/16/99	5565	5701
Nickel		<0.10	mg/L	0.10	02/16/99	5565	5701
Cyanide		<0.01	mg/L	0.01	02/18/99	5567	5703
Fluoride		<0.1	mg/L	0.1	02/12/99	5568	5704
Nitrate		<0.2	mg/L	0.2	02/12/99	5568	5704
Chloride		<0.5	mg/L	0.5	02/12/99	5568	5704
Sulfate		<0.5	mg/L	0.5	02/12/99	5568	5704
Total Dissolved Solids		<10	mg/L	10	02/15/99	5564	5700
TRPHC		<0.500	mg/L	0.5	02/15/99	5491	5607
Total Phenols		<0.07	mg/L	0.07	02/17/99	5559	5697

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/3/99
Page #9

Order ID Number: 990200234
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	98	98	02/13/99	5699
1,1-Dichloroethene		100	ug/L	117	117	02/13/99	5699
Chloroform		100	ug/L	120	120	02/13/99	5699
1,2-Dichloropropane		100	ug/L	103	103	02/13/99	5699
Toluene		100	ug/L	107	107	02/13/99	5699
Chlorobenzene		100	ug/L	100	100	02/13/99	5699
Ethylbenzene		100	ug/L	108	108	02/13/99	5699
Surr. Dibromofluoromethane		100	ug/L	108	108	02/13/99	5699
Surr. Toluene-d8		100	ug/L	103	103	02/13/99	5699
Surr. 4-Bromofluorobenzene		100	ug/L	111	111	02/13/99	5699
Phenol		80	mg/L	76	95	02/13/99	5698
4-Dichlorobenzene		80	mg/L	77	96	02/13/99	5698
2-nitrophenol		80	mg/L	71	89	02/13/99	5698
2,4-Dichlorophenol		80	mg/L	72	90	02/13/99	5698
Hexachlorobutadiene		80	mg/L	74	93	02/13/99	5698
4-Chloro-3-methylphenol		80	mg/L	69	86	02/13/99	5698
2,4,6-Trichlorophenol		80	mg/L	77	96	02/13/99	5698
Acenaphthene		80	mg/L	75	94	02/13/99	5698
n-Nitrosodiphenylamine		80	mg/L	67	84	02/13/99	5698
Pentachlorophenol		80	mg/L	80	100	02/13/99	5698
Fluoranthene		80	mg/L	71	89	02/13/99	5698
Di-n-octylphthalate		80	mg/L	92	115	02/13/99	5698
Benzo(a)pyrene		80	mg/L	76	95	02/13/99	5698
Surr. 2-Fluorophenol		80	mg/L	74	93	02/13/99	5698
Surr. Phenol-d6		80	mg/L	74	93	02/13/99	5698
Surr. Nitrobenzene-d5		80	mg/L	73	91	02/13/99	5698
Surr. 2-Fluorobiphenyl		80	mg/L	72	90	02/13/99	5698
Surr. 2,4,6-Tribromophenol		80	mg/L	76	95	02/13/99	5698
Surr. Terphenyl-d14		80	mg/L	78	98	02/13/99	5698

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/3/99
Page #10

Order ID Number: 990200234
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
PCB		0.40	mg/L	0.47	118	02/17/99	5693
Arsenic		1.0	mg/L	1.0	100	02/13/99	5701
Barium		1.0	mg/L	0.96	96	02/16/99	5701
Cadmium		1.0	mg/L	0.99	99	02/16/99	5701
Chromium		1.0	mg/L	0.95	95	02/16/99	5701
Lead		1.0	mg/L	0.98	98	02/16/99	5701
Total Mercury		0.0010	mg/L	0.00096	96	02/18/99	5694
Selenium		1.0	mg/L	1.0	100	02/16/99	5701
Silver		0.20	mg/L	0.19	95	02/16/99	5701
Uranium		1.0	mg/L	1.0	100	02/16/99	5701
Copper		1.0	mg/L	0.97	97	02/16/99	5701
Iron		1.0	mg/L	0.95	95	02/16/99	5701
Manganese		1.0	mg/L	0.95	95	02/16/99	5701
Zinc		1.0	mg/L	0.98	98	02/16/99	5701
Aluminum		1.0	mg/L	1.0	100	02/16/99	5701
Boron		1.0	mg/L	0.96	96	02/16/99	5701
Cobalt		1.0	mg/L	0.95	95	02/16/99	5701
Molybdenum		1.0	mg/L	0.97	97	02/16/99	5701
Nickel		1.0	mg/L	0.97	97	02/16/99	5701
Cyanide		0.120	mg/L	0.109	91	02/18/99	5703
Fluoride		2.5	mg/L	2.52	101	02/12/99	5704
Nitrate		5.0	mg/L	4.765	95	02/12/99	5704
Chloride		12.5	mg/L	11.87	95	02/12/99	5704
Sulfate		12.5	mg/L	12.10	97	02/12/99	5704
TDS		1000	mg/L	993	99	02/15/99	5700
pH		7.0	s.u.	7.0	100	02/12/99	5691
TRPHC		100	mg/L	105	105	02/15/99	5607
Total Phenol		0.80	mg/L	0.837	105	02/17/99	5697

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/3/99

Order ID Number: 990200234
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	113	113	100	121	121	7	02/13/99		5699
Benzene		ug/L	<1	100	112	112	100	116	116	4	02/13/99		5699
Trichloroethene		ug/L	<1	100	98	98	100	102	102	4	02/13/99		5699
Toluene		ug/L	<1	100	109	109	100	112	112	3	02/13/99		5699
Chlorobenzene		ug/L	<1	100	105	105	100	111	111	6	02/13/99		5699
Surr. Dibromofluoromethane		%	11	100	110	110	100	111	111	1	02/13/99		5699
Surr. Toluene-d8		%	104	100	104	104	100	105	105	1	02/13/99		5699
Surr. 4-Bromofluorobenzene		%	107	100	107	107	100	107	107	0	02/13/99		5699
Phenol		mg/L	<0.001	100	31	31	100	30	30	3	02/13/99	5563	5698
2-Chlorophenol		mg/L	<0.005	100	73	73	100	78	78	7	02/13/99	5563	5698
1,4-Dichlorobenzene		mg/L	<0.001	100	70	70	100	74	74	6	02/13/99	5563	5698
n-Nitrosodi-n-propylamine		mg/L	<0.001	100	71	71	100	76	76	7	02/13/99	5563	5698
1,2,4-trichlorobenzene		mg/L	<0.001	100	63	63	100	64	64	2	02/13/99	5563	5698
4-Chloro-3-methylphenol		mg/L	<0.005	100	69	69	100	72	72	4	02/13/99	5563	5698
Acenaphthene		mg/L	<0.001	100	72	72	100	76	76	5	02/13/99	5563	5698
4-Nitrophenol		mg/L	<0.005	100	24	24	100	23	23	4	02/13/99	5563	5698
2,4-Dinitrotoluene		mg/L	<0.001	100	80	80	100	80	80	0	02/13/99	5563	5698
Pentachlorophenol		mg/L	<0.001	100	75	75	100	75	75	0	02/13/99	5563	5698
Pyrene		mg/L	<0.001	100	80	80	100	81	81	1	02/13/99	5563	5698
Surr. 2-Fluorophenol		%	42	100	41	41	100	38	38	8	02/13/99	5563	5698
Surr. Phenol-d6		%	18	100	28	28	100	28	28	0	02/13/99	5563	5698
Surr. Nitroobenzene-d5		%	77	100	72	72	100	75	75	4	02/13/99	5563	5698
Surr. 2-Fluorobiphenyl		%	84	100	73	73	100	78	78	7	02/13/99	5563	5698
Surr. 2,4,6-Tribromophenol		%	66	100	89	89	100	94	94	5	02/13/99	5563	5698
Surr. Terphenyl-d14		%	150	100	95	95	100	95	95	0	02/13/99	5563	5698

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Order ID Number: 990200234
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/3/99
Page #12

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
PCB		mg/L	<0.1	0.50	0.48	96	0.50	0.57	114	17	2/17/99	5571	5715
Arsenic		mg/L	<0.10	2.0	2.3	115	2.0	2.3	115	0	2/16/99	5565	5701
Barium		mg/L	<0.10	2.0	2.1	105	2.0	2.1	105	0	2/16/99	5565	5701
Cadmium		mg/L	<0.01	2.0	2.1	105	2.0	2.1	105	0	2/16/99	5565	5701
Chromium		mg/L	<0.05	2.0	2.0	100	2.0	2.0	100	0	2/16/99	5565	5701
Lead		mg/L	<0.05	2.0	2.2	85	2.0	2.1	105	5	2/16/99	5565	5701
Total Mercury		mg/L	<0.0002	0.0010	0.00090	90	0.0010	0.00080	80	12	2/18/99	5560	5694
Selenium		mg/L	<0.05	2.0	2.2	110	2.0	2.1	105	5	2/16/99	5565	5701
Silver		mg/L	<0.05	0.25	0.25	100	0.25	0.24	96	4	2/16/99	5565	5701
Uranium		mg/L	<0.10	2.0	2.0	100	2.0	2.1	105	5	2/16/99	5565	5701
Copper		mg/L	<0.10	2.0	2.1	105	2.0	2.1	105	0	2/16/99	5565	5701
Iron		mg/L	<0.10	2.0	2.1	105	2.0	2.0	100	5	2/16/99	5565	5701
Manganese		mg/L	<0.10	2.0	2.0	100	2.0	2.0	100	0	2/16/99	5565	5701
Zinc		mg/L	<0.10	2.0	2.1	105	2.0	2.1	105	0	2/16/99	5565	5701
Aluminum		mg/L	<0.10	2.0	2.1	105	2.0	2.0	100	5	2/16/99	5565	5701
Boron		mg/L	0.35	2.0	2.5	108	2.0	2.5	108	0	2/16/99	5565	5701
Cobalt		mg/L	<0.05	2.0	2.1	105	2.0	2.0	100	5	2/16/99	5565	5701
Molybdenum		mg/L	<0.10	0.20	0.21	105	0.20	0.20	100	5	2/16/99	5565	5701
Nickel		mg/L	<0.10	2.0	2.1	105	2.0	2.0	100	5	2/16/99	5565	5701
Cyanide		mg/L	<0.01	0.120	0.103	86	0.120	0.101	84	2	2/18/99	5567	5703
Fluoride		mg/L	8.09	25	33.03	100	25	32.85	99	1	2/12/99	5568	5704
Nitrate		mg/L	9.88	50	56.01	92	50	56.36	93	1	2/12/99	5568	5704
Chloride		mg/L	359.12	125	463.63	84	125	464.58	84	0	2/12/99	5568	5704
Sulfate		mg/L	301.69	125	418.97	94	125	416.62	92	1	2/12/99	5568	5704
TRPHC	*	mg/L	<0.500	8.5	7.63	90	8.5	7.63	90	0	2/15/99	5491	5607
Total Phenol		mg/L	<0.07	0.80	0.821	103	0.80	0.827	103	1	2/17/99	5559	5697

*LCS's used for spike and spike duplicate.

Quality Control Report
Duplicate

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/3/99
Page #13

Order ID Number: 990200234
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Dupliciate Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	7.3	7.3	0	2/12/99	5556	5691
TDS		mg/kg	6,600	6,700	2	2/15/99	5564	5700

AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-99-0139	**P.O. Number:**	
Client I.D.:	118892	**ARS Sample I.D.:**	ARS-99-0422
Date Sampled:	2/11/99	**Date Received:**	2/17/99
Time Sampled:	N/A	**Time Received**	1540
Type of Sample:	Liquid	**Date of Report**	3/2/99

Analysis Description	Analysis Result	Analysis Error $\pm 2\sigma$	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	4.40	0.98	1.83	pCi/L	EPA 903	2/22/99 1857	KK
Ra-228	2.17	0.96	1.71	pCi/L	EPA 904	2/22/99 1404	KK

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

118892-93

Page ___ of ___

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 234

Company Name: BBC International, Inc. Phone #: (505) 397-6388

Address: (Street, City, Zip) 1324 W. Marland, Hobbs, NM 88240 Fax #: (505) 397-0397

Contact Person: Cliff P. Brunson

Invoice to: (If different from above) Shell E & P Technology Co. ATTN: Wayne Hamilton

Project #: Project Name: Shell Westgate

Project Location: Hobbs, New Mexico Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
118892	TMW 4	3	VOA	✓				✓					2/11	10:20
	TMW 4	1	500ml	✓					✓				2/11	10:20
	TMW 4	10	1 ltr	✓				✓	✓	✓			2/11	10:20
93	Trip Blanks	2	VOAs	✓										

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	See Attached (Full Suite)	Total Chlorides (300-1)	Total Metals (6010)		Turn Around Time if different from standard	Hold
		✓								✓					✓	✓	✓			

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Shawn E. Hall	2/11/99	4:45			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
	2/12/99	3:00P		2-12 99	3:00P

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

LAB USE ONLY

Intact Y / N

Headspace Y / N

Temp 4 °

Log-in Review

REMARKS:

Pesticides had to be rerun

Agreed Upon Turnaround

Draft for TMW 4 8010 + Semi Vol sent to Hamilton + Brunson 2/15/99

Carrier #

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/05/99
Page: # 1

Project Name: Shell Westgate
Project Location: Hobbs, NM
Order ID Number: 9902000193/194

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
118888	TMW 3	Water	02/11/99	10:00 a.m.	02/11/99
118889	GMW 9	Water	02/11/99	11:20 a.m.	02/11/99

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

This report shall not be reproduced except in its entirety, without written approval of the laboratory.

These results represent only the samples received in the laboratory.

This report consists of a total of 14 pages.

*Semi-volatile method blank surrogate out of control limits.

Dr. Blair Leftwich
Director

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/5/99
Page # 2

Order ID Number: 9902000193/194
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TMW 3 Sample Number: 118888

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	5
Acrylonitrile		<5	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	5
Benzene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
Carbon tetrachloride		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
Chlorobenzene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
1,2-dichloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
1,1,1-trichloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
1,1,2-trichloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
Chloroform		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
Dichlorobenzene		<2	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	2
1,1-dichloroethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
Dichloropropenes		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
Ethylbenzene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
Bromodichloromethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
Bromomethane		<5	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	5
Chloromethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
Dichlorodifluoromethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
Dichloromethane		<5	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	5
Trichlorofluoromethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
Tetrachloroethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
Toluene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
Trichloroethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
Vinyl chloride		<2	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	2
m,p-xylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
o-xylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
1,1-dichloroethane		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
Ethylene dibromide		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	1
Methylene chloride		<5	ug/L	S-8260B	02/13/99	02/13/99	JG		5665	5
Surr. Dibromofluoromethane		111	%	S-8260B	02/13/99	02/13/99	JG		5665	72-130
Surr. Toluene-d8		104	%	S-8260B	02/13/99	02/13/99	JG		5665	77-127
Surr. 4-Bromofluorobenzene		107	%	S-8260B	02/13/99	02/13/99	JG		5665	72-131

Date: 3/5/99

Order ID Number: 9902000193/194 Page # 3

Project Name: Shell Westgate

Field Code: TMW 3 Sample Number: 118888

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
2,6-dichlorphenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.005
2,4,5-Trichlorophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.005
2,4,6-Trichlorophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.005
2,4-Dinitro-o-cresol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.005
2,4-dinitrophenols		<0.025	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.025
Pentachlorophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.005
Anthracene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.001
3,4-Benzofluoranthene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.001
Benzo(k)fluoranthene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.001
Fluoranthene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.001
Fluorene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.001
Phenanthrene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.001
Pyrene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.001
Naphthalene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.001
Benzo-a-pyrene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.001
Phenol		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.001
2-Chlorophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.005
2-Methyphenol		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.001
3-Methyphenol		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.001
4-Methyphenol		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.001
2-Nitrophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.005
2,4-Dimethylphenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.005
2,4-dichlorphenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.005
4-Chloro-3-methylphenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.005
Acenaphthylene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.001
Acenaphthene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.001
4-Nitrophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.005
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.005
Benz(a)anathracene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.001
Chrysene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.001
Indeno-{1,2,3-cd}pyrene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.001
Dibenz{a,h}anathraene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.001
Benzo{g,h,i}perylene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5539	5664	0.001
Surr. 2-Fluorophenol		55	%	8270C	02/13/99	02/13/99	DG	5539	5664	21-110
Surr. Phenol-d6		26	%	8270C	02/13/99	02/13/99	DG	5539	5664	10-94
Surr. Nitrobenzene-d5		78	%	8270C	02/13/99	02/13/99	DG	5539	5664	35-114
Surr. 2-Fluorobiphenyl		85	%	8270C	02/13/99	02/13/99	DG	5539	5664	43-116
Surr. 2,4,6-Tribromophenol		87	%	8270C	02/13/99	02/13/99	DG	5539	5664	10-123
Surr. Terphenyl-d14		123	%	8270C	02/13/99	02/13/99	DG	5539	5664	33-141

Order ID Number: 9902000193/194
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/5/99
Page # 4

Field Code: TMW 3

Sample Number: 118888

Parameter	Flag	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Arsenic	<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.10
Barium	<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.10
Cadmium	<0.01	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.01
Chromium	<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.05
Lead	<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.05
Total Mercury	0.00042	mg/L	7471A	2/16/99	2/18/99	BP	5541	5667	0.0002
Selenium	<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.05
Silver	<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.05
Uranium	<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.10
Copper	<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.10
Iron	<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.10
Manganese	<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.10
Zinc	<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.10
Aluminum	<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.10
Boron	0.35	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.10
Cobalt	<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.05
Molybdenum	<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.10
Nickel	<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.10

Analytical Results Report

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1324 W. Marland
Hobbs, NM 88240

Date: 3/5/99
Page #5

Order ID Number: 9902000193/194
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 9 Sample Number: 118889

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	5
Acrylonitrile		<5	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	5
Benzene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
Carbon tetrachloride		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
Chlorobenzene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
1,2-dichloroethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
1,1,1-trichloroethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
1,1,2-trichloroethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
Chloroform		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
Dichlorobenzene		<2	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	2
1,1-dichloroethylene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
Dichloropropenes		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
Ethylbenzene		12	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
Bromodichloromethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
Bromomethane		<5	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	5
Chloromethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
Dichlorodifluoromethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
Dichloromethane		<5	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	5
Trichlorofluoromethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
Tetrachloroethylene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
Toluene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
Trichloroethylene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
Vinyl chloride		<2	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	2
m,p-xylene		29	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
o-xylene		11	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
1,1-dichloroethane		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
Ethylene dibromide		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	1
Methylene chloride		<5	ug/L	S-8260B	2/13/99	2/13/99	JG		5665	5
Surr. Dibromofluoromethane		112	%	S-8260B	2/13/99	2/13/99	JG		5665	72-130
Surr. Toluene-d8		105	%	S-8260B	2/13/99	2/13/99	JG		5665	77-127
Surr. 4-Bromofluorobenzene		111	%	S-8260B	2/13/99	2/13/99	JG		5665	72-131

Date: 3/5/99

Order ID Number: 9902000193/194 Page #6

Project Name: Shell Westgate

Field Code: GMW 9 Sample Number: 118889

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
2,6-dichlorphenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.005
2,4,5-Trichlorophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.005
2,4,6-Trichlorophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.005
2,4-Dinitro-o-cresol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.005
2,4-dinitrophenols		<0.025	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.025
Pentachlorophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.005
Anthracene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.001
3,4-Benzofluoranthene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.001
Benzo(k)fluoranthene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.001
Fluoranthene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.001
Fluorene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.001
Phenanthrene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.001
Pyrene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.001
Naphthalene		0.002	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.001
Benzo-a-pyrene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.001
Phenol		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.001
2-Chlorophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.005
2-Methyphenol		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.001
3-Methyphenol		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.001
4-Methyphenol		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.001
2-Nitrophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.005
2,4-Dimethylphenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.005
2,4-dichlorphenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.005
4-Chloro-3-methylphenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.005
Acenaphthylene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.001
Acenaphthene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.001
4-Nitrophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.005
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.005
Benz(a)anathracene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.001
Chrysene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.001
Indeno-{1,2,3-cd}pyrene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.001
Dibenz{a,h}anathraene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.001
Benzo{g,h,i}perylene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5539	5664	0.001
Surr. 2-Fluorophenol		33	%	8270C	2/13/99	2/13/99	DG	5539	5664	21-100
Surr. Phenol-d6		16	%	8270C	2/13/99	2/13/99	DG	5539	5664	10-94
Surr. Nitrobenzene-d5		68	%	8270C	2/13/99	2/13/99	DG	5539	5664	33-114
Surr. 2-Fluorobiphenyl		74	%	8270C	2/13/99	2/13/99	DG	5539	5664	43-116
Surr. 2,4,6-Tribromophenol		77	%	8270C	2/13/99	2/13/99	DG	5539	5664	10-123
Surr. Terphenyl-d14		113	%	8270C	2/13/99	2/13/99	DG	5539	5664	33-141

Date: 3/5/99

Order ID Number: 9902000193/194
Page #7
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 9
Sample Number: 118889

Parameter	Flag		Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Arsenic		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.10
Barium		0.24	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.10
Cadmium		<0.01	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.01
Chromium		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.05
Lead		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.05
Total Mercury		<0.0002	mg/L	7471A	2/16/99	2/18/99	BP	5541	5667	0.0002
Selenium		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.05
Silver		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.05
Uranium		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.10
Copper		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.10
Iron		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.10
Manganese		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.10
Zinc		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.10
Aluminum		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.10
Boron		0.25	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.10
Cobalt		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.05
Molybdenum		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.10
Nickel		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5540	5666	0.10

Quality Control Report
Blanks

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Hobbs, NM 88240

Date: 3/5/99
Page #8

Order ID Number: 9902000193/194
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Result	Units	Limit	Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	2/13/99		5665
Acrylonitrile		<5	ug/L	5	2/13/99		5665
Benzene		<1	ug/L	1	2/13/99		5665
Carbon tetrachloride		<1	ug/L	1	2/13/99		5665
Chlorobenzene		<1	ug/L	1	2/13/99		5665
1,2-dichloroethane		<1	ug/L	1	2/13/99		5665
1,1,2,2-tetrachloroethane		<1	ug/L	1	2/13/99		5665
1,1,1-trichloroethane		<1	ug/L	1	2/13/99		5665
1,1,2-trichloroethane		<1	ug/L	1	2/13/99		5665
1,1,2-trichloroethylene		<1	ug/L	1	2/13/99		5665
Chloroform		<1	ug/L	1	2/13/99		5665
ichlorobenzene		<2	ug/L	2	2/13/99		5665
,1-dichloroethylene		<1	ug/L	1	2/13/99		5665
Dichloropropenes		<1	ug/L	1	2/13/99		5665
Ethylbenzene		<1	ug/L	1	2/13/99		5665
Bromodichloromethane		<1	ug/L	1	2/13/99		5665
Bromomethane		<5	ug/L	5	2/13/99		5665
Chloromethane		<1	ug/L	1	2/13/99		5665
Dichlorodifluoromethane		<1	ug/L	1	2/13/99		5665
Dichloromethane		<5	ug/L	5	2/13/99		5665
Trichlorofluoromethane		<1	ug/L	1	2/13/99		5665
Tetrachloroethylene		<1	ug/L	1	2/13/99		5665
Toluene		<1	ug/L	1	2/13/99		5665
Trichloroethylene		<1	ug/L	1	2/13/99		5665
Vinyl chloride		<2	ug/L	2	2/13/99		5665
m,p-xylene		<1	ug/L	1	2/13/99		5665
o-xylene		<1	ug/L	1	2/13/99		5665
1,1-dichloroethane		<1	ug/L	1	2/13/99		5665
Ethylene dibromide		<1	ug/L	1	2/13/99		5665
cis-1,2-dichlorethylene		<1	ug/L	1	2/13/99		5665
trans-1,2-dichloroethylene		<1	ug/L	1	2/13/99		5665
Methylene chloride		<5	ug/L	5	2/13/99		5665
Surr. Dibromofluoromethane		109	%	72-130	2/13/99		5665
Surr. Toluene-d8		104	%	77-127	2/13/99		5665
Surr. 4-Bromofluorobenzene		107	%	72-131	2/13/99		5665

Quality Control Report
Blanks

Order ID Number: 9902000193/194
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/5/99
Page #9

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
2,6-dichlorphenol		<0.005	mg/L	0.005	02/13/99	5539	5664
2,4,5-Trichlorophenol		<0.005	mg/L	0.005	02/13/99	5539	5664
2,4,6-Trichlorophenol		<0.005	mg/L	0.005	02/13/99	5539	5664
2,4-Dinitro-o-cresol		<0.005	mg/L	0.005	02/13/99	5539	5664
2,4-dinitrophenols		<0.025	mg/L	0.025	02/13/99	5539	5664
Pentachlorophenol		<0.005	mg/L	0.005	02/13/99	5539	5664
Anthracene		<0.001	mg/L	0.001	02/13/99	5539	5664
3,4-Benzofluoranthene		<0.001	mg/L	0.001	02/13/99	5539	5664
Benzo(k)fluoranthene		<0.001	mg/L	0.001	02/13/99	5539	5664
Fluoranthene		<0.001	mg/L	0.001	02/13/99	5539	5664
Fluorene		<0.001	mg/L	0.001	02/13/99	5539	5664
Phenanthrene		<0.001	mg/L	0.001	02/13/99	5539	5664
Pyrene		<0.001	mg/L	0.001	02/13/99	5539	5664
Naphthalene		<0.001	mg/L	0.001	02/13/99	5539	5664
Benzo-a-pyrene		<0.001	mg/L	0.001	02/13/99	5539	5664
Phenol		<0.001	mg/L	0.001	02/13/99	5539	5664
[illegible]Chlorophenol		<0.005	mg/L	0.005	02/13/99	5539	5664
[illegible]Methyphenol		<0.001	mg/L	0.001	02/13/99	5539	5664
3-Methyphenol		<0.001	mg/L	0.001	02/13/99	5539	5664
4-Methyphenol		<0.001	mg/L	0.001	02/13/99	5539	5664
2-Nitrophenol		<0.005	mg/L	0.005	02/13/99	5539	5664
2,4-Dimethylphenol		<0.005	mg/L	0.005	02/13/99	5539	5664
2,4-dichlorphenol		<0.005	mg/L	0.005	02/13/99	5539	5664
4-Chloro-3-methylphenol		<0.005	mg/L	0.005	02/13/99	5539	5664
Acenaphthylene		<0.001	mg/L	0.001	02/13/99	5539	5664
Acenaphthene		<0.001	mg/L	0.001	02/13/99	5539	5664
4-Nitrophenol		<0.005	mg/L	0.005	02/13/99	5539	5664
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	0.005	02/13/99	5539	5664
Benz(a)anathracene		<0.001	mg/L	0.001	02/13/99	5539	5664
Chrysene		<0.001	mg/L	0.001	02/13/99	5539	5664
Indeno-{1,2,3-cd}pyrene		<0.001	mg/L	0.001	02/13/99	5539	5664
Dibenz{a,h}anathraene		<0.001	mg/L	0.001	02/13/99	5539	5664
Benzo{g,h,i}perylene		<0.001	mg/L	0.001	02/13/99	5539	5664
Surr. 2-Fluorophenol		42	%	21-100	02/13/99	5539	5664
Surr. Phenol-d6		18	%	10-94	02/13/99	5539	5664
Surr. Nitrobenzene-d5		77	%	33-114	02/13/99	5539	5664
Surr. 2-Fluorobiphenyl		84	%	43-116	02/13/99	5539	5664
Surr. 2,4,6-Tribromophenol		66	%	10-123	02/13/99	5539	5664
Surr. Terphenyl-d14	*	150	%	33-141	02/13/99	5539	5664

*Surrogate out of control limits.

Quality Control Report
Blanks

Order ID Number: 9902000193/194 Date: 3/5/99
Project Name: Shell Westgate Page #10
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Arsenic		<0.10	mg/L	0.10	02/16/99	5540	5666
Barium		<0.10	mg/L	0.10	02/16/99	5540	5666
Cadmium		<0.10	mg/L	0.1	02/16/99	5540	5666
Chromium		<0.05	mg/L	0.05	02/16/99	5540	5666
Lead		<0.05	mg/L	0.05	02/16/99	5540	5666
Total Mercury		<0.0002	mg/L	0.0002	02/18/99	5541	5667
Selenium		<0.05	mg/L	0.05	02/16/99	5540	5666
Silver		<0.05	mg/L	0.05	02/16/99	5540	5666
Uranium		<0.10	mg/L	0.10	02/16/99	5540	5666
Copper		<0.10	mg/L	0.10	02/16/99	5540	5666
Iron		<0.10	mg/L	0.10	02/16/99	5540	5666
Manganese		<0.10	mg/L	0.10	02/16/99	5540	5666
Zinc		<0.10	mg/L	0.10	02/16/99	5540	5666
Aluminum		<0.10	mg/L	0.10	02/16/99	5540	5666
Boron		<0.10	mg/L	0.10	02/16/99	5540	5666
[illegible]obalt		<0.05	mg/L	0.05	02/16/99	5540	5666
[illegible]olybdenum		<0.10	mg/L	0.10	02/16/99	5540	5666
Nickel		<0.10	mg/L	0.10	02/16/99	5540	5666

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/05/99
Page #11

Order ID Number: 9902000193/194
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	98	98	02/13/99	5665
1,1-Dichloroethene		100	ug/L	117	117	02/13/99	5665
Chloroform		100	ug/L	120	120	02/13/99	5665
1,2-Dichloropropane		100	ug/L	103	103	02/13/99	5665
Toluene		100	ug/L	107	107	02/13/99	5665
Chlorobenzene		100	ug/L	100	100	02/13/99	5665
Ethylbenzene		100	ug/L	108	108	02/13/99	5665
Surr. Dibromofluoromethane		100	ug/L	108	108	02/13/99	5665
Surr. Toluene-d8		100	ug/L	103	103	02/13/99	5665
Surr. 4-Bromofluorobenzene		100	ug/L	111	111	02/13/99	5665
henol		80	mg/L	76	95	02/13/99	5664
1,4-Dichlorobenzene		80	mg/L	77	96	02/13/99	5664
2-nitrophenol		80	mg/L	71	89	02/13/99	5664
2,4-Dichlorophenol		80	mg/L	72	90	02/13/99	5664
Hexachlorobutadiene		80	mg/L	74	93	02/13/99	5664
4-Chloro-3-methylphenol		80	mg/L	69	86	02/13/99	5664
2,4,6-Trichlorophenol		80	mg/L	77	96	02/13/99	5664
Acenaphthene		80	mg/L	75	94	02/13/99	5664
n-Nitrosodiphenylamine		80	mg/L	67	84	02/13/99	5664
Pentachlorophenol		80	mg/L	80	100	02/13/99	5664
Fluoranthene		80	mg/L	71	89	02/13/99	5664
Di-n-octylphthalate		80	mg/L	90	113	02/13/99	5664
Benzo(a)pyrene		80	mg/L	76	95	02/13/99	5664
Surr. 2-Fluorophenol		80	mg/L	74	93	02/13/99	5664
Surr. Phenol-d6		80	mg/L	74	93	02/13/99	5664
Surr. Nitroobenzene-d5		80	mg/L	73	91	02/13/99	5664
Surr. 2-Fluorobiphenyl		80	mg/L	72	90	02/13/99	5664
Surr. 2,4,6-Tribromophenol		80	mg/L	76	95	02/13/99	5664
Surr. Terphenyl-d14		80	mg/L	78	98	02/13/99	5664

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/05/99
Page #12

Order ID Number: 9902000193/194
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Arsenic		1.0	mg/L	1.0	100	02/16/99	5666
Barium		1.0	mg/L	0.96	96	02/16/99	5666
Cadmium		1.0	mg/L	0.99	99	02/16/99	5666
Chromium		1.0	mg/L	0.95	95	02/16/99	5666
Lead		1.0	mg/L	0.98	98	02/16/99	5666
Total Mercury		0.0010	mg/L	0.00096	96	02/18/99	5667
Selenium		1.0	mg/L	1.0	100	02/16/99	5666
Silver		0.20	mg/L	0.19	95	02/16/99	5666
Uranium		1.0	mg/L	1.0	100	02/16/99	5666
Copper		1.0	mg/L	0.97	97	02/16/99	5666
[illegible]n		1.0	mg/L	0.95	95	02/16/99	5666
[illegible]anganese		1.0	mg/L	0.95	95	02/16/99	5666
Zinc		1.0	mg/L	0.98	98	02/16/99	5666
Aluminum		1.0	mg/L	1.0	100	02/16/99	5666
Boron		1.0	mg/L	0.96	96	02/16/99	5666
Cobalt		1.0	mg/L	0.95	95	02/16/99	5666
Molybdenum		1.0	mg/L	0.97	97	02/16/99	5666
Nickel		1.0	mg/L	0.97	97	02/16/99	5666

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/5/99

Order ID Number: 9902000193/194
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	113	113	100	121	121	7	2/13/99		5665
Benzene		ug/L	<1	100	112	112	100	116	116	4	2/13/99		5665
Trichloroethene		ug/L	<1	100	98	98	100	102	102	4	2/13/99		5665
Toluene		ug/L	<1	100	109	109	100	112	112	3	2/13/99		5665
Chlorobenzene		ug/L	<1	100	105	105	100	111	111	6	2/13/99		5665
Surr. Dibromofluoromethane		%	111	100	110	110	100	111	111	1	2/13/99		5665
Surr. Toluene-d8		%	104	100	104	104	100	105	105	1	2/13/99		5665
Surr. 4-Bromofluorobenzene		%	107	100	107	107	100	107	107	0	2/13/99		5665
Phenol	*	mg/L	<0.001	100	31	31	100	30	30	3	2/13/99	5539	5664
2-Chlorophenol	*	mg/L	<0.005	100	73	73	100	78	78	7	2/13/99	5539	5664
1,4-Dichlorobenzene	*	mg/L	<0.001	100	70	70	100	74	74	6	2/13/99	5539	5664
n-Nitrosodi-n-propylamine	*	mg/L	<0.001	100	71	71	100	76	76	7	2/13/99	5539	5664
1,2,4-trichlorobenzene	*	mg/L	<0.001	100	63	63	100	64	64	2	2/13/99	5539	5664
4-Chloro-3-methylphenol	*	mg/L	<0.005	100	69	69	100	72	72	4	2/13/99	5539	5664
Acenaphthene	*	mg/L	<0.001	100	72	72	100	76	76	5	2/13/99	5539	5664
4-Nitrophenol	*	mg/L	<0.005	100	24	24	100	23	23	4	2/13/99	5539	5664
2,4-Dinitrotoluene	*	mg/L	<0.001	100	80	80	100	80	80	0	2/13/99	5539	5664
Pentachlorophenol	*	mg/L	<0.005	100	75	75	100	75	75	0	2/13/99	5539	5664
Pyrene	*	mg/L	<0.001	100	80	80	100	81	81	1	2/13/99	5539	5664
Surr. 2-Fluorophenol	*	%	42	100	41	41	100	38	38	8	2/13/99	5539	5664
Surr. Phenol-d6	*	%	18	100	28	28	100	28	28	0	2/13/99	5539	5664
Surr. Nitrobenzene-d5	*	%	77	100	72	72	100	75	75	4	2/13/99	5539	5664
Surr. 2-Fluorobiphenyl	*	%	84	100	73	73	100	78	78	7	2/13/99	5539	5664
Surr. 2,4,6-Tribromophenol	*	%	66	100	89	89	100	94	94	5	2/13/99	5539	5664
Surr. Terphenyl-d14	*	%	150	100	95	95	100	95	95	0	2/13/99	5539	5664

*LCS's used for spike and spike duplicate.

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/5/99
Page #14

Order ID Number: 9902000193/194
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Arsenic		mg/L	<0.10	2.0	2.3	115	2.0	2.3	115	0	2/16/99	5540	5666
Barium		mg/L	<0.10	2.0	2.1	105	2.0	2.1	105	3	2/16/99	5540	5666
Cadmium		mg/L	<0.01	2.0	2.1	105	2.0	2.1	105	0	2/16/99	5540	5666
Chromium		mg/L	<0.05	2.0	2.0	100	2.0	2	100	0	2/16/99	5540	5666
Lead		mg/L	<0.05	2.0	2.2	85	2.0	2.1	105	5	2/16/99	5540	5666
Total Mercury		mg/L	< 0.0002	0.0010	0.00090	90	0.0010	0.00080	80	12	2/18/99	5541	5667
Selenium		mg/L	<0.05	2.0	2.2	110	2.0	2.1	105	5	2/16/99	5540	5666
Silver		mg/L	<0.10	0.25	0.25	100	0.25	0.24	96	4	2/16/99	5540	5666
Uranium		mg/L	<0.10	2.0	2.0	100	2.0	2.1	105	5	2/16/99	5540	5666
[illegible]pper		mg/L	<0.10	2.0	2.1	105	2.0	2.1	105	0	2/16/99	5540	5666
[illegible]n		mg/L	<0.10	2.0	2.1	105	2.0	2.0	100	5	2/16/99	5540	5666
Manganese		mg/L	<0.10	2.0	2.0	100	2.0	2.0	100	0	2/16/99	5540	5666
Zinc		mg/L	<0.10	2.0	2.1	105	2.0	2.1	105	0	2/16/99	5540	5666
Aluminum		mg/L	<0.10	2.0	2.1	105	2.0	2.0	100	5	2/16/99	5540	5666
Boron		mg/L	0.35	2.0	2.5	108	2.0	2.5	108	0	2/16/99	5540	5666
Cobalt		mg/L	<0.05	2.0	2.1	105	2.0	2.0	100	5	2/16/99	5540	5666
Molybdenum		mg/L	<0.10	0.20	0.21	105	0.20	0.2	100	5	2/16/99	5540	5666
Nickel		mg/L	<0.10	2.0	2.1	105	2.0	2.0	100	5	2/16/99	5540	5666

118888-

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 232

Company Name: BBC International, Inc. Phone #: (505) 397-6388

Address: (Street, City, Zip) 1324 W. Marland, Hobbs, NM 88240 Fax #: (505) 397-0397

Contact Person: Cliff P. Brunson

Invoice to: (If different from above) Shell E & P Technology Co. ATTN: Wayne Hamilton

Project #: Project Name: Shell Westgate

Project Location: Hobbs, New Mexico Sampler Signature: Shawn E. Hall

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
118888	Tmw3	4	voas	✓				✓		✓			2/11/99	10:00
	Tmw3	2	Htr	✓						✓			2/11/99	10:00
	Tmw3	1	500 ml						✓	✓			2/11/99	10:00
118889	Gmw9	4	voas	✓				✓		✓			2/11/99	11:20
	Gmw9	2	Htr	✓						✓			2/11/99	11:20
	Gmw9	1	500 ml	✓					✓	✓			2/11/99	11:20

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624 BTEX	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	See Attached (Full Suite)	Total Chlorides (300-1)	Total Metals (6010)	Turn Around Time if different from standard	Hold
										✓	✓						✓		
											✓								
										✓									
											✓								

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Shawn E. Hall	2/11/99	5:00			
	2/12/99	3:00		2-12-99	2:00

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 0 °C
Log-in Review

REMARKS: Agreed Upon Turnaround

Carrier #

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/10/99
Page: # 1

Project Name: Shell Westgate
Project Location: Hobbs, NM
Order ID Number: 9902000246

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
118936	TMW 1	Water	02/12/99	10:00 a.m.	02/13/99
118937	TMW 2	Water	02/12/99	9:20 a.m.	02/13/99
118938	GMW 7	Water	02/12/99	11:05 a.m.	02/13/99
118939	GMW 8	Water	02/12/99	10:20 a.m.	02/13/99
118940	GMW 4	Water	02/12/99	11:50 a.m.	02/13/99
118941	GMW 10	Water	02/12/99	1:25 p.m.	02/13/99
118942	Trip Blank	Water	02/12/99		02/13/99
118943	Field Blank	Water	02/12/99		02/13/99

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

This report shall not be reproduced except in its entirety, without written approval of the laboratory.

These results represent only the samples received in the laboratory.

This report consists of a total of 21 pages.

*Semi-volatile 118938 surrogate out of control limits.

*Semi-volatile method blank surrogate out of control limits.

Dr. Blair Leftwich
Director

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/10/99

Order ID Number: 9902000246
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TMW 1 Sample Number: 118936

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzene		<1	ug/L	S-8260B	02/15/99	02/15/99	JG		5746	1
Ethylbenzene		<1	ug/L	S-8260B	02/15/99	02/15/99	JG		5746	1
Toluene		<1	ug/L	S-8260B	02/15/99	02/15/99	JG		5746	1
m,p-xylene		<1	ug/L	S-8260B	02/15/99	02/15/99	JG		5746	1
o-xylene		<1	ug/L	S-8260B	02/15/99	02/15/99	JG		5746	1
Surr. Dibromofluoromethane		104	%	S-8260B	02/15/99	02/15/99	JG		5746	72-130
Surr. Toluene-d8		99	%	S-8260B	02/15/99	02/15/99	JG		5746	77-127
Surr. 4-Bromofluorobenzene		101	%	S-8260B	02/15/99	02/15/99	JG		5746	72-131
2,6-dichlorphenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
2,4,5-Trichlorophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
2,4,6-Trichlorophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
2,4-Dinitro-o-cresol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
2,4-dinitrophenols		<0.025	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.025
Pentachlorophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
Anthracene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
3,4-Benzofluoranthene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Benzo(k)fluoranthene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Fluoranthene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Fluorene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Phenanthrene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Pyrene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Naphthalene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Benzo-a-pyrene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Phenol		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
2-Chlorophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
2-Methyphenol		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
3-Methyphenol		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
4-Methyphenol		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
2-Nitrophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
2,4-Dimethylphenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
2,4-dichlorphenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
4-Chloro-3-methylphenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
Acenaphthylene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Acenaphthene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
4-Nitrophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
Benz(a)anathracene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001

Order ID Number: 9902000246
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/10/99
Page # 3

Field Code: TMW 1

Sample Number: 118936

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Chrysene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Indeno-{1,2,3-cd}pyrene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Dibenz{a,h}anathraene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Benzo{g,h,i}perylene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Surr. 2-Fluorophenol		35	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	21-110
Surr. Phenol-d6		15	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	10-94
Surr. Nitrobenzene-d5		61	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	35-114
Surr. 2-Fluorobiphenyl		69	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	43-116
Surr. 2,4,6-Tribromophenol		74	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	10-123
Surr. Terphenyl-d14		124	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	33-141
Arsenic		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5606	5750	0.10
Barium		0.11	mg/L	6010B	2/15/99	2/16/99	RR	5606	5750	0.10
Cadmium		<0.01	mg/L	6010B	2/15/99	2/16/99	RR	5606	5750	0.01
Chromium		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5606	5750	0.05
Lead		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5606	5750	0.05
Total Mercury		<0.0002	mg/L	7470A	2/16/99	2/18/99	BP	5607	5749	0.0002
Selenium		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5606	5750	0.05
Silver		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5606	5750	0.05
Uranium		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5606	5750	0.10
Copper		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5606	5750	0.10
Iron		0.11	mg/L	6010B	2/15/99	2/16/99	RR	5606	5750	0.10
Manganese		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5606	5750	0.10
Zinc		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5606	5750	0.10
Aluminum		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5606	5750	0.10
Boron		0.62	mg/L	6010B	2/15/99	2/16/99	RR	5606	5750	0.10
Cobalt		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5606	5750	0.05
Molybdenum		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5606	5750	0.10
Nickel		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5606	5750	0.10

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/10/99
Page #4

Order ID Number: 9902000246
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TMW 2 Sample Number: 118937

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzene		<1	ug/L	S-8260B	2/15/99	2/15/99	JG		5746	1
Ethylbenzene		<1	ug/L	S-8260B	2/15/99	2/15/99	JG		5746	1
Toluene		<1	ug/L	S-8260B	2/15/99	2/15/99	JG		5746	1
m,p-xylene		<1	ug/L	S-8260B	2/15/99	2/15/99	JG		5746	1
o-xylene		<1	ug/L	S-8260B	2/15/99	2/15/99	JG		5746	1
Surr. Dibromofluoromethane		101	%	S-8260B	2/15/99	2/15/99	JG		5746	72-130
Surr. Toluene-d8		99	%	S-8260B	2/15/99	2/15/99	JG		5746	77-127
Surr. 4-Bromofluorobenzene		99	%	S-8260B	2/15/99	2/15/99	JG		5746	72-131
2,6-dichlorphenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
2,4,5-Trichlorophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
2,4,6-Trichlorophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
2,4-Dinitro-o-cresol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
2,4-dinitrophenols		<0.025	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.025
Pentachlorophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
Anthracene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
3,4-Benzofluoranthene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Benzo(k)fluoranthene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Fluoranthene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Fluorene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Phenanthrene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Pyrene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Naphthalene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Benzo-a-pyrene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Phenol		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
2-Chlorophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
2-Methyphenol		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
3-Methyphenol		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
4-Methyphenol		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
2-Nitrophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
2,4-Dimethylphenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
2,4-dichlorphenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
4-Chloro-3-methylphenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
Acenaphthylene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Acenaphthene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
4-Nitrophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
Benz(a)anathracene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001

Order ID Number: 9902000246
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/10/99
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Field Code: TMW 2

Sample Number: 118937

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Chrysene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Indeno-{1,2,3-cd}pyrene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Dibenz{a,h}anathraene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Benzo{g,h,i}perylene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Surr. 2-Fluorophenol		36	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	21-110
Surr. Phenol-d6		15	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	10-94
Surr. Nitrobenzene-d5		67	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	35-114
Surr. 2-Fluorobiphenyl		76	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	43-116
Surr. 2,4,6-Tribromophenol		52	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	10-123
Surr. Terphenyl-d14		126	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	33-141
Arsenic		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Barium		0.12	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Cadmium		<0.01	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.01
Chromium		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Lead		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Total Mercury		<0.0002	mg/L	7470A	2/16/99	2/18/99	BP	5607	5749	0.0002
Selenium		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Silver		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Uranium		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Copper		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Iron		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Manganese		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Zinc		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Aluminum		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Boron		0.62	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Cobalt		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Molybdenum		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Nickel		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10

Analytical Results Report

Cliff P. Brunson.
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1324 W. Marland
Hobbs, NM 88240

Date: 3/10/99
Page #6

Order ID Number: 9902000246
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 7 Sample Number: 118938

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzene		<1	ug/L	S-8260B	2/15/99	2/15/99	JG		5746	1
Ethylbenzene		<1	ug/L	S-8260B	2/15/99	2/15/99	JG		5746	1
Toluene		<1	ug/L	S-8260B	2/15/99	2/15/99	JG		5746	1
m,p-xylene		<1	ug/L	S-8260B	2/15/99	2/15/99	JG		5746	1
o-xylene		<1	ug/L	S-8260B	2/15/99	2/15/99	JG		5746	1
Surr. Dibromofluoromethane		100	%	S-8260B	2/15/99	2/15/99	JG		5746	72-130
Surr. Toluene-d8		99	%	S-8260B	2/15/99	2/15/99	JG		5746	77-127
Surr. 4-Bromofluorobenzene		97	%	S-8260B	2/15/99	2/15/99	JG		5746	72-131
2,6-dichlorphenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
2,4,5-Trichlorophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
2,4,6-Trichlorophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
2,4-Dinitro-o-cresol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
2,4-dinitrophenols		<0.025	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.025
Pentachlorophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
Anthracene		<0.001	mg/L	8270C	2/13/99	3/99	DG	5606	5748	0.001
3,4-Benzofluoranthene		<0.001	mg/L	8270C	2/13/99	3/99	DG	5606	5748	0.001
Benzo(k)fluoranthene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Fluoranthene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Fluorene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Phenanthrene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Pyrene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Naphthalene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Benzo-a-pyrene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Phenol		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
2-Chlorophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
2-Methyphenol		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
3-Methyphenol		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
4-Methyphenol		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
2-Nitrophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
2,4-Dimethylphenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
2,4-dichlorphenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
4-Chloro-3-methylphenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
Acenaphthylene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Acenaphthene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
4-Nitrophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
Benz(a)anathracene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001

Order ID Number: 9902000246
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/10/99
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Field Code: GMW 7

Sample Number: 118938

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Chrysene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Indeno-{1,2,3-cd}pyrene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Dibenz{a,h}anathraene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Benzo{g,h,i}perylene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Surr. 2-Fluorophenol		29	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	21-110
Surr. Phenol-d6	*	8	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	10-94
Surr. Nitrobenzene-d5		47	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	35-114
Surr. 2-Fluorobiphenyl		57	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	43-116
Surr. 2,4,6-Tribromophenol		57	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	10-123
Surr. Terphenyl-d14		110	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	33-141
Arsenic		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Barium		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Cadmium		<0.01	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.01
Chromium		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Lead		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Total Mercury		<0.0002	mg/L	7470A	2/16/99	2/18/99	BP	5607	5749	0.0002
Selenium		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Silver		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Uranium		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Copper		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Iron		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Manganese		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Zinc		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Aluminum		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Boron		0.24	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Cobalt		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Molybdenum		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Nickel		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10

*Surrogate out of control limits. (10-94)

Analytical Results Report

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1324 W. Marland
Hobbs, NM 88240

Date: 3/10/99
Page #8

Order ID Number: 9902000246
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 8 Sample Number: 118939

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzene		<1	ug/L	S-8260B	2/15/99	2/15/99	JG		5746	1
Ethylbenzene		<1	ug/L	S-8260B	2/15/99	2/15/99	JG		5746	1
Toluene		<1	ug/L	S-8260B	2/15/99	2/15/99	JG		5746	1
m,p-xylene		1.9	ug/L	S-8260B	2/15/99	2/15/99	JG		5746	1
o-xylene		<1	ug/L	S-8260B	2/15/99	2/15/99	JG		5746	1
Surr. Dibromofluoromethane		100	%	S-8260B	2/15/99	2/15/99	JG		5746	72-130
Surr. Toluene-d8		99	%	S-8260B	2/15/99	2/15/99	JG		5746	77-127
Surr. 4-Bromofluorobenzene		100	%	S-8260B	2/15/99	2/15/99	JG		5746	72-131
2,6-dichlorphenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
2,4,5-Trichlorophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
2,4,6-Trichlorophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
2,4-Dinitro-o-cresol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
2,4-dinitrophenols		<0.025	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.025
Pentachlorophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
Anthracene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
3,4-Benzofluoranthene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Benzo(k)fluoranthene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Fluoranthene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Fluorene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Phenanthrene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Pyrene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Naphthalene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Benzo-a-pyrene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Phenol		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
2-Chlorophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
2-Methyphenol		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
3-Methyphenol		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
4-Methyphenol		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
2-Nitrophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
2,4-Dimethylphenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
2,4-dichlorphenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
4-Chloro-3-methylphenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
Acenaphthylene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Acenaphthene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
4-Nitrophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.005
Benz(a)anathracene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001

Date: 3/10/99
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Order ID Number: 9902000246
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 8 Sample Number: 118939

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Chrysene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Indeno-{1,2,3-cd}pyrene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Dibenz{a,h}anathraene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Benzo{g,h,i}perylene		<0.001	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	0.001
Surr. 2-Fluorophenol		34	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	21-110
Surr. Phenol-d6		15	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	10-94
Surr. Nitrobenzene-d5		64	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	35-114
Surr. 2-Fluorobiphenyl		68	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	43-116
Surr. 2,4,6-Tribromophenol		69	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	10-123
Surr. Terphenyl-d14		105	mg/L	8270C	2/13/99	2/13/99	DG	5606	5748	33-141
Arsenic		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Barium		0.23	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Cadmium		<0.01	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.01
Chromium		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Lead		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Total Mercury		<0.0002	mg/L	7470A	2/16/99	2/18/99	BP	5607	5749	0.0002
Selenium		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Silver		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Uranium		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Copper		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Iron		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Manganese		0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Zinc		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Aluminum		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Boron		0.52	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Cobalt		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Molybdenum		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Nickel		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/10/99

Order ID Number: 9902000246
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 4 Sample Number: 118940

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzene		<1	ug/L	S-8260B	02/15/99	02/15/99	JG		5746	1
Ethylbenzene		<1	ug/L	S-8260B	02/15/99	02/15/99	JG		5746	1
Toluene		<1	ug/L	S-8260B	02/15/99	02/15/99	JG		5746	1
m,p-xylene		<1	ug/L	S-8260B	02/15/99	02/15/99	JG		5746	1
o-xylene		<1	ug/L	S-8260B	02/15/99	02/15/99	JG		5746	1
Surr. Dibromofluoromethane		97	%	S-8260B	02/15/99	02/15/99	JG		5746	72-130
Surr. Toluene-d8		99	%	S-8260B	02/15/99	02/15/99	JG		5746	77-127
Surr. 4-Bromofluorobenzene		95	%	S-8260B	02/15/99	02/15/99	JG		5746	72-131
2,6-dichlorphenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
2,4,5-Trichlorophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
2,4,6-Trichlorophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
2,4-Dinitro-o-cresol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
2,4-dinitrophenols		<0.025	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.025
Pentachlorophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
Anthracene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
3,4-Benzofluoranthene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Benzo(k)fluoranthene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Fluoranthene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Fluorene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Phenanthrene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Pyrene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Naphthalene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Benzo-a-pyrene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Phenol		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
2-Chlorophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
2-Methyphenol		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
3-Methyphenol		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
4-Methyphenol		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
2-Nitrophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
2,4-Dimethylphenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
2,4-dichlorphenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
4-Chloro-3-methylphenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
Acenaphthylene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Acenaphthene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
4-Nitrophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
Benz(a)anathracene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001

Order ID Number: 9902000246 Date: 3/10/99
Project Name: Shell Westgate Page #11
Project Location: Hobbs, NM

Field Code: GMW 4 Sample Number: 118940

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Chrysene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Indeno-{1,2,3-cd}pyrene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Dibenz{a,h}anathraene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Benzo{g,h,i}perylene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Surr. 2-Fluorophenol		28	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	21-110
Surr. Phenol-d6		11	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	10-94
Surr. Nitrobenzene-d5		62	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	35-114
Surr. 2-Fluorobiphenyl		69	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	43-116
Surr. 2,4,6-Tribromophenol		52	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	10-123
Surr. Terphenyl-d14		99	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	33-141
Arsenic		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Barium		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Cadmium		<0.01	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.01
Chromium		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Lead		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Total Mercury		<0.0002	mg/L	7470 A	2/16/99	2/18/99	BP	5607	5749	0.0002
Selenium		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Silver		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Uranium		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Copper		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Iron		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Manganese		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Zinc		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Aluminum		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Boron		0.21	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Cobalt		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Molybdenum		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Nickel		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/10/99
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Order ID Number: 9902000246
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 10 Sample Number: 118941

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzene		<1	ug/L	S-8260B	02/15/99	02/15/99	JG		5746	1
Ethylbenzene		<1	ug/L	S-8260B	02/15/99	02/15/99	JG		5746	1
Toluene		<1	ug/L	S-8260B	02/15/99	02/15/99	JG		5746	1
m,p-xylene		<1	ug/L	S-8260B	02/15/99	02/15/99	JG		5746	1
o-xylene		<1	ug/L	S-8260B	02/15/99	02/15/99	JG		5746	1
Surr. Dibromofluoromethane		103	%	S-8260B	02/15/99	02/15/99	JG		5746	72-130
Surr. Toluene-d8		98	%	S-8260B	02/15/99	02/15/99	JG		5746	77-127
Surr. 4-Bromofluorobenzene		101	%	S-8260B	02/15/99	02/15/99	JG		5746	72-131
2,6-dichlorphenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
2,4,5-Trichlorophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
2,4,6-Trichlorophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
2,4-Dinitro-o-cresol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
2,4-dinitrophenols		<0.025	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.025
Pentachlorophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
Anthracene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
3,4-Benzofluoranthene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Benzo(k)fluoranthene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Fluoranthene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Fluorene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Phenanthrene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Pyrene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Naphthalene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Benzo-a-pyrene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Phenol		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
2-Chlorophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
2-Methyphenol		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
3-Methyphenol		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
4-Methyphenol		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
2-Nitrophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
2,4-Dimethylphenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
2,4-dichlorphenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
4-Chloro-3-methylphenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
Acenaphthylene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Acenaphthene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
4-Nitrophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.005
Benz(a)anathracene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001

Order ID Number: 9902000246
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/10/99
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Field Code: GMW 10

Sample Number: 118941

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Chrysene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Indeno-{1,2,3-cd}pyrene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Dibenz{a,h}anathraene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Benzo{g,h,i}perylene		<0.001	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	0.001
Surr. 2-Fluorophenol		27	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	21-110
Surr. Phenol-d6		10	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	10-94
Surr. Nitrobenzene-d5		57	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	35-114
Surr. 2-Fluorobiphenyl		65	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	43-116
Surr. 2,4,6-Tribromophenol		56	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	10-123
Surr. Terphenyl-d14		101	mg/L	8270C	02/13/99	02/13/99	DG	5606	5748	33-141
Arsenic		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Barium		0.11	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Cadmium		<0.01	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.01
Chromium		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Lead		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Total Mercury		<0.0002	mg/L	7470A	2/16/99	2/18/99	BP	5607	5749	0.0002
Selenium		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Silver		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Uranium		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Copper		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Iron		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Manganese		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Zinc		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Aluminum		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Boron		0.27	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Cobalt		<0.05	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.05
Molybdenum		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10
Nickel		<0.10	mg/L	6010B	2/15/99	2/16/99	RR	5608	5750	0.10

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/10/99
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Order ID Number: 9902000246
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: Trip Blank

Sample Number: 118942

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzene		<1	ug/L	S-8260B	2/15/99	2/15/99	JG		5746	1
Ethylbenzene		<1	ug/L	S-8260B	2/15/99	2/15/99	JG		5746	1
Toluene		<1	ug/L	S-8260B	2/15/99	2/15/99	JG		5746	1
m,p-xylene		<1	ug/L	S-8260B	2/15/99	2/15/99	JG		5746	1
o-xylene		<1	ug/L	S-8260B	2/15/99	2/15/99	JG		5746	1
Surr. Dibromofluoromethane		104	ug/L	S-8260B	2/15/99	2/15/99	JG		5746	72-130
Surr. Toluene-d8		98	ug/L	S-8260B	2/15/99	2/15/99	JG		5746	77-127
Surr. 4-Bromofluorobenzene		100	ug/L	S-8260B	2/15/99	2/15/99	JG		5746	72-131

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

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Order ID Number: 9902000246
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: Field Blank Sample Number: 118943

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5747	1
Ethylbenzene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5747	1
Toluene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5747	1
m,p-xylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5747	1
o-xylene		<1	ug/L	S-8260B	2/18/99	2/18/99	JG		5747	1
Surr. Dibromofluoromethane		99	%	S-8260B	2/18/99	2/18/99	JG		5747	72-130
Surr. Toluene-d8		99	%	S-8260B	2/18/99	2/18/99	JG		5747	77-127
Surr. 4-Bromofluorobenzene		97	%	S-8260B	2/18/99	2/18/99	JG		5747	72-131

Quality Control Report
Blanks

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/10/99
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Order ID Number: 9902000246
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Benzene		<1	ug/L	1	2/15/99		5746
Ethylbenzene		<1	ug/L	1	2/15/99		5746
Toluene		<1	ug/L	1	2/15/99		5746
m,p-xylene		<1	ug/L	1	2/15/99		5746
o-xylene		<1	ug/L	1	2/15/99		5746
Surr. Dibromofluoromethane		102	%	1	2/15/99		5746
Surr. Toluene-d8		98	%	1	2/15/99		5746
Surr. 4-Bromofluorobenzene		99	%	1	2/15/99		5746
Benzene		<1	ug/L	1	2/18/99		5747
Ethylbenzene		<1	ug/L	1	2/18/99		5747
Toluene		<1	ug/L	1	2/18/99		5747
m,p-xylene		<1	ug/L	1	2/18/99		5747
o-xylene		<1	ug/L	1	2/18/99		5747
Surr. Dibromofluoromethane		101	%	1	2/18/99		5747
Surr. Toluene-d8		98	%	1	2/18/99		5747
Surr. 4-Bromofluorobenzene		97	%	1	2/18/99		5747
2,6-dichlorphenol		<0.005	mg/L	0.005	02/13/99	5606	5748
2,4,5-Trichlorophenol		<0.005	mg/L	0.005	02/13/99	5606	5748
2,4,6-Trichlorophenol		<0.005	mg/L	0.005	02/13/99	5606	5748
2,4-Dinitro-o-cresol		<0.005	mg/L	0.005	02/13/99	5606	5748
2,4-dinitrophenols		<0.025	mg/L	0.025	02/13/99	5606	5748
Pentachlorophenol		<0.005	mg/L	0.005	02/13/99	5606	5748
Anthracene		<0.001	mg/L	0.001	02/13/99	5606	5748
3,4-Benzofluoranthene		<0.001	mg/L	0.001	02/13/99	5606	5748
Benzo(k)fluoranthene		<0.001	mg/L	0.001	02/13/99	5606	5748
Fluoranthene		<0.001	mg/L	0.001	02/13/99	5606	5748
Fluorene		<0.001	mg/L	0.001	02/13/99	5606	5748
Phenanthrene		<0.001	mg/L	0.001	02/13/99	5606	5748
Pyrene		<0.001	mg/L	0.001	02/13/99	5606	5748
Naphthalene		<0.001	mg/L	0.001	02/13/99	5606	5748
Benzo-a-pyrene		<0.001	mg/L	0.001	02/13/99	5606	5748
Phenol		<0.001	mg/L	0.001	02/13/99	5606	5748
2-Chlorophenol		<0.005	mg/L	0.005	02/13/99	5606	5748
2-Methyphenol		<0.001	mg/L	0.001	02/13/99	5606	5748
3-Methyphenol		<0.001	mg/L	0.001	02/13/99	5606	5748
4-Methyphenol		<0.001	mg/L	0.001	02/13/99	5606	5748
2-Nitrophenol		<0.005	mg/L	0.005	02/13/99	5606	5748

Quality Control Report
Blanks

Order ID Number: 9902000246
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/10/99
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Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
2,4-Dimethylphenol		<0.005	mg/L	0.005	02/13/99	5606	5748
2,4-dichlorphenol		<0.005	mg/L	0.005	02/13/99	5606	5748
4-Chloro-3-methylphenol		<0.005	mg/L	0.005	02/13/99	5606	5748
Acenaphthylene		<0.001	mg/L	0.001	02/13/99	5606	5748
Acenaphthene		<0.001	mg/L	0.001	02/13/99	5606	5748
4-Nitrophenol		<0.005	mg/L	0.005	02/13/99	5606	5748
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	0.005	02/13/99	5606	5748
Benz(a)anathracene		<0.001	mg/L	0.001	02/13/99	5606	5748
Chrysene		<0.001	mg/L	0.001	02/13/99	5606	5748
Indeno-{1,2,3-cd}pyrene		<0.001	mg/L	0.001	02/13/99	5606	5748
Dibenz{a,h}anathraene		<0.001	mg/L	0.001	02/13/99	5606	5748
Benzo{g,h,i}perylene		<0.001	mg/L	0.001	02/13/99	5606	5748
Surr. 2-Fluorophenol		42	%	21-110	02/13/99	5606	5748
Surr. Phenol-d6		18	%	10-94	02/13/99	5606	5748
Surr. Nitrobenzene-d5		77	%	35-114	02/13/99	5606	5748
Surr. 2-Fluorobiphenyl		84	%	43-116	02/13/99	5606	5748
Surr. 2,4,6-Tribromophenol		66	%	10-123	02/13/99	5606	5748
Surr. Terphenyl-d14	*	150	%	33-141	02/13/99	5606	5748
[redacted]enic		<0.10	mg/L	6010B	2/16/99	5608	5750
Barium		<0.10	mg/L	6010B	2/16/99	5608	5750
Cadmium		<0.01	mg/L	6010B	2/16/99	5608	5750
Chromium		<0.05	mg/L	6010B	2/16/99	5608	5750
Lead		<0.05	mg/L	6010B	2/16/99	5608	5750
Total Mercury		<0.0002	mg/L	7470A	2/18/99	5607	5749
Selenium		<0.05	mg/L	6010B	2/16/99	5608	5750
Silver		<0.05	mg/L	6010B	2/16/99	5608	5750
Uranium		<0.10	mg/L	6010B	2/16/99	5608	5750
Copper		<0.10	mg/L	6010B	2/16/99	5608	5750
Iron		<0.10	mg/L	6010B	2/16/99	5608	5750
Manganese		<0.10	mg/L	6010B	2/16/99	5608	5750
Zinc		<0.10	mg/L	6010B	2/16/99	5608	5750
Aluminum		<0.10	mg/L	6010B	2/16/99	5608	5750
Boron		<0.10	mg/L	6010B	2/16/99	5608	5750
Cobalt		<0.05	mg/L	6010B	2/16/99	5608	5750
Molybdenum		<0.10	mg/L	6010B	2/16/99	5608	5750
Nickel		<0.10	mg/L	6010B	2/16/99	5608	5750

*Surrogate out of control limit.

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/10/99
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Order ID Number: 9902000246
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	88	88	02/15/99	5746
1,1-Dichloroethene		100	ug/L	114	114	02/15/99	5746
Chloroform		100	ug/L	114	114	02/15/99	5746
1,2-Dichloropropane		100	ug/L	93	93	02/15/99	5746
Toluene		100	ug/L	99	99	02/15/99	5746
Chlorobenzene		100	ug/L	98	98	02/15/99	5746
Ethylbenzene		100	ug/L	100	100	02/15/99	5746
Surr. Dibromofluoromethane		100	%	106	106	02/15/99	5746
Surr. Toluene-d8		100	%	96	96	02/15/99	5746
Surr. 4-Bromofluorobenzene		100	%	104	104	02/15/99	5746
Vinyl chloride		100	ug/L	98	98	02/18/99	5747
1-Dichloroethene		100	ug/L	119	119	02/18/99	5747
Chloroform		100	ug/L	116	116	02/18/99	5747
1,2-Dichloropropane		100	ug/L	97	97	02/18/99	5747
Toluene		100	ug/L	109	109	02/18/99	5747
Chlorobenzene		100	ug/L	105	105	02/18/99	5747
Ethylbenzene		100	ug/L	105	105	02/18/99	5747
Surr. Dibromofluoromethane		100	%	101	101	02/18/99	5747
Surr. Toluene-d8		100	%	98	98	02/18/99	5747
Surr. 4-Bromofluorobenzene		100	%	100	100	02/18/99	5747
Phenol		80	mg/L	76	95	02/13/99	5748
1,4-Dichlorobenzene		80	mg/L	77	96	02/13/99	5748
2-nitrophenol		80	mg/L	71	89	02/13/99	5748
2,4-Dichlorophenol		80	mg/L	72	90	02/13/99	5748
Hexachlorobutadiene		80	mg/L	74	93	02/13/99	5748
4-Chloro-3-methylphenol		80	mg/L	69	86	02/13/99	5748
2,4,6-Trichlorophenol		80	mg/L	77	96	02/13/99	5748
Acenaphthene		80	mg/L	75	94	02/13/99	5748
n-Nitrosodiphenylamine		80	mg/L	67	84	02/13/99	5748
Pentachlorophenol		80	mg/L	80	100	02/13/99	5748
Fluoranthene		80	mg/L	71	89	02/13/99	5748
Di-n-octylphthalate		80	mg/L	90	113	02/13/99	5748
Benzo(a)pyrene		80	mg/L	76	95	02/13/99	5748

Quality Control Report
Continuing Calibration Verification Standard

Order ID Number: 9902000246
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 03/10/99
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Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Surr. 2-Fluorophenol		80	%	74	93	02/13/99	5748
Surr. Phenol-d6		80	%	74	93	02/13/99	5748
Surr. Nitroobenzene-d5		80	%	73	91	02/13/99	5748
Surr. 2-Fluorobiphenyl		80	%	72	90	02/13/99	5748
Surr. 2,4,6-Tribromophenol		80	%	76	95	02/13/99	5748
Surr. Terphenyl-d14		80	%	78	98	02/13/99	5748
Arsenic		1.0	mg/L	0.98	98	02/16/99	5750
Barium		1.0	mg/L	1.0	100	02/16/99	5750
Cadmium		1.0	mg/L	1.0	100	02/16/99	5750
Chromium		1.0	mg/L	1.0	100	02/16/99	5750
Lead		1.0	mg/L	0.99	99	02/16/99	5750
Total Mercury		0.0010	mg/L	0.00096	96	02/18/99	5749
Selenium		1.0	mg/L	0.99	99	02/16/99	5750
Silver		0.20	mg/L	0.19	95	02/16/99	5750
Uranium		1.0	mg/L	0.99	99	02/16/99	5750
Copper		1.0	mg/L	0.99	99	02/16/99	5750
Iron		1.0	mg/L	0.98	98	02/16/99	5750
Manganese		1.0	mg/L	1.0	100	02/16/99	5750
Zinc		1.0	mg/L	1.0	100	02/16/99	5750
Aluminum		1.0	mg/L	0.99	99	02/16/99	5750
Boron		1.0	mg/L	0.99	99	02/16/99	5750
Cobalt		1.0	mg/L	0.99	99	02/16/99	5750
Molybdenum		1.0	mg/L	0.98	98	02/16/99	5750
Nickel		1.0	mg/L	0.98	98	02/16/99	5750

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/10/99

Order ID Number: 9902000246
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	116	116	100	117	117	1	2/15/99		5746
Benzene		ug/L	<1	100	112	112	100	113	113	1	2/15/99		5746
Trichloroethene		ug/L	<1	100	101	101	100	103	103	2	2/15/99		5746
Toluene		ug/L	<1	100	108	108	100	108	108	0	2/15/99		5746
Chlorobenzene		ug/L	<1	100	107	107	100	108	108	1	2/15/99		5746
Surr. Dibromofluoromethane		%	104	100	103	103	100	101	101	2	2/15/99		5746
Surr. Toluene-d8		%	99	100	98	98	100	98	98	0	2/15/99		5746
Surr. 4-Bromofluorobenzene		%	101	100	101	101	100	101	101	0	2/15/99		5746
1,1-Dichloroethene		ug/L	<1	100	113	113	100	117	117	3	2/15/99		5746
[illegible]zene		ug/L	<1	100	113	113	100	115	115	2	2/18/99		5747
Trichloroethene		ug/L	<1	100	101	101	100	103	103	2	2/18/99		5747
Toluene		ug/L	<1	100	109	109	100	109	109	0	2/18/99		5747
Chlorobenzene		ug/L	<1	100	108	108	100	108	108	0	2/18/99		5747
Surr. Dibromofluoromethane		%	101	100	100	100	100	103	103	3	2/18/99		5747
Surr. Toluene-d8		%	98	100	99	99	100	97	97	2	2/18/99		5747
Surr. 4-Bromofluorobenzene		%	97	100	96	96	100	98	98	2	2/18/99		5747
Phenol		mg/L	<0.001	100	31	31	100	30	30	3	2/13/99	5606	5748
2-Chlorophenol		mg/L	<0.005	100	73	73	100	78	78	7	2/13/99	5606	5748
1,4-Dichlorobenzene		mg/L	<0.001	100	70	70	100	74	74	6	2/13/99	5606	5748
n-Nitrosodi-n-propylamine		mg/L	<0.001	100	71	71	100	76	76	7	2/13/99	5606	5748
1,2,4-trichlorobenzene		mg/L	<0.001	100	63	63	100	64	64	2	2/13/99	5606	5748
4-Chloro-3-methylphenol		mg/L	<0.005	100	69	69	100	72	72	4	2/13/99	5606	5748
Acenaphthene		mg/L	<0.001	100	72	72	100	76	76	5	2/13/99	5606	5748
4-Nitrophenol		mg/L	<0.005	100	24	24	100	23	23	4	2/13/99	5606	5748
2,4-Dinitrotoluene		mg/L	<0.001	100	80	80	100	80	80	0	2/13/99	5606	5748
Pentachlorophenol		mg/L	<0.005	100	75	75	100	75	75	0	2/13/99	5606	5748
Pyrene		mg/L	<0.001	100	80	80	100	81	81	1	2/13/99	5606	5748
Surr. 2-Fluorophenol		%	77	100	41	41	100	38	38	8	2/13/99	5606	5748
Surr. Phenol-d6		%	68	100	28	28	100	28	28	0	2/13/99	5606	5748
Surr. Nitrobenzene-d5		%	68	100	72	72	100	75	75	4	2/13/99	5606	5748
Surr. 2-Fluorobiphenyl		%	81	100	73	73	100	78	78	7	2/13/99	5606	5748
Surr. 2,4,6-Tribromophenol		%	81	100	89	89	100	94	94	5	2/13/99	5606	5748
Surr. Terphenyl-d14		%	117	100	95	95	100	95	95	0	2/13/99	5606	5748

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/10/99

Order ID Number: 9902000246
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Arsenic		mg/L	<0.10	2.0	2.2	110	2.0	2.2	110	0	2/16/99	5608	5750
Barium		mg/L	0.11	2.0	2.1	105	2.0	2.1	105	0	2/16/99	5608	5750
Cadmium		mg/L	<0.01	2.0	2.0	100	2.0	2.0	100	0	2/16/99	5608	5750
Chromium		mg/L	<0.05	2.0	2.0	100	2.0	2.0	100	0	2/16/99	5608	5750
Lead		mg/L	<0.05	2.0	2.0	100	2.0	2.0	100	0	2/16/99	5608	5750
Total Mercury		mg/L	<0.0002	0.0010	0.00090	90	0.0010	0.00080	80	12	2/18/99	5607	5749
Selenium		mg/L	<0.05	2.0	2.1	105	2.0	2.0	100	5	2/16/99	5608	5750
Silver		mg/L	<0.05	0.25	0.23	92	0.25	0.24	96	4	2/16/99	5608	5750
Uranium		mg/L	<0.10	2.0	2.0	100	2.0	2.0	100	0	2/16/99	5608	5750
Copper		mg/L	<0.10	2.0	2.0	100	2.0	2.0	100	0	2/16/99	5608	5750
Iron		mg/L	0.11	2.0	2.2	105	2.0	2.2	110	0	2/16/99	5608	5750
Manganese		mg/L	<0.10	2.0	2.1	105	2.0	2.1	105	0	2/16/99	5608	5750
Zinc		mg/L	<0.10	2.0	2.1	105	2.0	2.0	100	5	2/16/99	5608	5750
Aluminum		mg/L	<0.10	2.0	2.0	100	2.0	1.9	95	5	2/16/99	5608	5750
Boron		mg/L	0.62	2.0	2.7	135	2.0	2.7	135	0	2/16/99	5608	5750
Cobalt		mg/L	<0.05	2.0	2.0	100	2.0	2.0	100	0	2/16/99	5608	5750
Molybdenum		mg/L	<0.10	0.20	0.20	100	0.20	0.19	95	5	2/16/99	5608	5750
Nickel		mg/L	<0.10	2.0	2.0	100	2.0	2.0	100	0	2/16/99	5608	5750

Cooler 2 of 2 Page 2 of 2

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 246

Company Name: BBC International, Inc. Phone #: (505) 397-6388

Address: (Street, City, Zip) 1324 W. Marland, Hobbs, NM 88240 Fax #: (505) 397-0397

Contact Person: Cliff P. Brunson

Invoice to: (If different from above) Shell E & P Technology Co. ATTN: Wayne Hamilton

Project #: Project Name: Shell Westgate

Project Location: Hobbs, New Mexico Sampler Signature: Shawn E. Hall

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
118939	GMW8	1	500ml	✓					✓	✓			2/12/98	10:20
40	GMW4	4	voa	✓				✓		✓				11:50
	GMW4	2	ltr	✓						✓				11:50
	GMW4	1	500ml	✓					✓	✓				11:50
118942	~~Field~~ Trip Blanks	2	voa	✓										
43	~~Trip~~ Field Blank BC	2	vocs	✓										
41	GMW 10	4	voa	✓				✓		✓				1:25
	GMW 10	2	ltr	✓						✓				1:25
	GMW 10	1	500ml	✓					✓	✓				1:25

ANALYSIS REQUEST

(Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	See Attached (Full Suite)	Total Chlorides (300-1)	Total Metals (6010)	Turn Around Time if different from standard	Hold
										BTEX						✓			
										✓							✓		
											✓								
																✓			
										✓									
										✓									
										✓									
										✓									
											✓								
																✓			

Relinquished by: Shawn E. Hall Date: 2/12/98 Time: 4:10 ~~12:00~~

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received at Laboratory by: Nicki Wyndham Date: 2-13-98 Time: 11:15 am

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

LAB USE ONLY

Intact (Y) N

Headspace Y (N)

Temp 4 °

Log-in Review

REMARKS:

Agreed Upon Turnaround

Carrier # Bus 902 071 9774

118936-43

Cooler 1 of 2

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
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TraceAnalysis, Inc.

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El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 246

Company Name: BBC International, Inc.
Phone #: (505) 397-6388
Address: (Street, City, Zip) 1324 W. Marland, Hobbs, NM 88240
Fax #: (505) 397-0397
Contact Person: Cliff P. Brunson
Invoice to: (If different from above) Shell E & P Technology Co. ATTN: Wayne Hamilton
Project #:
Project Name: Shell Westgate
Project Location: Hobbs, New Mexico
Sampler Signature: Shawn E. Haed

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
118936	Tmw 1	4	Voa	✓				✓		✓			2/12/99	10:00
	Tmw 1	2	1-ltr	✓						✓				
	Tmw 1	1	500ml	✓					✓	✓				
37	Tmw2	4	Voa	✓				✓		✓				9:20
	Tmw2	2	ltr	✓					⊘	✓				
	Tmw2	1	500ml	✓					✓	✓				
38	GMW7	4	Voa	✓				✓		✓				11:05
	GMW7	2	ltr	✓						✓				11:05
	GMW7	1	500ml	✓					✓	✓				11:05
39	GMW8	4	Voa	✓				✓		✓				10:20
	GMW8	2	ltr	✓						✓				10:20

ANALYSIS REQUEST

(Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624 BTEX	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	See Attached (Full Suite)	Total Chlorides (300-1)	Total Metals (6010)	Turn Around Time if different from standard	Hold
										✓									
											✓								
																✓			
										✓									
											✓								
																✓			
										✓									
											✓								
																✓			
										✓									
											✓								

Relinquished by: Shawn E Haed Date: 2/12/99 Time: 12:00
Received by: Date: Time:

Relinquished by: Date: Time:
Received by: Date: Time:

Relinquished by: Date: Time:
Received at Laboratory by: Date: Time:
Vicki Windham 2-13-99 11:15a

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

LAB USE ONLY

Intact (Y) N
Headspace Y (N)
Temp 4 °
Log-in Review

REMARKS:

Agreed Upon Turnaround

Carrier # Bus 902 091 997 4

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/11/99
Page: # 1

Project Name: Shell Westgate **CORRECTED**
Project Location: Hobbs, NM
Order ID Number: 9902000391

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
119546*	TMW-4 (Resample)	Water	02/24/99	9:30 a.m.	02/25/99
119547*	GMW-11 (Resample)	Water	02/24/99	10:30 a.m.	02/25/99

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

This report shall not be reproduced except in its entirety, without written approval of the laboratory.

These results represent only the samples received in the laboratory.

This report consists of a total of 5 pages.

*Corrected lab sample numbers.

Dr. Blair Leftwich
Director

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99
Page # 2

CORRECTED

Order ID Number: 9902000391
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TMW-4 (Resample) Sample Number: 119546*

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin		<0.02	ug/L	8081	2/26/99	3/1/99	SH			0.02
Chlordane		<0.10	ug/L	8081	2/26/99	3/1/99	SH			0.10
DDT		<0.03	ug/L	8081	2/26/99	3/1/99	SH			0.03
Dieldrin		<0.02	ug/L	8081	2/26/99	3/1/99	SH			0.02
Endosulfan		<0.03	ug/L	8081	2/26/99	3/1/99	SH			0.03
Endrin		<0.05	ug/L	8081	2/26/99	3/1/99	SH			0.05
Heptachlor		<0.03	ug/L	8081	2/26/99	3/1/99	SH			0.03

*Corrected lab sample number.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/11/99
Page #3

CORRECTED

Order ID Number: 9902000391
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW-11 (Resample) Sample Number: 119547*

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin		<0.02	ug/L	8081	2/26/99	3/1/99	SH			0.02
Chlordane		<0.10	ug/L	8081	2/26/99	3/1/99	SH			0.10
DDT		<0.03	ug/L	8081	2/26/99	3/1/99	SH			0.03
Dieldrin		<0.02	ug/L	8081	2/26/99	3/1/99	SH			0.02
Endosulfan		<0.03	ug/L	8081	2/26/99	3/1/99	SH			0.03
Endrin		<0.05	ug/L	8081	2/26/99	3/1/99	SH			0.05
Heptachlor		<0.03	ug/L	8081	2/26/99	3/1/99	SH			0.03

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-

Report Date: *02-Mar-99*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Attn: Nell Green

Our Lab#: MEL99-02619 **Your Sample ID:** 119546
Date Logged In: 2/26/99 **Sample Source:** RCRA
Sample Type: Water **Client Project #:**
Project #: **Date Submitted to Lab:** 2/26/99 **PO#:** No Charge

- COLLECTION INFORMATION -

Date/Time/By: 2/24/99

Resample of 118890.

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	2/26/99	3/1/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 ug/l	0.02
57-74-9	Chlordane(Total)	< 0.10 ug/l	0.1
50-29-3	4,4'-DDT	< 0.03 ug/l	0.03
60-57-1	Dieldrin	< 0.02 ug/l	0.02
959-98-8	Endosulfan I	< 0.03 ug/l	0.03
72-20-8	Endrin	< 0.05 ug/l	0.05
76-44-8	Heptachlor	< 0.03 ug/l	0.03

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-02619	8081	Decachlorobiphenyl (Surr)	45 %R	20	150
MEL99-02619	8081	Tetrachloro-m-xylene (Surr)	42 %R	40	130

End of Report

Report Approved By: Wade E. Bayer

Wade E. Bayer

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PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565 **Report Date:** *02-Mar-99*

Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Attn: Nell Green

Our Lab#: MEL99-02620 **Your Sample ID:** 119547
Date Logged In: 2/26/99 **Sample Source:** RCRA
Sample Type: Water **Client Project #:**
Project #: **Date Submitted to Lab:** 2/26/99 **PO#:** No Charge

- COLLECTION INFORMATION -

Date/Time/By: 2/24/99

Resample of 118892.

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	2/26/99	3/1/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 ug/l	0.02
57-74-9	Chlordane(Total)	< 0.10 ug/l	0.1
50-29-3	4,4'-DDT	< 0.03 ug/l	0.03
60-57-1	Dieldrin	< 0.02 ug/l	0.02
959-98-8	Endosulfan I	< 0.03 ug/l	0.03
72-20-8	Endrin	< 0.05 ug/l	0.05
76-44-8	Heptachlor	< 0.03 ug/l	0.03

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-02620	8081	Decachlorobiphenyl (Surr)	30 %R	20	150
MEL99-02620	8081	Tetrachloro-m-xylene (Surr)	50 %R	40	130

End of Report

Report Approved By: Wade E. Bayer
Wade E. Bayer

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11546

Page 1 of 1

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1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 341

Company Name: BBC International, Inc.
Phone #: (505) 397-6388
Address: (Street, City, Zip) 1324 W. Marland, Hobbs, NM 88240
Fax #: (505) 397-0397
Contact Person: Cliff P. Brunson
Invoice to: (If different from above) Shell E & P Technology Co. ATTN: Wayne Hamilton
Project #:
Project Name: Shell Westgate
Project Location: Hobbs, New Mexico
Sampler Signature: Daniel A. Williams

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
119546	TMW-4 (Resample)	2	1 Liter	X						X			2/24/99	9:30 am
47														
	GMW-11 (Resample)	2	1 Liter	X						X			2/24/99	10:30 am

ANALYSIS REQUEST

(Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	See Attached (Full Suite)	Total Chlorides (300-1)	Total Metals (6010)	Turn Around Time if different from standard	Hold

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Daniel A. Williams	2-24-99	1:30 pm			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: Vicki Wrede	Date: 2-25-99	Time: 9:00 am

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

LAB USE ONLY

Intact (Y) N
Headspace Y / N
Temp 4 °
Log-in Review MS

REMARKS: Pesticides re sample. Agreed Upon Turnaround

Carrier # Bus 9926719818

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/18/99
Page: # 1

Project Name: Shell Westgate
Project Location: Hobbs, NM
Order ID Number: 9902000295

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
119134	GMW 1	Water	02/16/99	2:20 p.m.	02/18/99
119135	GMW 2	Water	02/16/99	1:30 p.m.	02/18/99
119136	GMW 3B	Water	02/16/99	2:50 p.m.	02/18/99
119137	GMW 5	Water	02/16/99	3:50 p.m.	02/18/99
119138	GMW 6	Water	02/16/99	3:30 p.m.	02/18/99
119139	Trip Blanks	Water	02/16/99		02/18/99

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

This report shall not be reproduced except in its entirety, without written approval of the laboratory.

These results represent only the samples received in the laboratory.

This report consists of a total of 21 pages.

*ERL-Volatiles elevated reporting limit due to hydrocarbons present. Sample 119134, 119136, 119137
*Sample 119135, 2,4,6-Tribromophenol was not present in extract. Reran sample to confirm. Surrogates 2-Fluorobiphenyl, 2-Fluorophenol, Phenol-d6, and 2,4,6-Tribromophenol were below control limits.
*ERL-Volatiles elevated reporting limit due to foamy matrix. Sample 119135 and 119138
*ERL-Semi-volatiles 119137 elevated reporting limit due to hydrocarbons present.

Dr. Blair Leftwich
Director

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Order ID Number: 9902000295
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 1 Sample Number: 119134

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzene	*ERL	<10	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	10
Ethylbenzene		110	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	10
Toluene	*ERL	<10	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	10
m,p-xylene		430	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	10
o-xylene		100	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	10
Surr. Dibromofluoromethane		105	%	S-8260B	02/24/99	02/24/99	JG		5751	72-130
Surr. Toluene-d8		106	%	S-8260B	02/24/99	02/24/99	JG		5751	77-127
Surr. 4-Bromofluorobenzene		98	%	S-8260B	02/24/99	02/24/99	JG		5751	72-131
2,6-dichlorphenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
2,4,5-Trichlorophenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
2,4,6-Trichlorophenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
2,4-Dinitro-o-cresol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
2,4-dinitrophenols		<0.025	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.025
Pentachlorophenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
Anthracene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
3,4-Benzofluoranthene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Benzo(k)fluoranthene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Fluoranthene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Fluorene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Phenanthrene		0.004	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Pyrene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Naphthalene		0.024	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Benzo-a-pyrene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Phenol		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
2-Chlorophenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
2-Methyphenol		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
3-Methyphenol		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
4-Methyphenol		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
2-Nitrophenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
2,4-Dimethylphenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
2,4-dichlorphenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
4-Chloro-3-methylphenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
Acenaphthylene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Acenaphthene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001

*ERL-elevated reporting limit due to hydrocarbons present.

Order ID Number: 9902000295
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/18/99
Page # 3

Field Code: GMW 1

Sample Number: 119134

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
4-Nitrophenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
Benz(a)anathracene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Chrysene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Indeno-{1,2,3-cd}pyrene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Dibenz{a,h}anathraene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Benzo{g,h,i}perylene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Surr. 2-Fluorophenol		37	%	8270C	02/19/99	02/24/99	DG	5609	5752	21-100
Surr. Phenol-d6		26	%	8270C	02/19/99	02/24/99	DG	5609	5752	10-94
Surr. Nitrobenzene-d5		63	%	8270C	02/19/99	02/24/99	DG	5609	5752	35-114
Surr. 2-Fluorobiphenyl		61	%	8270C	02/19/99	02/24/99	DG	5609	5752	43-116
Surr. 2,4,6-Tribromophenol		63	%	8270C	02/19/99	02/24/99	DG	5609	5752	10-123
Surr. Terphenyl-d14		73	%	8270C	02/19/99	02/24/99	DG	5609	5752	33-141
Arsenic		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Barium		0.30	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Cadmium		<0.01	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.01
Chromium		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Lead		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Total Mercury		<0.0002	mg/L	7470A	2/19/99	2/23/99	BP	0107	0101	0.0002
Selenium		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Silver		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Uranium		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Copper		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Iron		0.29	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Manganese		0.34	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Zinc		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Aluminum		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Boron		0.25	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Cobalt		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Molybdenum		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Nickel		0.25	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Order ID Number: 9902000295
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 2 Sample Number: 119135

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzene	*ERL	<100	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	100
Ethylbenzene	*ERL	<100	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	100
Toluene	*ERL	<100	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	100
m,p-xylene	*ERL	<100	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	100
o-xylene	*ERL	<100	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	100
Surr. Dibromofluoromethane		102	%	S-8260B	02/24/99	02/24/99	JG		5751	72-130
Surr. Toluene-d8		108	%	S-8260B	02/24/99	02/24/99	JG		5751	77-127
Surr. 4-Bromofluorobenzene		97	%	S-8260B	02/24/99	02/24/99	JG		5751	72-131
2,6-dichlorphenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
2,4,5-Trichlorophenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
2,4,6-Trichlorophenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
2,4-Dinitro-o-cresol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
2,4-dinitrophenols		<0.025	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.025
Pentachlorophenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
Anthracene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
3,4-Benzofluoranthene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Benzo(k)fluoranthene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Fluoranthene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Fluorene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Phenanthrene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Pyrene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Naphthalene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Benzo-a-pyrene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Phenol		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
2-Chlorophenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
2-Methyphenol		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
3-Methyphenol		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
4-Methyphenol		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
2-Nitrophenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
2,4-Dimethylphenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
2,4-dichlorphenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
4-Chloro-3-methylphenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
Acenaphthylene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Acenaphthene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
4-Nitrophenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005

*ERL-elevated reporting limit due to foamy matrix.

Order ID Number: 9902000295
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/18/99
Page # 5

Field Code: GMW 2

Sample Number: 119135

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
Benz(a)anathracene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Chrysene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Indeno-{1,2,3-cd}pyrene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Dibenz{a,h}anathraene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Benzo{g,h,i}perylene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Surr. 2-Fluorophenol	*	2	%	8270C	02/19/99	02/24/99	DG	5609	5752	21-100
Surr. Phenol-d6	*	3	%	8270C	02/19/99	02/24/99	DG	5609	5752	10-94
Surr. Nitrobenzene-d5		37	%	8270C	02/19/99	02/24/99	DG	5609	5752	35-114
Surr. 2-Fluorobiphenyl	*	40	%	8270C	02/19/99	02/24/99	DG	5609	5752	43-116
Surr. 2,4,6-Tribromophenol	*	0	%	8270C	02/19/99	02/24/99	DG	5609	5752	10-123
Surr. Terphenyl-d14		69	%	8270C	02/19/99	02/24/99	DG	5609	5752	33-141
Arsenic		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Barium		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Cadmium		<0.01	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.01
Chromium		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Lead		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Total Mercury		<0.0002	mg/L	7470A	2/19/99	2/23/99	BP	0107	0101	0.0002
Selenium		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Silver		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Uranium		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Copper		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Iron		0.13	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Manganese		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Zinc		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Aluminum		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Boron		0.23	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Cobalt		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Molybdenum		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Nickel		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10

*2,4,6-Tribromophenol was not present in extract. Reran sample to confirm. Surrogates 2-Fluorobiphenyl, 2-Fluorophenol, Phenol-d6, and 2,4,6-Tribromophenol were below control limits.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/18/99
Page # 6

Order ID Number: 9902000295
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 3B

Sample Number: 119136

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzene	*ERL	<5	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	5
Ethylbenzene		60	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	5
Toluene	*ERL	<5	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	5
m,p-xylene		480	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	5
o-xylene		106	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	5
Surr. Dibromofluoromethane		103	%	S-8260B	02/24/99	02/24/99	JG		5751	72-130
Surr. Toluene-d8		108	%	S-8260B	02/24/99	02/24/99	JG		5751	77-127
Surr. 4-Bromofluorobenzene		100	%	S-8260B	02/24/99	02/24/99	JG		5751	72-131
2,6-dichlorphenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
2,4,5-Trichlorophenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
2,4,6-Trichlorophenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
2,4-Dinitro-o-cresol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
2,4-dinitrophenols		<0.025	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.025
Pentachlorophenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
Anthracene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
3,4-Benzofluoranthene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Benzo(k)fluoranthene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Fluoranthene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Fluorene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Phenanthrene		0.003	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Pyrene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Naphthalene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Benzo-a-pyrene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Phenol		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
2-Chlorophenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
2-Methyphenol		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
3-Methyphenol		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
4-Methyphenol		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
2-Nitrophenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
2,4-Dimethylphenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
2,4-dichlorphenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
4-Chloro-3-methylphenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
Acenaphthylene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Acenaphthene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001

*ERL-elevated reporting limit due to hydrocarbons present.

Order ID Number: 9902000295
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/18/99
Page # 7

Field Code: GMW 3B

Sample Number: 119136

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
4-Nitrophenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.005
Benz(a)anathracene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Chrysene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Indeno-{1,2,3-cd}pyrene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Dibenz{a,h}anathraene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Benzo{g,h,i}perylene		<0.001	mg/L	8270C	02/19/99	02/24/99	DG	5609	5752	0.001
Surr. 2-Fluorophenol		32	%	8270C	02/19/99	02/24/99	DG	5609	5752	21-100
Surr. Phenol-d6		25	%	8270C	02/19/99	02/24/99	DG	5609	5752	10-94
Surr. Nitrobenzene-d5		63	%	8270C	02/19/99	02/24/99	DG	5609	5752	35-114
Surr. 2-Fluorobiphenyl		60	%	8270C	02/19/99	02/24/99	DG	5609	5752	43-116
Surr. 2,4,6-Tribromophenol		64	%	8270C	02/19/99	02/24/99	DG	5609	5752	10-123
Surr. Terphenyl-d14		77	%	8270C	02/19/99	02/24/99	DG	5609	5752	33-141
Arsenic		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Barium		0.26	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Cadmium		<0.01	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.01
Chromium		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Lead		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Total Mercury		<0.0002	mg/L	7470A	2/19/99	2/23/99	BP	0107	0101	0.0002
Selenium		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Silver		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Uranium		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Copper		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Iron		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Manganese		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Zinc		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Aluminum		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Boron		0.44	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Cobalt		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Molybdenum		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Nickel		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/18/99

Order ID Number: 9902000295
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 5 Sample Number: 119137

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzene	*ERL	<50	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	50
Ethylbenzene		70	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	50
Toluene	*ERL	<50	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	50
m,p-xylene		500	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	50
o-xylene		99	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	50
Surr. Dibromofluoromethane		105	%	S-8260B	02/24/99	02/24/99	JG		5751	72-130
Surr. Toluene-d8		108	%	S-8260B	02/24/99	02/24/99	JG		5751	77-127
Surr. 4-Bromofluorobenzene		101	%	S-8260B	02/24/99	02/24/99	JG		5751	72-131
2,6-dichlorphenol	*ERL	<0.050	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.050
2,4,5-Trichlorophenol	*ERL	<0.050	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.050
2,4,6-Trichlorophenol	*ERL	<0.050	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.050
2,4-Dinitro-o-cresol	*ERL	<0.050	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.050
2,4-dinitrophenols	*ERL	<0.250	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.250
Pentachlorophenol	*ERL	<0.050	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.050
Anthracene	*ERL	<0.010	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.010
3,4-Benzofluoranthene	*ERL	<0.010	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.010
Benzo(k)fluoranthene	*ERL	<0.010	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.010
Fluoranthene	*ERL	<0.010	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.010
Fluorene		0.011	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.010
Phenanthrene		0.022	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.010
Pyrene	*ERL	<0.010	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.010
Naphthalene		0.071	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.010
Benzo-a-pyrene	*ERL	<0.010	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.010
Phenol	*ERL	<0.010	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.010
2-Chlorophenol	*ERL	<0.050	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.050
2-Methyphenol	*ERL	<0.010	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.010
3-Methyphenol	*ERL	<0.010	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.010
4-Methyphenol	*ERL	<0.010	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.010
2-Nitrophenol	*ERL	<0.050	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.050
2,4-Dimethylphenol	*ERL	<0.050	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.050
2,4-dichlorphenol	*ERL	<0.050	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.050
4-Chloro-3-methylphenol	*ERL	<0.050	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.050
Acenaphthylene	*ERL	<0.010	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.010
Acenaphthene	*ERL	<0.010	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.010

*ERL-elevated reporting limit due to hydrocarbons present.

Order ID Number: 9902000295
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/18/99
Page # 9

Field Code: GMW 5

Sample Number: 119137

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
4-Nitrophenol	*ERL	<0.050	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.050
2,3,4,6-Tetrachlorophenol	*ERL	<0.050	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.050
Benz(a)anathracene	*ERL	<0.010	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.010
Chrysene	*ERL	<0.010	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.010
Indeno-{1,2,3-cd}pyrene	*ERL	<0.010	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.010
Dibenz{a,h}anathraene	*ERL	<0.010	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.010
Benzo{g,h,i}perylene	*ERL	<0.010	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.010
Surr. 2-Fluorophenol		29	%	8270C	02/19/99	03/16/99	DG	5609	0115	21-100
Surr. Phenol-d6		22	%	8270C	02/19/99	03/16/99	DG	5609	0115	10-94
Surr. Nitrobenzene-d5		96	%	8270C	02/19/99	03/16/99	DG	5609	0115	35-114
Surr. 2-Fluorobiphenyl		84	%	8270C	02/19/99	03/16/99	DG	5609	0115	43-116
Surr. 2,4,6-Tribromophenol		54	%	8270C	02/19/99	03/16/99	DG	5609	0115	10-123
Surr. Terphenyl-d14		87	%	8270C	02/19/99	03/16/99	DG	5609	0115	33-141
Arsenic		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Barium		0.15	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Cadmium		<0.01	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.01
Chromium		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Lead		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Total Mercury		<0.0002	mg/L	7470A	2/19/99	2/23/99	BP	0107	0101	0.0002
Selenium		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Silver		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Uranium		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Copper		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Iron		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Manganese		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Zinc		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Aluminum		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Boron		0.37	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Cobalt		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Molybdenum		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Nickel		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10

*ERL-elevated reporting limit due to hydrocarbons present.

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/18/99
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Order ID Number: 9902000295
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: GMW 6 Sample Number: 119138

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzene	*ERL	<100	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	100
Ethylbenzene	*ERL	<100	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	100
Toluene	*ERL	<100	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	100
m,p-xylene	*ERL	<100	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	100
o-xylene	*ERL	<100	ug/L	S-8260B	02/24/99	02/24/99	JG		5751	100
Surr. Dibromofluoromethane		103	%	S-8260B	02/24/99	02/24/99	JG		5751	72-130
Surr. Toluene-d8		108	%	S-8260B	02/24/99	02/24/99	JG		5751	77-127
Surr. 4-Bromofluorobenzene		100	%	S-8260B	02/24/99	02/24/99	JG		5751	72-131
2,6-dichlorphenol		<0.005	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.005
2,4,5-Trichlorophenol		<0.005	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.005
2,4,6-Trichlorophenol		<0.005	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.005
2,4-Dinitro-o-cresol		<0.005	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.005
2,4-dinitrophenols		<0.025	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.025
Pentachlorophenol		<0.005	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.005
Anthracene		<0.001	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.001
3,4-Benzofluoranthene		<0.001	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.001
Benzo(k)fluoranthene		<0.001	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.001
Fluoranthene		<0.001	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.001
Fluorene		<0.001	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.001
Phenanthrene		<0.001	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.001
Pyrene		<0.001	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.001
Naphthalene		<0.001	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.001
Benzo-a-pyrene		<0.001	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.001
Phenol		<0.001	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.001
2-Chlorophenol		<0.005	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.005
2-Methyphenol		<0.001	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.001
3-Methyphenol		<0.001	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.001
4-Methyphenol		<0.001	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.001
2-Nitrophenol		<0.005	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.005
2,4-Dimethylphenol		<0.005	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.005
2,4-dichlorphenol		<0.005	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.005
4-Chloro-3-methylphenol		<0.005	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.005
Acenaphthylene		<0.001	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.001
Acenaphthene		<0.001	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.001

*ERL-elevated reporting limit due to foamy matrix.

Order ID Number: 9902000295
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/18/99
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Field Code: GMW 6

Sample Number: 119138

Parameter	Flag		Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
4-Nitrophenol		<0.005	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.005
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.005
Benz(a)anathracene		<0.001	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.001
Chrysene		<0.001	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.001
Indeno-{1,2,3-cd}pyrene		<0.001	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.001
Dibenz{a,h}anathraene		<0.001	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.001
Benzo{g,h,i}perylene		<0.001	mg/L	8270C	02/19/99	03/16/99	DG	5609	0115	0.001
Surr. 2-Fluorophenol		29	%	8270C	02/19/99	03/16/99	DG	5609	0115	21-100
Surr. Phenol-d6		21	%	8270C	02/19/99	03/16/99	DG	5609	0115	10-94
Surr. Nitrobenzene-d5		63	%	8270C	02/19/99	03/16/99	DG	5609	0115	35-114
Surr. 2-Fluorobiphenyl		58	%	8270C	02/19/99	03/16/99	DG	5609	0115	43-116
Surr. 2,4,6-Tribromophenol		56	%	8270C	02/19/99	03/16/99	DG	5609	0115	10-123
Surr. Terphenyl-d14		88	%	8270C	02/19/99	03/16/99	DG	5609	0115	33-141
Arsenic		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Barium		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Cadmium		<0.01	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.01
Chromium		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Lead		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Total Mercury		<0.0002	mg/L	7470A	2/19/99	2/23/99	BP	0107	0101	0.0002
Selenium		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Silver		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Uranium		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Copper		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Iron		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Manganese		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Zinc		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Aluminum		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Boron		0.19	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Cobalt		<0.05	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.05
Molybdenum		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10
Nickel		<0.10	mg/L	6010B	2/18/99	2/18/99	RR	0108	0102	0.10

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/18/99
Page #12

Order ID Number: 9902000295
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: Trip Blanks

Sample Number: 119139

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzene		<1	ug/L	S-8260B	02/27/99	02/27/99	JG		5766	1
Ethylbenzene		<1	ug/L	S-8260B	02/27/99	02/27/99	JG		5766	1
Toluene		<1	ug/L	S-8260B	02/27/99	02/27/99	JG		5766	1
m,p-xylene		<1	ug/L	S-8260B	02/27/99	02/27/99	JG		5766	1
o-xylene		<1	ug/L	S-8260B	02/27/99	02/27/99	JG		5766	1
Surr. Dibromofluoromethane		100	%	S-8260B	02/27/99	02/27/99	JG		5766	72-130
Surr. Toluene-d8		111	%	S-8260B	02/27/99	02/27/99	JG		5766	77-127
Surr. 4-Bromofluorobenzene		94	%	S-8260B	02/27/99	02/27/99	JG		5766	72-131

Quality Control Report
Blanks

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/18/99
Page #13

Order ID Number: 9902000295
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Result	Units	Limit	Analyzed	Prep Batch #	Run Batch #
Benzene		<1	ug/L	1	2/24/99		5751
Ethylbenzene		<1	ug/L	1	2/24/99		5751
Toluene		<1	ug/L	1	2/24/99		5751
m,p-xylene		<1	ug/L	1	2/24/99		5751
o-xylene		<1	ug/L	1	2/24/99		5751
Surr. Dibromofluoromethane		106	%	72-130	2/24/99		5751
Surr. Toluene-d8		110	%	77-127	2/24/99		5751
Surr. 4-Bromofluorobenzene		99	%	72-131	2/24/99		5751
Benzene		<1	ug/L	1	2/27/99		5766
Ethylbenzene		<1	ug/L	1	2/27/99		5766
Toluene		<1	ug/L	1	2/27/99		5766
m,p-xylene		<1	ug/L	1	2/27/99		5766
o-xylene		<1	ug/L	1	2/27/99		5766
Surr. Dibromofluoromethane		104	%	72-130	2/27/99		5766
Surr. Toluene-d8		110	%	77-127	2/27/99		5766
Surr. 4-Bromofluorobenzene		95	%	72-131	2/27/99		5766

Quality Control Report
Blanks

Order ID Number: 9902000295
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/18/99
Page #14

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
2,6-dichlorphenol		<0.005	mg/L	0.005	03/16/99	5609	0115
2,4,5-Trichlorophenol		<0.005	mg/L	0.005	03/16/99	5609	0115
2,4,6-Trichlorophenol		<0.005	mg/L	0.005	03/16/99	5609	0115
2,4-Dinitro-o-cresol		<0.005	mg/L	0.005	03/16/99	5609	0115
2,4-dinitrophenols		<0.025	mg/L	0.025	03/16/99	5609	0115
Pentachlorophenol		<0.005	mg/L	0.005	03/16/99	5609	0115
Anthracene		<0.001	mg/L	0.001	03/16/99	5609	0115
3,4-Benzofluoranthene		<0.001	mg/L	0.001	03/16/99	5609	0115
Benzo(k)fluoranthene		<0.001	mg/L	0.001	03/16/99	5609	0115
Fluoranthene		<0.001	mg/L	0.001	03/16/99	5609	0115
Fluorene		<0.001	mg/L	0.001	03/16/99	5609	0115
Phenanthrene		<0.001	mg/L	0.001	03/16/99	5609	0115
Pyrene		<0.001	mg/L	0.001	03/16/99	5609	0115
Naphthalene		<0.001	mg/L	0.001	03/16/99	5609	0115
Benzo-a-pyrene		<0.001	mg/L	0.001	03/16/99	5609	0115
Phenol		<0.001	mg/L	0.001	03/16/99	5609	0115
2-Chlorophenol		<0.005	mg/L	0.005	03/16/99	5609	0115
2-Methyphenol		<0.001	mg/L	0.001	03/16/99	5609	0115
3-Methyphenol		<0.001	mg/L	0.001	03/16/99	5609	0115
4-Methyphenol		<0.001	mg/L	0.001	03/16/99	5609	0115
2-Nitrophenol		<0.005	mg/L	0.005	03/16/99	5609	0115
2,4-Dimethylphenol		<0.005	mg/L	0.005	03/16/99	5609	0115
2,4-dichlorphenol		<0.005	mg/L	0.005	03/16/99	5609	0115
4-Chloro-3-methylphenol		<0.005	mg/L	0.005	03/16/99	5609	0115
Acenaphthylene		<0.001	mg/L	0.001	03/16/99	5609	0115
Acenaphthene		<0.001	mg/L	0.001	03/16/99	5609	0115
4-Nitrophenol		<0.005	mg/L	0.005	03/16/99	5609	0115
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	0.005	03/16/99	5609	0115
Benz(a)anathracene		<0.001	mg/L	0.001	03/16/99	5609	0115
Chrysene		<0.001	mg/L	0.001	03/16/99	5609	0115
Indeno-{1,2,3-cd}pyrene		<0.001	mg/L	0.001	03/16/99	5609	0115
Dibenz{a,h}anathraene		<0.001	mg/L	0.001	03/16/99	5609	0115
Benzo{g,h,i}perylene		<0.001	mg/L	0.001	03/16/99	5609	0115
Surr. 2-Fluorophenol		37	%	21-100	03/16/99	5609	0115
Surr. Phenol-d6		26	%	10-94	03/16/99	5609	0115
Surr. Nitrobenzene-d5		63	%	33-114	03/16/99	5609	0115
Surr. 2-Fluorobiphenyl		61	%	43-116	03/16/99	5609	0115
Surr. 2,4,6-Tribromophenol		63	%	10-123	03/16/99	5609	0115
Surr. Terphenyl-d14		73	%	33-141	03/16/99	5609	0115

Quality Control Report
Blanks

Order ID Number: 9902000295 Date: 3/18/99
Project Name: Shell Westgate Page #15
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
2,6-dichlorphenol		<0.005	mg/L	0.005	02/24/99	5609	5752
2,4,5-Trichlorophenol		<0.005	mg/L	0.005	02/24/99	5609	5752
2,4,6-Trichlorophenol		<0.005	mg/L	0.005	02/24/99	5609	5752
2,4-Dinitro-o-cresol		<0.005	mg/L	0.005	02/24/99	5609	5752
2,4-dinitrophenols		<0.025	mg/L	0.025	02/24/99	5609	5752
Pentachlorophenol		<0.005	mg/L	0.005	02/24/99	5609	5752
Anthracene		<0.001	mg/L	0.001	02/24/99	5609	5752
3,4-Benzofluoranthene		<0.001	mg/L	0.001	02/24/99	5609	5752
Benzo(k)fluoranthene		<0.001	mg/L	0.001	02/24/99	5609	5752
Fluoranthene		<0.001	mg/L	0.001	02/24/99	5609	5752
Fluorene		<0.001	mg/L	0.001	02/24/99	5609	5752
Phenanthrene		<0.001	mg/L	0.001	02/24/99	5609	5752
Pyrene		<0.001	mg/L	0.001	02/24/99	5609	5752
Naphthalene		<0.001	mg/L	0.001	02/24/99	5609	5752
Benzo-a-pyrene		<0.001	mg/L	0.001	02/24/99	5609	5752
Phenol		<0.001	mg/L	0.001	02/24/99	5609	5752
2-Chlorophenol		<0.005	mg/L	0.005	02/24/99	5609	5752
2-Methyphenol		<0.001	mg/L	0.001	02/24/99	5609	5752
3-Methyphenol		<0.001	mg/L	0.001	02/24/99	5609	5752
4-Methyphenol		<0.001	mg/L	0.001	02/24/99	5609	5752
2-Nitrophenol		<0.005	mg/L	0.005	02/24/99	5609	5752
2,4-Dimethylphenol		<0.005	mg/L	0.005	02/24/99	5609	5752
2,4-dichlorphenol		<0.005	mg/L	0.005	02/24/99	5609	5752
4-Chloro-3-methylphenol		<0.005	mg/L	0.005	02/24/99	5609	5752
Acenaphthylene		<0.001	mg/L	0.001	02/24/99	5609	5752
Acenaphthene		<0.001	mg/L	0.001	02/24/99	5609	5752
4-Nitrophenol		<0.005	mg/L	0.005	02/24/99	5609	5752
2,3,4,6-Tetrachlorophenol		<0.005	mg/L	0.005	02/24/99	5609	5752
Benz(a)anathracene		<0.001	mg/L	0.001	02/24/99	5609	5752
Chrysene		<0.001	mg/L	0.001	02/24/99	5609	5752
Indeno-{1,2,3-cd}pyrene		<0.001	mg/L	0.001	02/24/99	5609	5752
Dibenz{a,h}anathraene		<0.001	mg/L	0.001	02/24/99	5609	5752
Benzo{g,h,i}perylene		<0.001	mg/L	0.001	02/24/99	5609	5752
Surr. 2-Fluorophenol		42	%	21-100	02/24/99	5609	5752
Surr. Phenol-d6		31	%	10-94	02/24/99	5609	5752
Surr. Nitrobenzene-d5		64	%	33-114	02/24/99	5609	5752
Surr. 2-Fluorobiphenyl		53	%	43-116	02/24/99	5609	5752
Surr. 2,4,6-Tribromophenol		54	%	10-123	02/24/99	5609	5752
Surr. Terphenyl-d14		76	%	33-141	02/24/99	5609	5752

Quality Control Report
Blanks

Order ID Number: 9902000295
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/18/99
Page #16

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Arsenic		<0.10	mg/L	0.10	02/18/99	0108	0102
Barium		<0.10	mg/L	0.10	02/18/99	0108	0102
Cadmium		<0.1	mg/L	0.1	02/18/99	0108	0102
Chromium		<0.05	mg/L	0.05	02/18/99	0108	0102
Lead		<0.05	mg/L	0.05	02/18/99	0108	0102
Total Mercury		<0.0002	mg/L	0.0002	02/23/99	0107	0101
Selenium		<0.05	mg/L	0.05	02/18/99	0108	0102
Silver		<0.05	mg/L	0.05	02/18/99	0108	0102
Uranium		<0.10	mg/L	0.10	02/18/99	0108	0102
Copper		<0.10	mg/L	0.10	02/18/99	0108	0102
Iron		<0.10	mg/L	0.10	02/18/99	0108	0102
Manganese		<0.10	mg/L	0.10	02/18/99	0108	0102
Zinc		<0.10	mg/L	0.10	02/18/99	0108	0102
Aluminum		<0.10	mg/L	0.10	02/18/99	0108	0102
Boron		<0.10	mg/L	0.10	02/18/99	0108	0102
Cobalt		<0.05	mg/L	0.05	02/18/99	0108	0102
Molybdenum		<0.10	mg/L	0.10	02/18/99	0108	0102
Nickel		<0.10	mg/L	0.10	02/18/99	0108	0102

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/18/99
Page #17

Order ID Number: 9902000295
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	111	111	02/24/99	5751
1,1-Dichloroethene		100	ug/L	94	94	02/24/99	5751
Chloroform		100	ug/L	100	100	02/24/99	5751
1,2-Dichloropropane		100	ug/L	103	103	02/24/99	5751
Toluene		100	ug/L	102	102	02/24/99	5751
Chlorobenzene		100	ug/L	104	104	02/24/99	5751
Ethylbenzene		100	ug/L	106	106	02/24/99	5751
Surr. Dibromofluoromethane		100	%	98	98	02/24/99	5751
Surr. Toluene-d8		100	%	108	108	02/24/99	5751
Surr. 4-Bromofluorobenzene		100	%	99	99	02/24/99	5751
Vinyl chloride		100	ug/L	118	118	02/27/99	5766
1,1-Dichloroethene		100	ug/L	85	85	02/27/99	5766
Chloroform		100	ug/L	100	100	02/27/99	5766
1,2-Dichloropropane		100	ug/L	106	106	02/27/99	5766
Toluene		100	ug/L	101	101	02/27/99	5766
Chlorobenzene		100	ug/L	105	105	02/27/99	5766
Ethylbenzene		100	ug/L	106	106	02/27/99	5766
Surr. Dibromofluoromethane		100	%	99	99	02/27/99	5766
Surr. Toluene-d8		100	%	112	112	02/27/99	5766
Surr. 4-Bromofluorobenzene		100	%	94	94	02/27/99	5766
Phenol		80	mg/L	82	102	03/16/99	0115
1,4-Dichlorobenzene		80	mg/L	81	101	03/16/99	0115
2-nitrophenol		80	mg/L	85	106	03/16/99	0115
2,4-Dichlorophenol		80	mg/L	84	105	03/16/99	0115
Hexachlorobutadiene		80	mg/L	81	101	03/16/99	0115
4-Chloro-3-methylphenol		80	mg/L	84	105	03/16/99	0115
2,4,6-Trichlorophenol		80	mg/L	81	101	03/16/99	0115
Acenaphthene		80	mg/L	81	101	03/16/99	0115
n-Nitrosodiphenylamine		80	mg/L	83	104	03/16/99	0115
Pentachlorophenol		80	mg/L	82	102	03/16/99	0115
Fluoranthene		80	mg/L	82	103	03/16/99	0115
Di-n-octylphthalate		80	mg/L	71	89	03/16/99	0115
Benzo(a)pyrene		80	mg/L	82	102	03/16/99	0115

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/18/99

Order ID Number: 9902000295
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Surr. 2-Fluorophenol		80	%	81	101	03/16/99	0115
Surr. Phenol-d6		80	%	82	102	03/16/99	0115
Surr. Nitroobenzene-d5		80	%	81	101	03/16/99	0115
Surr. 2-Fluorobiphenyl		80	%	80	100	03/16/99	0115
Surr. 2,4,6-Tribromophenol		80	%	85	106	03/16/99	0115
Surr. Terphenyl-d14		80	%	75	94	03/16/99	0115
Phenol		80	mg/L	80	100	02/24/99	5752
1,4-Dichlorobenzene		80	mg/L	76	95	02/24/99	5752
2-nitrophenol		80	mg/L	77	96	02/24/99	5752
2,4-Dichlorophenol		80	mg/L	76	95	02/24/99	5752
Hexachlorobutadiene		80	mg/L	74	93	02/24/99	5752
4-Chloro-3-methylphenol		80	mg/L	76	95	02/24/99	5752
2,4,6-Trichlorophenol		80	mg/L	76	95	02/24/99	5752
Acenaphthene		80	mg/L	75	94	02/24/99	5752
n-Nitrosodiphenylamine		80	mg/L	77	96	02/24/99	5752
Pentachlorophenol		80	mg/L	73	91	02/24/99	5752
Fluoranthene		80	mg/L	75	94	02/24/99	5752
Di-n-octylphthalate		80	mg/L	64	80	02/24/99	5752
Benzo(a)pyrene		80	mg/L	75	94	02/24/99	5752
Surr. 2-Fluorophenol		80	%	80	100	02/24/99	5752
Surr. Phenol-d6		80	%	80	100	02/24/99	5752
Surr. Nitroobenzene-d5		80	%	75	94	02/24/99	5752
Surr. 2-Fluorobiphenyl		80	%	75	94	02/24/99	5752
Surr. 2,4,6-Tribromophenol		80	%	75	94	02/24/99	5752
Surr. Terphenyl-d14		80	%	73	91	02/24/99	5752

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/18/99

Order ID Number: 9902000295
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Arsenic		1.0	mg/L	0.97	97	02/18/99	0102
Barium		1.0	mg/L	0.99	99	02/18/99	0102
Cadmium		1.0	mg/L	0.99	99	02/18/99	0102
Chromium		1.0	mg/L	0.98	98	02/18/99	0102
Lead		1.0	mg/L	0.98	98	02/18/99	0102
Total Mercury		0.0010	mg/L	0.0010	100	02/23/99	0101
Selenium		1.0	mg/L	0.98	98	02/18/99	0102
Silver		0.20	mg/L	0.19	95	02/18/99	0102
Uranium		1.0	mg/L	0.99	99	02/18/99	0102
Copper		1.0	mg/L	0.95	95	02/18/99	0102
Iron		1.0	mg/L	0.98	98	02/18/99	0102
Manganese		1.0	mg/L	0.99	99	02/18/99	0102
Zinc		1.0	mg/L	0.98	98	02/18/99	0102
Aluminum		1.0	mg/L	0.98	98	02/18/99	0102
Boron		1.0	mg/L	0.97	97	02/18/99	0102
Cobalt		1.0	mg/L	0.99	99	02/18/99	0102
Molybdenum		1.0	mg/L	0.96	96	02/18/99	0102
Nickel		1.0	mg/L	0.97	97	02/18/99	0102

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/18/99
Page #20

Order ID Number: 9902000295
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene		ug/L	<1	100	87	87	100	88	88	1	2/24/99		5751
Benzene		ug/L	<1	100	106	106	100	108	108	2	2/24/99		5751
Trichloroethene		ug/L	<1	100	106	106	100	107	107	1	2/24/99		5751
Toluene		ug/L	<1	100	104	104	100	105	105	1	2/24/99		5751
Chlorobenzene		ug/L	<1	100	108	108	100	110	110	2	2/24/99		5751
Surr. Dibromofluoromethane		%	99	100	100	100	100	101	101	1	2/24/99		5751
Surr. Toluene-d8		%	109	100	111	111	100	110	110	1	2/24/99		5751
Surr. 4-Bromofluorobenzene		%	97	100	97	97	100	98	98	1	2/24/99		5751
1,1-Dichloroethene		ug/L	<1	100	78	78	100	78	78	0	2/27/99		5766
[illegible]zene		ug/L	<1	100	101	101	100	106	106	5	2/27/99		5766
[illegible]hloroethene		ug/L	<1	100	102	102	100	108	108	6	2/27/99		5766
Toluene		ug/L	<1	100	102	102	100	108	108	6	2/27/99		5766
Chlorobenzene		ug/L	<1	100	105	105	100	108	108	3	2/27/99		5766
Surr. Dibromofluoromethane		%	100	100	102	102	100	101	101	1	2/27/99		5766
Surr. Toluene-d8		%	111	100	111	111	100	111	111	0	2/27/99		5766
Surr. 4-Bromofluorobenzene		%	94	100	95	95	100	93	93	2	2/27/99		5766
Phenol		mg/L	<0.001	100	38	38	100	37	37	3	3/16/99	5609	0115
2-Chlorophenol		mg/L	<0.005	100	78	78	100	76	76	3	3/16/99	5609	0115
1,4-Dichlorobenzene		mg/L	<0.001	100	65	65	100	63	63	2	3/16/99	5609	0115
n-Nitrosodi-n-propylamine		mg/L	<0.001	100	88	88	100	85	85	3	[illegible]6/99	5609	0115
1,2,4-trichlorobenzene		mg/L	<0.001	100	75	75	100	73	73	3	[illegible]99	5609	0115
4-Chloro-3-methylphenol		mg/L	<0.005	100	91	91	100	87	87	4	3/16/99	5609	0115
Acenaphthene		mg/L	<0.001	100	88	88	100	88	88	0	3/16/99	5609	0115
4-Nitrophenol		mg/L	<0.005	100	28	28	100	27	27	4	3/16/99	5609	0115
2,4-Dinitrotoluene		mg/L	<0.001	100	96	96	100	95	95	1	3/16/99	5609	0115
Pentachlorophenol		mg/L	<0.005	100	89	89	100	90	90	1	3/16/99	5609	0115
Pyrene		mg/L	<0.001	100	91	91	100	83	83	9	3/16/99	5609	0115
Surr. 2-Fluorophenol		%	39	100	48	48	100	46	46	4	3/16/99	5609	0115
Surr. Phenol-d6		%	26	100	34	34	100	33	33	3	3/16/99	5609	0115
Surr. Nitrobenzene-d5		%	68	100	76	76	100	76	76	0	3/16/99	5609	0115
Surr. 2-Fluorobiphenyl		%	56	100	62	62	100	64	64	3	3/16/99	5609	0115
Surr. 2,4,6-Tribromophenol		%	69	100	91	91	100	92	92	1	3/16/99	5609	0115
Surr. Terphenyl-d14		%	77	100	83	83	100	77	77	8	3/16/99	5609	0115

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/18/99
Page #21

Order ID Number: 9902000295
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	MS/MSD RPD	Date Analyzed	Prep Batch #	Run Batch #
Phenol		mg/L	<0.001	100	41	41	100	40	40	2	2/24/99	5609	5752
2-Chlorophenol		mg/L	<0.005	100	79	79	100	77	77	3	2/24/99	5609	5752
1,4-Dichlorobenzene		mg/L	<0.001	100	64	64	100	62	62	3	2/24/99	5609	5752
n-Nitrosodi-n-propylamine		mg/L	<0.001	100	88	88	100	87	87	1	2/24/99	5609	5752
1,2,4-trichlorobenzene		mg/L	<0.001	100	60	60	100	59	59	2	2/24/99	5609	5752
4-Chloro-3-methylphenol		mg/L	<0.005	100	68	68	100	66	66	3	2/24/99	5609	5752
Acenaphthene		mg/L	<0.001	100	81	81	100	79	79	3	2/24/99	5609	5752
4-Nitrophenol		mg/L	<0.005	100	30	30	100	35	35	15	2/24/99	5609	5752
2,4-Dinitrotoluene		mg/L	<0.001	100	93	93	100	95	95	2	2/24/99	5609	5752
Pentachlorophenol		mg/L	<0.005	100	68	68	100	82	82	19	2/24/99	5609	5752
yrene		mg/L	<0.001	100	68	68	100	66	66	3	2/24/99	5609	5752
Surr. 2-Fluorophenol		%	42	100	48	48	100	49	49	2	2/24/99	5609	5752
Surr. Phenol-d6		%	31	100	37	37	100	37	37	0	2/24/99	5609	5752
Surr. Nitrobenzene-d5		%	64	100	71	71	100	70	70	1	2/24/99	5609	5752
Surr. 2-Fluorobiphenyl		%	53	100	62	62	100	62	62	0	2/24/99	5609	5752
Surr. 2,4,6-Tribromophenol		%	54	100	92	92	100	93	93	1	2/24/99	5609	5752
Surr. Terphenyl-d14		%	76	100	73	73	100	71	71	3	2/24/99	5609	5752
Arsenic		mg/L	<0.10	2.0	2.1	105	2.0	2.0	100	5	2/18/99	0108	0102
Barium		mg/L	0.30	2.0	2.3	100	2.0	2.3	100	0	2/18/99	0108	0102
Cadmium		mg/L	<0.01	2.0	2.0	100	2.0	2.0	100	0	2/18/99	0108	0102
Chromium		mg/L	<0.05	2.0	2.0	100	2.0	2.0	100	0	2/18/99	0108	0102
Lead		mg/L	<0.05	2.0	2.0	100	2.0	2.0	100	0	2/18/99	0108	0102
Total Mercury		mg/L	< 0.0002	0.0010	0.0011	110	0.0010	0.0012	120	9	2/23/99	0107	0101
Selenium		mg/L	<0.05	2.0	2.1	105	2.0	2.0	100	5	2/18/99	0108	0102
Silver		mg/L	<0.05	0.50	0.48	96	0.50	0.52	104	8	2/18/99	0108	0102
Uranium		mg/L	<0.10	2.0	2.0	100	2.0	2.1	105	5	2/18/99	0108	0102
Copper		mg/L	<0.10	2.0	2.0	100	2.0	2.0	100	0	2/18/99	0108	0102
Iron		mg/L	0.29	2.0	2.4	106	2.0	2.4	106	0	2/18/99	0108	0102
Manganese		mg/L	0.34	2.0	2.4	103	2.0	2.5	108	5	2/18/99	0108	0102
Zinc		mg/L	<0.10	2.0	2.0	100	2.0	2.1	105	5	2/18/99	0108	0102
Aluminum		mg/L	<0.10	2.0	2.0	100	2.0	2.0	100	0	2/18/99	0108	0102
Boron		mg/L	0.25	2.0	2.2	98	2.0	2.3	103	5	2/18/99	0108	0102
Cobalt		mg/L	<0.05	2.0	2.0	100	2.0	2.0	100	0	2/18/99	0108	0102
Molybdenum		mg/L	<0.10	0.20	0.20	100	0.20	0.20	100	0	2/18/99	0108	0102
Nickel		mg/L	0.25	2.0	2.0	88	2.0	2.0	88	0	2/18/99	0108	0102

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID #_____

Company Name: BBC International, Inc. Phone #: 505 397-6388

Address: (Street, City, Zip) 1324 W. Marland Hobbs NM 88240 Fax #: 505 397-0397

Contact Person: Clint P. Bronson

Invoice to: (If different from above) Shell E&P Technology Co Attn: Wayne Hamilton

Project #: Project Name: Shell Westgate

Project Location: Hobbs, NM Sampler Signature: Shawn E Hall

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
119137	GMW5	5	500ml	✓					✓	✓		2/16/99	3:50
119138	GMW6	4	Voa	✓				✓		✓		2/16/99	3:30
	GMW6	2	Hr	✓						✓		2/16/99	3:30
	GMW6	1	500ml	✓					✓	✓		2/16/99	3:00
39	Trip Blanks	2	Voa	✓						✓		2/16/99	

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Metals				Turn Around Time if different from standard	Hold
										BTEX					✓					
										✓										
											✓									
															✓					
										✓										

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Shawn E Hall	2/16/99	4:50			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: Vicki Wrather	Date: 2-18-99	Time: 9:30

LAB USE ONLY
Intact (Y) / N
Headspace Y / N
Temp 4 °
Log-in Review MB

REMARKS:

Carrier # Bus 902 071982 9

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

119134-39

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
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1 (800) 378-1296

TraceAnalysis, Inc.

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El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 295

Company Name: BBC International, Inc. Phone #: 505 397-6253

Address: (Street, City, Zip) 1324 W. Marland, Hobbs, NM 88240 Fax #: 505 397-0397

Contact Person: Cliff P. Brunson

Invoice to: (If different from above) Shell E&P Technology Co Attn: Wayne Hamilton

Project #: Project Name: Shell Westgate

Project Location: Hobbs NM Sampler Signature: Shawn E. Hall

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
119134	Gmw 1	4	VOAs	✓				✓		✓		2/16/99	2:20
	Gmw 1	2	Hr	✓						✓			2:20
	Gmw 1	1	500ml	✓					✓	✓			2:20
119135	Gmw 2	4	VOA	✓				✓		✓			1:30
	Gmw 2	2	Hr	✓						✓			1:30
	Gmw 2	1	500ml	✓					✓	✓			1:30
119136	Gmw 3B	4	VOA	✓				✓		✓			2:50
	Gmw 3B	2	Hr	✓						✓			2:50
	Gmw 3B	1	500ml	✓					✓	✓			2:50
119137	Gmw 5	4	VOA	✓				✓		✓			3:50
	Gmw 5	2	Hr	✓						✓			3:50

ANALYSIS REQUEST

(Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	metals			Turn Around Time if different from standard	Hold
										BTEX ✓					✓				
										✓	✓								
											✓				✓				
										✓									
											✓								
															✓				
										✓									
											✓								
															✓				
										✓									
											✓								

Relinquished by: Shawn E Hall Date: 2/16/99 Time: 4:50

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received at Laboratory by: Vicki Wyndham Date: 2-18-99 Time: 9:30

LAB USE ONLY

Intact Y / N

Headspace Y / N

Temp 4 °

Log-in Review

REMARKS:

Carrier # Bus 902 071 982 9

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/19/99
Page: # 1

Project Name: Shell Westgate
Project Location: Hobbs, NM
Order ID Number: 9903000252

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
119967	TMW 5	Water	03/01/99	11:00 a.m.	03/02/99
119968	Trip Blank	Water			

This Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch (es) in which your sample (s) were analyzed.

This report shall not be reproduced except in its entirety, without written approval of the laboratory.

These results represent only the samples received in the laboratory.

This report consists of a total of 16 pages.

Dr. Blair Leftwich
Director

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/19/99

Order ID Number: 9903000252
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: TMW 5 Sample Number: 119967

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	5
Acrylonitrile		<5	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	5
Benzene		<1	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
Carbon tetrachloride		<1	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
Chlorobenzene		<1	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
1,2-dichloroethane		<1	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
1,1,1-trichloroethane		<1	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
1,1,2-trichloroethane		<1	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
Chloroform		<1	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
Dichlorobenzene		<2	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	2
1,1-dichloroethylene		<1	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
Dichloropropenes		<1	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
Ethylbenzene		2.5	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
Bromodichloromethane		<1	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
Bromomethane		<5	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	5
Chloromethane		<1	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
Dichlorodifluoromethane		<1	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
Dichloromethane		<5	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	5
Trichlorofluoromethane		<1	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
Tetrachloroethylene		<1	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
Toluene		<1	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
Trichloroethylene		<1	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
Vinyl chloride		<2	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	2
m,p-xylene		2.3	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
o-xylene		<1	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
1,1-dichloroethane		<1	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
Ethylene dibromide		<1	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	1
Methylene chloride		<5	ug/L	S-8260B	3/3/99	3/3/99	JG		0085	5
Surr. Dibromofluoromethane		104	%	S-8260B	3/3/99	3/3/99	JG		0085	72-130
Surr. Toluene-d8		100	%	S-8260B	3/3/99	3/3/99	JG		0085	77-127
Surr. 4-Bromofluorobenzene		101	%	S-8260B	3/3/99	3/3/99	JG		0085	72-131

Order ID Number: 9903000252 Date: 3/19/99 Page # 3
Field Code: TMW 5 Sample Number: 119967

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Benzidine		<0.01	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.01
Hexachlorobenzene		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
Pentachlorobenzene		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
1,2,4,5-tetrachlorobenzene		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
Hexachloroethane		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
2,4-dichlorphenol		<0.005	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.005
2,4,5-trichlorophenol		<0.005	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.005
2,4,6-trichlorophenol		<0.005	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.005
bis (2-chloroethyl) ether		<0.005	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.005
bis (2-chloroisopropyl) ether		<0.005	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.005
bis (chloromethyl) ether		<0.005	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.005
3,3-dichlorobenzidine		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
2,4-dinitrotoluene		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
Diphenylhydrazine		<0.005	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.005
Hexachlorobutadiene		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
Hexachlorocyclopentadiene		<0.005	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.005
Isophorone		<0.005	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.005
Nitrobenzene		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
2,4-dinitro-o-cresol		<0.005	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.005
2,4-dinitrophenols		<0.025	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.025
n-nitrosodiethylamine		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
N-nitrosodimethylamine		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
N-nitrosodibutylamine		<0.005	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.005
N-nitrosodiphenylamine		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
N-nitrosopyrrolidine		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
Pentachlorophenol		<0.005	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.005
Dibutyl phthalate		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
di-2-ethylhexyl phthalate		<0.005	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.005
Diethyl phthalate		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
Dimethyl phthalate		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
Anthracene		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
3,4-Benzofluoranthene		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
Benzo(k)fluoranthene		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
Fluoranthene		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
Fluorene		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
Phenanthrene		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
Pyrene		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
Naphthalene		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
1-methylnaphthalene		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
2-methylnaphthalene		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
Benzo-a-pyrene		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
Phenol		<0.001	mg/L	8270C	3/4/99	3/4/99	DG	0093	0087	0.001
Surr. 2-Fluorophenol		36	%	8270C	3/4/99	3/4/99	DG	0093	0087	21-100
Surr. Phenol-d6		21	%	8270C	3/4/99	3/4/99	DG	0093	0087	10-94
Surr. Nitrobenzene-d5		73	%	8270C	3/4/99	3/4/99	DG	0093	0087	35-114
Surr. 2-Fluorobiphenyl		78	%	8270C	3/4/99	3/4/99	DG	0093	0087	43-116
Surr. 2,4,6-Tribromophenol		89	%	8270C	3/4/99	3/4/99	DG	0093	0087	10-123
Surr. Terphenyl-d14		75	%	8270C	3/4/99	3/4/99	DG	0093	0087	33-141

Analytical Results Report

Order ID Number: 9903000252
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/19/99
Page # 4

Field Code: TMW 5

Sample Number: 119967

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Aldrin		<0.02	ug/L	8081	3/3/99	3/10/99	SH			0.02
Chlordane		<0.10	ug/L	8081	3/3/99	3/10/99	SH			0.10
DDT		<0.03	ug/L	8081	3/3/99	3/10/99	SH			0.03
Dieldrin		<0.02	ug/L	8081	3/3/99	3/10/99	SH			0.02
Endosulfan		<0.03	ug/L	8081	3/3/99	3/10/99	SH			0.03
Endrin		<0.05	ug/L	8081	3/3/99	3/10/99	SH			0.05
Heptachlor		<0.03	ug/L	8081	3/3/99	3/10/99	SH			0.03
PCB's		<0.001	mg/L	8080	3/4/99	3/5/99	SO	0094	0088	0.001
Arsenic		<0.10	mg/L	6010B	3/2/99	3/4/99	RR	0095	0089	0.10
Barium		0.10	mg/L	6010B	3/2/99	3/4/99	RR	0095	0089	0.10
Cadmium		<0.01	mg/L	6010B	3/2/99	3/4/99	RR	0095	0089	0.01
Chromium		<0.05	mg/L	6010B	3/2/99	3/4/99	RR	0095	0089	0 05
Lead		<0.05	mg/L	6010B	3/2/99	3/4/99	RR	0095	0089	0 05
Total Mercury		<0.0002	mg/L	7470A	3/3/99	3/4/99	RR	0096	0090	0.0002
Selenium		<0.05	mg/L	6010B	3/2/99	3/4/99	RR	0095	0089	0.05
Silver		<0.05	mg/L	6010B	3/2/99	3/4/99	RR	0095	0089	0.05
Uranium		<0.10	mg/L	6010B	3/2/99	3/4/99	RR	0095	0089	0.10
Copper		<0.10	mg/L	6010B	3/2/99	3/4/99	RR	0095	0089	0.10
Iron		<0.10	mg/L	6010B	3/2/99	3/4/99	RR	0095	0089	0.10
Manganese		0.19	mg/L	6010B	3/2/99	3/4/99	RR	0095	0089	0.10
Zinc		<0.10	mg/L	6010B	3/2/99	3/4/99	RR	0095	0089	0.10
Aluminum		<0.10	mg/L	6010B	3/2/99	3/4/99	RR	0095	0089	0.10
Boron		0.44	mg/L	6010B	3/2/99	3/4/99	RR	0095	0089	0.10
Cobalt		<0.05	mg/L	6010B	3/2/99	3/4/99	RR	0095	0089	0.05
Molybdenum		<0.10	mg/L	6010B	3/2/99	3/4/99	RR	0095	0089	0.10
Nickel		<0.10	mg/L	6010B	3/2/99	3/4/99	RR	0095	0089	0.10
Cyanide		<0.01	mg/L	SM 4500 CN-C,E	3/9/99	3/9/99	MD	0097	0091	0.01
Fluoride		2.1	mg/L	300.0	3/2/99	3/2/99	JS	0098	0092	0.1
Nitrate		4.5	mg/L	300.0	3/2/99	3/2/99	JS	0098	0092	0.2
Chloride		180	mg/L	300.0	3/2/99	3/2/99	JS	0098	0092	0.5
Sulfate		170	mg/L	300.0	3/2/99	3/2/99	JS	0098	0092	0.5
TDS		1,100	mg/L	160.1	3/2/99	3/2/99	SA	0100	0093	10
pH		7.0	s.u.	150.1	3/2/99	3/2/99	RS	0101	0094	---
TRPHC		0.820	mg/L	418.1	3/2/99	3/3/99	MF	5613	5757	0.5
Total Phenol		<0.07	mg/L	SM 5530 A,D	3/5/99	3/5/99	MD	0104	0096	0.07
Total Radium		1.95	pCi/L	901.1M		3/10/99	KK			

Analytical Results Report

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/19/99
Page #5

Order ID Number: 9903000252
Project Name: Shell Westgate
Project Location: Hobbs, NM

Field Code: Trip Blank

Sample Number: 119968

Parameter	Flag	Results	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	Run Batch #	Reporting Limit
Acrolein		<5	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	5
Acrylonitrile		<5	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	5
Benzene		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
Carbon tetrachloride		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
Chlorobenzene		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
1,2-dichloroethane		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
1,1,2,2-tetrachloroethane		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
1,1,1-trichloroethane		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
1,1,2-trichloroethane		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
1,1,2-trichloroethylene		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
Chloroform		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
Dichlorobenzene		<2	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	2
1,1-dichloroethylene		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
Dichloropropenes		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
Ethylbenzene		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
Bromodichloromethane		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
Bromomethane		<5	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	5
Chloromethane		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
Dichlorodifluoromethane		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
Dichloromethane		<5	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	5
Trichlorofluoromethane		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
Tetrachloroethylene		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
Toluene		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
Trichloroethylene		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
Vinyl chloride		<2	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	2
m,p-xylene		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
o-xylene		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
1,1-dichloroethane		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
Ethylene dibromide		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
cis-1,2-dichlorethylene		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
trans-1,2-dichloroethylene		<1	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	1
Methylene chloride		<5	ug/L	S-8260B	3/11/99	3/11/99	JG		0086	5
Surr. Dibromofluoromethane		112	%	S-8260B	3/11/99	3/11/99	JG		0086	72-130
Surr. Toluene-d8		99	%	S-8260B	3/11/99	3/11/99	JG		0086	77-127
Surr. 4-Bromofluorobenzene		106	%	S-8260B	3/11/99	3/11/99	JG		0086	72-131

Quality Control Report
Blanks

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/19/99
Page #6

Order ID Number: 9903000252
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Result	Units	Limit	Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	03/03/99		0085
Acrylonitrile		<5	ug/L	5	03/03/99		0085
Benzene		<1	ug/L	1	03/03/99		0085
Carbon tetrachloride		<1	ug/L	1	03/03/99		0085
Chlorobenzene		<1	ug/L	1	03/03/99		0085
1,2-dichloroethane		<1	ug/L	1	03/03/99		0085
1,1,2,2-tetrachloroethane		<1	ug/L	1	03/03/99		0085
1,1,1-trichloroethane		<1	ug/L	1	03/03/99		0085
1,1,2-trichloroethane		<1	ug/L	1	03/03/99		0085
1,1,2-trichloroethylene		<1	ug/L	1	03/03/99		0085
Chloroform		<1	ug/L	1	03/03/99		0085
Dichlorobenzene		<2	ug/L	2	03/03/99		0085
[illegible]-dichloroethylene		<1	ug/L	1	03/03/99		0085
[illegible]chloropropenes		<1	ug/L	1	03/03/99		0085
Ethylbenzene		<1	ug/L	1	03/03/99		0085
Bromodichloromethane		<1	ug/L	1	03/03/99		0085
Bromomethane		<5	ug/L	5	03/03/99		0085
Chloromethane		<1	ug/L	1	03/03/99		0085
Dichlorodifluoromethane		<1	ug/L	1	03/03/99		0085
Dichloromethane		<5	ug/L	5	03/03/99		0085
Trichlorofluoromethane		<1	ug/L	1	03/03/99		0085
Tetrachloroethylene		<1	ug/L	1	03/03/99		0085
Toluene		<1	ug/L	1	03/03/99		0085
Trichloroethylene		<1	ug/L	1	03/03/99		0085
Vinyl chloride		<2	ug/L	2	03/03/99		0085
m,p-xylene		<1	ug/L	1	03/03/99		0085
o-xylene		<1	ug/L	1	03/03/99		0085
1,1-dichloroethane		<1	ug/L	1	03/03/99		0085
Ethylene dibromide		<1	ug/L	1	03/03/99		0085
cis-1,2-dichlorethylene		<1	ug/L	1	03/03/99		0085
trans-1,2-dichloroethylene		<1	ug/L	1	03/03/99		0085
Methylene chloride		<5	ug/L	5	03/03/99		0085
Surr. Dibromofluoromethane		104	%	72-130	03/03/99		0085
Surr. Toluene-d8		100	%	77-127	03/03/99		0085
Surr. 4-Bromofluorobenzene		102	%	72-131	03/03/99		0085

Quality Control Report
Blanks

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/19/99
Page #7

Order ID Number: 9903000252
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Result	Units	Reporting Limit	Analyzed	Prep Batch #	Run Batch #
Acrolein		<5	ug/L	5	03/11/99		0086
Acrylonitrile		<5	ug/L	5	03/11/99		0086
Benzene		<1	ug/L	1	03/11/99		0086
Carbon tetrachloride		<1	ug/L	1	03/11/99		0086
Chlorobenzene		<1	ug/L	1	03/11/99		0086
1,2-dichloroethane		<1	ug/L	1	03/11/99		0086
1,1,2,2-tetrachloroethane		<1	ug/L	1	03/11/99		0086
1,1,1-trichloroethane		<1	ug/L	1	03/11/99		0086
1,1,2-trichloroethane		<1	ug/L	1	03/11/99		0086
1,1,2-trichloroethylene		<1	ug/L	1	03/11/99		0086
Chloroform		<1	ug/L	1	03/11/99		0086
Dichlorobenzene		<2	ug/L	2	03/11/99		0086
1,1-dichloroethylene		<1	ug/L	1	03/11/99		0086
cis-1,3-dichloropropenes		<1	ug/L	1	03/11/99		0086
Ethylbenzene		<1	ug/L	1	03/11/99		0086
Bromodichloromethane		<1	ug/L	1	03/11/99		0086
Bromomethane		<5	ug/L	5	03/11/99		0086
Chloromethane		<1	ug/L	1	03/11/99		0086
Dichlorodifluoromethane		<1	ug/L	1	03/11/99		0086
Dichloromethane		<5	ug/L	5	03/11/99		0086
Trichlorofluoromethane		<1	ug/L	1	03/11/99		0086
Tetrachloroethylene		<1	ug/L	1	03/11/99		0086
Toluene		<1	ug/L	1	03/11/99		0086
Trichloroethylene		<1	ug/L	1	03/11/99		0086
Vinyl chloride		<2	ug/L	2	03/11/99		0086
m,p-xylene		<1	ug/L	1	03/11/99		0086
o-xylene		<1	ug/L	1	03/11/99		0086
1,1-dichloroethane		<1	ug/L	1	03/11/99		0086
Ethylene dibromide		<1	ug/L	1	03/11/99		0086
cis-1,2-dichlorethylene		<1	ug/L	1	03/11/99		0086
trans-1,2-dichloroethylene		<1	ug/L	1	03/11/99		0086
Methylene chloride		<5	ug/L	5	03/11/99		0086
Surr. Dibromofluoromethane		107	%	72-130	03/11/99		0086
Surr. Toluene-d8		101	%	77-127	03/11/99		0086
Surr. 4-Bromofluorobenzene		104	%	72-131	03/11/99		0086

Order ID Number: 9903000252 Date: 3/19/99

Project Name: Shell Westgate Page #8

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
Benzidine		<0.01	mg/L	0.01	3/4/99	0093	0087
Hexachlorobenzene		<0.001	mg/L	0.001	3/4/99	0093	0087
Pentachlorobenzene		<0.001	mg/L	0.001	3/4/99	0093	0087
1,2,4,5-tetrachlorobenzene		<0.001	mg/L	0.001	3/4/99	0093	0087
Hexachloroethane		<0.001	mg/L	0.001	3/4/99	0093	0087
2,4-dichlorphenol		<0.005	mg/L	0.005	3/4/99	0093	0087
2,4,5-trichlorophenol		<0.005	mg/L	0.005	3/4/99	0093	0087
2,4,6-trichlorophenol		<0.005	mg/L	0.005	3/4/99	0093	0087
bis (2-chloroethyl) ether		<0.005	mg/L	0.005	3/4/99	0093	0087
bis (2-chloroisopropyl) ether		<0.005	mg/L	0.005	3/4/99	0093	0087
bis (chloromethyl) ether		<0.005	mg/L	0.005	3/4/99	0093	0087
3,3-dichlorobenzidine		<0.001	mg/L	0.001	3/4/99	0093	0087
2,4-dinitrotoluene		<0.001	mg/L	0.001	3/4/99	0093	0087
Diphenylhydrazine		<0.005	mg/L	0.005	3/4/99	0093	0087
Hexachlorobutadiene		<0.001	mg/L	0.001	3/4/99	0093	0087
Hexachlorocyclopentadiene		<0.005	mg/L	0.005	3/4/99	0093	0087
Isophorone		<0.005	mg/L	0.005	3/4/99	0093	0087
Nitrobenzene		<0.001	mg/L	0.001	3/4/99	0093	0087
2,4-dinitro-o-cresol		<0.005	mg/L	0.005	3/4/99	0093	0087
2,4-dinitrophenols		<0.025	mg/L	0.005	3/4/99	0093	0087
n-nitrosodiethylamine		<0.001	mg/L	0.001	3/4/99	0093	0087
N-nitrosodimethylamine		<0.001	mg/L	0.001	3/4/99	0093	0087
N-nitrosodibutylamine		<0.005	mg/L	0.005	3/4/99	0093	0087
N-nitrosodiphenylamine		<0.001	mg/L	0.001	3/4/99	0093	0087
N-nitrosopyrrolidine		<0.001	mg/L	0.001	3/4/99	0093	0087
Pentachlorophenol		<0.005	mg/L	0.005	3/4/99	0093	0087
Dibutyl phthalate		<0.001	mg/L	0.001	3/4/99	0093	0087
di-2-ethylhexyl phthalate		<0.005	mg/L	0.005	3/4/99	0093	0087
Diethyl phthalate		<0.001	mg/L	0.001	3/4/99	0093	0087
Dimethyl phthalate		<0.001	mg/L	0.001	3/4/99	0093	0087
Anthracene		<0.001	mg/L	0.001	3/4/99	0093	0087
3,4-Benzofluoranthene		<0.001	mg/L	0.001	3/4/99	0093	0087
Benzo(k)fluoranthene		<0.001	mg/L	0.001	3/4/99	0093	0087
Fluoranthene		<0.001	mg/L	0.001	3/4/99	0093	0087
Fluorene		<0.001	mg/L	0.001	3/4/99	0093	0087
Phenanthrene		<0.001	mg/L	0.001	3/4/99	0093	0087
Pyrene		<0.001	mg/L	0.001	3/4/99	0093	0087
Naphthalene		<0.001	mg/L	0.001	3/4/99	0093	0087
1-methylnaphthalene		<0.001	mg/L	0.001	3/4/99	0093	0087
2-methylnaphthalene		<0.001	mg/L	0.001	3/4/99	0093	0087
Benzo-a-pyrene		<0.001	mg/L	0.001	3/4/99	0093	0087
Phenol		<0.001	mg/L	0.001	3/4/99	0093	0087
Surr. 2-Fluorophenol		37	%	21-100	3/4/99	0093	0087
Surr. Phenol-d6		24	%	10-94	3/4/99	0093	0087
Surr. Nitrobenzene-d5		62	%	35-114	3/4/99	0093	0087
Surr. 2-Fluorobiphenyl		61	%	43-116	3/4/99	0093	0087
Surr. 2,4,6-Tribromophenol		71	%	10-123	3/4/99	0093	0087
Surr. Terphenyl-d14		94	%	33-141	3/4/99	0093	0087

Quality Control Report
Blanks

Order ID Number: 9903000252 Date: 3/19/99
Project Name: Shell Westgate Page #9
Project Location: Hobbs, NM

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	Run Batch #
PCB		<0.001	mg/L	0.001	03/05/99	0094	0088
Arsenic		<0.10	mg/L	0.10	03/04/99	0095	0089
Barium		<0.10	mg/L	0.10	03/04/99	0095	0089
Cadmium		<0.01	mg/L	0.01	03/04/99	0095	0089
Chromium		<0.05	mg/L	0.05	03/04/99	0095	0089
Lead		<0.05	mg/L	0.05	03/04/99	0095	0089
Total Mercury		<0.0002	mg/L	0.10	03/04/99	0096	0090
Selenium		<0.05	mg/L	0.05	03/04/99	0095	0089
Silver		<0.05	mg/L	0.05	03/04/99	0095	0089
Uranium		<0.10	mg/L	0.10	03/04/99	0095	0089
Copper		<0.10	mg/L	0.10	03/04/99	0095	0089
Iron		<0.10	mg/L	0.10	03/04/99	0095	0089
Manganese		<0.10	mg/L	0.10	03/04/99	0095	0089
Zinc		<0.10	mg/L	0.10	03/04/99	0095	0089
Aluminum		<0.10	mg/L	0.10	03/04/99	0095	0089
Boron		<0.10	mg/L	0.10	03/04/99	0095	0089
Cobalt		<0.05	mg/L	0.05	03/04/99	0095	0089
Molybdenum		<0.10	mg/L	0.10	03/04/99	0095	0089
Nickel		<0.10	mg/L	0.10	03/04/99	0095	0089
Cyanide		<0.01	mg/L	0.01	03/09/99	0097	0091
Fluoride		<0.1	mg/L	0.1	03/02/99	0098	0092
Nitrate		<0.2	mg/L	0.2	03/02/99	0098	0092
Chloride		<0.5	mg/L	0.5	03/02/99	0098	0092
Sulfate		<0.5	mg/L	0.5	03/02/99	0098	0092
Total Dissolved Solids		<10	mg/L	10	03/02/99	0100	0093
TRPHC		<0.500	mg/L	0.5	03/03/99	5613	5757
Total Phenols		<0.07	mg/L	0.07	03/05/99	0104	0096

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/19/99
Page #10

Order ID Number: 9903000252

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
Vinyl chloride		100	ug/L	95	95	03/03/99	0085
1,1-Dichloroethene		100	ug/L	96	96	03/03/99	0085
Chloroform		100	ug/L	97	97	03/03/99	0085
1,2-Dichloropropane		100	ug/L	98	98	03/03/99	0085
Toluene		100	ug/L	96	96	03/03/99	0085
Chlorobenzene		100	ug/L	93	93	03/03/99	0085
Ethylbenzene		100	ug/L	95	95	03/03/99	0085
Surr. Dibromofluoromethane		100	ug/L	101	101	03/03/99	0085
Surr. Toluene-d8		100	ug/L	99	99	03/03/99	0085
Surr. 4-Bromofluorobenzene		100	ug/L	102	102	03/03/99	0085
Vinyl chloride		100	ug/L	91	91	03/11/99	0086
1,1-Dichloroethene		100	ug/L	89	89	03/11/99	0086
Chloroform		100	ug/L	95	95	03/11/99	0086
1,2-Dichloropropane		100	ug/L	94	94	03/11/99	0086
Toluene		100	ug/L	92	92	03/11/99	0086
Chlorobenzene		100	ug/L	91	91	03/11/99	0086
Ethylbenzene		100	ug/L	94	94	03/11/99	0086
Surr. Dibromofluoromethane		100	ug/L	103	103	03/11/99	0086
Surr. Toluene-d8		100	ug/L	100	100	03/11/99	0086
Surr. 4-Bromofluorobenzene		100	ug/L	105	105	03/11/99	0086
Phenol		80	mg/L	71	89	03/04/99	0087
1,4-Dichlorobenzene		80	mg/L	73	91	03/04/99	0087
2-nitrophenol		80	mg/L	88	110	03/04/99	0087
2,4-Dichlorophenol		80	mg/L	80	100	03/04/99	0087
Hexachlorobutadiene		80	mg/L	72	90	03/04/99	0087
4-Chloro-3-methylphenol		80	mg/L	78	98	03/04/99	0087
2,4,6-Trichlorophenol		80	mg/L	84	105	03/04/99	0087
Acenaphthene		80	mg/L	72	90	03/04/99	0087
n-Nitrosodiphenylamine		80	mg/L	74	93	03/04/99	0087
Pentachlorophenol		80	mg/L	79	99	03/04/99	0087
Fluoranthene		80	mg/L	81	101	03/04/99	0087
Di-n-octylphthalate		80	mg/L	72	90	03/04/99	0087
Benzo(a)pyrene		80	mg/L	77	96	03/04/99	0087
Surr. 2-Fluorophenol		80	mg/L	79	99	03/04/99	0087
Surr. Phenol-d6		80	mg/L	80	100	03/04/99	0087
Surr. Nitroobenzene-d5		80	mg/L	76	95	03/04/99	0087
Surr. 2-Fluorobiphenyl		80	mg/L	77	96	03/04/99	0087
Surr. 2,4,6-Tribromophenol		80	mg/L	81	101	03/04/99	0087
Surr. Terphenyl-d14		80	mg/L	67	84	03/04/99	0087

Quality Control Report
Continuing Calibration Verification Standard

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/19/99
Page #11

Order ID Number: 9903000252
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	CCVS TRUE Concentration	Units	CCVS Found Concentration	CCVS Percent Recovery	Date Analyzed	Run Batch #
PCB's		0.40	mg/L	0.39	98	03/05/99	0088
Arsenic		1.0	mg/L	0.96	96	03/04/99	0089
Barium		1.0	mg/L	0.98	98	03/04/99	0089
Cadmium		1.0	mg/L	0.98	98	03/04/99	0089
Chromium		1.0	mg/L	0.98	98	03/04/99	0089
Lead		1.0	mg/L	0.97	97	03/04/99	0089
Total Mercury		0.0010	mg/L	0.00096	96	03/04/99	0090
Selenium		1.0	mg/L	0.96	96	03/04/99	0089
Silver		0.20	mg/L	0.19	95	03/04/99	0089
Uranium		1.0	mg/L	1.0	100	03/04/99	0089
Copper		1.0	mg/L	0.97	97	03/04/99	0089
Iron		1.0	mg/L	0.98	98	03/04/99	0089
Manganese		1.0	mg/L	0.98	98	03/04/99	0089
Zinc		1.0	mg/L	0.97	97	03/04/99	0089
Aluminum		1.0	mg/L	0.97	97	03/04/99	0089
Boron		1.0	mg/L	0.96	96	03/04/99	0089
Cobalt		1.0	mg/L	0.98	98	03/04/99	0089
Molybdenum		1.0	mg/L	0.98	98	03/04/99	0089
Nickel		1.0	mg/L	0.97	97	03/04/99	0089
Cyanide		0.120	mg/L	0.115	96	03/09/99	0091
Fluoride		2.5	mg/L	2.48	99	03/02/99	0092
Nitrate		5.0	mg/L	4.835	97	03/02/99	0092
Chloride		12.5	mg/L	12.17	97	03/02/99	0092
Sulfate		12.5	mg/L	12.285	98	03/02/99	0092
TDS		1000	mg/L	1000	100	03/02/99	0093
pH		7.0	s.u.	7.0	100	03/02/99	0094
TRPHC		100	mg/L	96	96	03/03/99	5757
Total Phenol		0.80	mg/L	0.786	98	03/05/99	0096

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 3/19/99

Order ID Number: 9903000252
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	S/MSD RPD	Date nalyzed	Prep Batch #	Run Batch #
1,1-Dichloroethene	*	ug/L	<1	100	89	89	100	92	92	3	3/3/99		0085
Benzene	*	ug/L	<1	100	94	94	100	97	97	3	3/3/99		0085
Trichloroethene	*	ug/L	<1	100	91	91	100	94	94	3	3/3/99		0085
Toluene	*	ug/L	<1	100	94	94	100	97	97	3	3/3/99		0085
Chlorobenzene	*	ug/L	<1	100	94	94	100	98	98	4	3/3/99		0085
Surr. Dibromofluoromethane	*	%	104	100	105	101	100	106	106	1	3/3/99		0085
Surr. Toluene-d8	*	%	100	100	100	100	100	100	100	0	3/3/99		0085
Surr. 4-Bromofluorobenzene	*	%	102	100	103	103	100	103	103	0	3/3/99		0085
1,1-Dichloroethene	*	ug/L	<1	100	92	92	100	90	90	2	3/11/99		0086
enzene	*	ug/L	<1	100	91	91	100	89	89	2	3/11/99		0086
richloroethene	*	ug/L	<1	100	87	87	100	85	85	2	3/11/99		0086
Toluene	*	ug/L	<1	100	91	91	100	89	89	2	3/11/99		0086
Chlorobenzene	*	ug/L	<1	100	92	92	100	90	90	2	3/11/99		0086
Surr. Dibromofluoromethane	*	%	107	100	108	108	100	109	109	1	3/11/99		0086
Surr. Toluene-d8	*	%	101	100	101	101	100	101	101	0	3/11/99		0086
Surr. 4-Bromofluorobenzene	*	%	104	100	105	105	100	106	106	1	3/11/99		0086
Phenol	*	mg/L	<0.001	100	29	29	100	26	26	11	3/4/99	0093	0087
2-Chlorophenol	*	mg/L	<0.005	100	65	65	100	63	63	3	3/4/99	0093	0087
1,4-Dichlorobenzene	*	mg/L	<0.001	100	42	42	100	40	40	5	3/4/99	0093	0087
n-Nitrosodi-n-propylamine	*	mg/L	<0.001	100	62	62	100	59	59	5	3/4/99	0093	0087
1,2,4-trichlorobenzene	*	mg/L	<0.001	100	53	53	100	49	49	8	3/4/99	0093	0087
4-Chloro-3-methylphenol	*	mg/L	<0.005	100	91	91	100	83	83	9	3/4/99	0093	0087
Acenaphthene	*	mg/L	<0.001	100	77	77	100	75	75	3	3/4/99	0093	0087
4-Nitrophenol	*	mg/L	<0.005	100	39	39	100	36	36	8	3/4/99	0093	0087
2,4-Dinitrotoluene	*	mg/L	<0.001	100	94	94	100	102	102	8	3/4/99	0093	0087
Pentachlorophenol	*	mg/L	<0.005	100	79	79	100	74	74	7	3/4/99	0093	0087
Pyrene	*	mg/L	<0.001	100	79	79	100	70	70	12	3/4/99	0093	0087
Surr. 2-Fluorophenol	*	%	37	100	42	42	100	38	38	10	3/4/99	0093	0087
Surr. Phenol-d6	*	%	24	100	30	30	100	28	28	7	3/4/99	0093	0087
Surr. Nitrobenzene-d5	*	%	62	100	70	70	100	66	66	6	3/4/99	0093	0087
Surr. 2-Fluorobiphenyl	*	%	61	100	74	74	100	70	70	6	3/4/99	0093	0087
Surr. 2,4,6-Tribromophenol	*	%	71	100	93	93	100	99	99	6	3/4/99	0093	0087
Surr. Terphenyl-d14	*	%	94	100	79	79	100	72	72	9	3/4/99	0093	0087

LCS's used for spike and spike duplicate.

Quality Control Report
Matrix Spike and Matrix Duplicate Spike

Order ID Number: 9903000252
Project Name: Shell Westgate
Project Location: Hobbs, NM

Date: 3/19/99
Page #13

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate Spike Amount Added	MSD Result	MSD Percent Recovery	S/MSD RPD	Date nalyzed	Prep Batch #	Run Batch #
PCB		mg/L	<0.001	0.50	0.40	80	0.50	0.43	86	7	3/5/99	0094	0088
Arsenic		mg/L	<0.10	2.0	2.1	105	2.0	2.0	100	5	3/4/99	0095	0089
Barium		mg/L	0.10	2.0	2.1	100	2.0	2.1	100	0	3/4/99	0095	0089
Cadmium		mg/L	<0.01	2.0	2.0	100	2.0	2.0	100	0	3/4/99	0095	0089
Chromium		mg/L	<0.05	2.0	2.0	100	2.0	2.0	100	0	3/4/99	0095	0089
Lead		mg/L	<0.05	2.0	2.0	85	2.0	2.0	100	0	3/4/99	0095	0089
Total Mercury		mg/L	<0.0002	0.0010	0.00085	85	0.0010	0.00085	85	0	3/4/99	0096	0090
Selenium		mg/L	<0.05	2.0	2.0	100	2.0	2.0	100	0	3/4/99	0095	0089
Silver		mg/L	<0.05	0.25	0.23	92	0.25	0.23	92	0	3/4/99	0095	0089
Uranium		mg/L	<0.10	2.0	1.7	85	2.0	1.7	85	0	3/4/99	0095	0089
Copper		mg/L	<0.10	2.0	2.0	100	2.0	2.0	100	0	3/4/99	0095	0089
Iron		mg/L	<0.10	2.0	2.1	105	2.0	2.0	91	5	3/4/99	0095	0089
Manganese		mg/L	0.19	2.0	2.3	106	2.0	2.2	101	5	3/4/99	0095	0089
Zinc		mg/L	<0.10	2.0	2.1	105	2.0	2.0	100	5	3/4/99	0095	0089
Aluminum		mg/L	<0.10	2.0	2.0	78	2.0	2.0	100	0	3/4/99	0095	0089
Boron		mg/L	0.44	2.0	2.4	98	2.0	2.4	98	0	3/4/99	0095	0089
Cobalt		mg/L	<0.05	2.0	2.1	105	2.0	2.1	105	0	3/4/99	0095	0089
Molybdenum		mg/L	<0.10	2.0	2	100	2.0	2.0	100	0	3/4/99	0095	0089
Nickel		mg/L	<0.10	2.0	2.1	105	2.0	2.1	105	0	3/4/99	0095	0089
Cyanide		mg/L	<0.01	0.12	0.135	113	0.12	0.128	107	5	3/9/99	0097	0091
Fluoride	*	mg/L	<0.1	2.5	2.45	98	2.5	2.48	99	1	3/2/99	0098	0092
Nitrate	*	mg/L	<0.2	5.0	4.81	96	5.0	4.84	97	1	3/2/99	0098	0092
Chloride	*	mg/L	<0.5	12.5	11.95	96	12.5	11.95	96	0	3/2/99	0098	0092
Sulfate	*	mg/L	<0.5	12.5	12.24	98	12.5	12.25	98	0	3/2/99	0098	0092
TRPHC		mg/L	0.820	8.5	9.35	110	8.5	9.34	110	0	3/3/99	5613	5757
Total Phenol		mg/L	<0.07	0.80	0.744	93	0.80	0.738	92	1	3/5/99	0104	0096

Quality Control Report
Duplicate

Cliff P. Brunson.
B.B.C. International, Inc.
1324 W. Marland
Hobbs, NM 88240

Date: 03/19/99
Page #14

Order ID Number: 9903000252
Project Name: Shell Westgate
Project Location: Hobbs, NM

Parameter	Flag	Units	Sample Result	Duplicate Sample Result	RPD	Date Analyzed	Prep Batch #	Run Batch #
pH		s.u.	7.0	7.0	0	3/2/99	0101	0094
TDS		mg/kg	1,100	1,100	0	3/2/99	0100	0093

ATEL

Aqua Tech Environmental Laboratories, Inc.

- CERTIFICATE OF ANALYSIS -

Client #: I2565
Trace Analysis
6701 Aberdeen
Suite 9
Lubbock, TX 79424-
Attn: Nell Green

Report Date: *10-Mar-99*

Phone: (806) 794-1296 **Ext:**
FAX: (806) 794-1298

Our Lab#: MEL99-02879 **Your Sample ID:** 119967
Date Logged In: 3/3/99 **Sample Source:** RCRA
Sample Type: Water **Client Project #:**
Project #: **Date Submitted to Lab:** 3/3/99 **PO#:**

- COLLECTION INFORMATION -

Date/Time/By: 3/1/99

EPA Method	Analyst	Prep Date	Analysis Date
8081	SH	3/3/99	3/10/99

CAS Number	Parameter	Result	Typical Report Limit
309-00-2	Aldrin	< 0.02 ug/l	0.02
57-74-9	Chlordane(Total)	< 0.10 ug/l	0.1
50-29-3	4,4'-DDT	< 0.03 ug/l	0.03
60-57-1	Dieldrin	< 0.02 ug/l	0.02
959-98-8	Endosulfan I	< 0.03 ug/l	0.03
72-20-8	Endrin	< 0.05 ug/l	0.05
76-44-8	Heptachlor	< 0.03 ug/l	0.03

--- Surrogate Recoveries ---

QC Lab#	EPA Method	Surrogate Name	Percent Recovery	Lower Limit	Upper Limit
MEL99-02879	8081	Decachlorobiphenyl (Surr)	74 %R	20	150
MEL99-02879	8081	Tetrachloro-m-xylene (Surr)	69 %R	40	130

End of Report

Report Approved By: Wade E. Bayer

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6878 S. STATE ROUTE 100 • P.O. BOX 76 • MELMORE, OH 44845-9999
PHONE 419-397-2659 • 1-800-858-8869 • FAX 419-397-2229

ARS
AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (504) 927-6822

ARS Tracking Number:	ARS-99-0173	**P.O. Number:**	N/A
Client I.D.:	119967	**ARS Sample I.D.:**	ARS-99-0560
Date Sampled:	3/1/99	**Date Received:**	3/3/99
Time Sampled:	N/A	**Time Received**	1410
Type of Sample:	Liquid	**Date of Report**	3/18/99

Analysis Description	Analysis Result	Analysis Error $\pm 2\sigma$	Detection Limit	Analysis Units	Analysis Test Method	Analysis Date & Time	Analysis Technician
Ra-226	BDL	N/A	0.94	pCi/L	EPA 903	3/10/99 1646	KK
Ra-228	1.95	0.88	1.32	pCi/L	EPA 904	3/10/99 1646	KK

Quality Assurance Review

Notes: American Radiation Services, Inc assumes no liability for the use or interpretation of any analytical results provided other than the cost of the performed analysis itself. Reproduction of this report in less than full requires the written consent of the client.

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Page 1 of 1

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 14 990306252

Company Name: BBC International, Inc. Phone #: (505) 397-6388

Address: (Street, City, Zip) 1324 W. Marland, Hobbs, NM 88240 Fax #: (505) 397-0397

Contact Person: Cliff P. Brunson

Invoice to: (If different from above) Shell E & P Technology Co. ATTN: Wayne Hamilton

Project #: Project Name: Shell Westgate

Project Location: Hobbs, New Mexico Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Methanol	SAMPLING: DATE	TIME
119967	TMW5	1	500ml	X					X	X			3-1-99	11:00 am
	TMW5	4	VOA	X				X		X			3-1-99	11:00 am
	TMW5	11	1 LL	X				X	X	X			3-1-99	11:30 am
68	Trip Blanks	2	VOA	X										

ANALYSIS REQUEST

(Circle or Specify Method No.)

MTBE 8021B/602	
BTEX 8021B/602	
TPH 418.1/TX1005	X
PAH 8270C	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC-MS Vol. 8260B/624	
GC/MS Semi. Vol. 8270C/625	
PCB's 8082/608	
Pesticides 8081A/608	
BOD, TSS, pH	
See Attached (Full Suite)	X
Total Chlorides (300-1)	
Total Metals (6010)	
Turn Around Time if different from standard	
Hold	

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Daniel A. Williams	3-1-99	2:00pm			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: Vicki Wyndham	3-2-99	9:00 am

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

LAB USE ONLY

Intact (Y) N

Headspace Y / N

Temp 1 °

Log-in Review MB

REMARKS:

Agreed Upon Turnaround

Rush Vol & Semi Vol per Cliff Brunson. MB 03/02/99

Carrier # BUS 102071978 5

Groundwater Laboratory Results - 1998

Analyte	Method	TMW-1	TMW-2	TMW-3	GMW-1	GMW-2	GMW-3	GMW-4	GMW-5	GMW-6	GMW-7	GMW-8	GMW-9	GMW-9D	GMW-10
		Sample: 109052	Sample: 109054	Sample: 109056	Sample: 109439	Sample : 109059	Sample: 109440	Sample: 109061	Sample: 109441	Sample: 109063	Sample: 109065	Sample: 109067	Sample: 109069	Sample: 109073	Sample: 109071
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Acrolein	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	S 8260B	0.002	0.002	ND	ND	ND	ND	0.002	ND	ND	0.0012	0.0021	0.0018	ND	0.0016
Carbon tetrachloride	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloroethane	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-trichloroethane	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-trichloroethylene	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorobenzene	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethylene	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloropropenes	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	S 8260B	ND	ND	0.001	0.200	ND	ND	ND	0.19	0.002	ND	ND	0.018	0.018	ND
Bromodichloromethane	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluorometane	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	S 8260B	ND	ND	ND	ND	0.001	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m,p-xylene	S 8260B	0.001	ND	0.005	0.720	0.002	0.580	ND	1.220	0.007	ND	ND	0.080	0.082	ND
o-xylene	S 8260B	ND	ND	0.002	0.170	ND	0.120	ND	0.275	0.002	ND	ND	0.027	0.027	ND
1,1-dichloroethane	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylene dibromide	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-dichlorethylene	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-dichloroethylene	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	S 8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND = Not Detected. See Laboratory Analysis in Appendix VI for detection limits.

Groundwater Laboratory Results - 1998

Analyte	Method	TMW-1	TMW-2	TMW-3	GMW-1	GMW-2	GMW-3	GMW-4	GMW-5	GMW-6	GMW-7	GMW-8	GMW-9	GMW-9D	GMW-10
		Sample: 109052	Sample: 109054	Sample: 109056	Sample: 109439	Sample : 109059	Sample: 109440	Sample: 109061	Sample: 109441	Sample: 109063	Sample: 109065	Sample: 109067	Sample: 109069	Sample: 109073	Sample: 109071
		%	%	%	%	%	%	%	%	%	%	%	%	%	%
Surr. Dibromofluoromethane	S-8260B %	100	103	103	100	106	101	107	104	109	106	109	111	111	106
Surr. Toluene-d8	S-8260B %	100	100	99	93	100	92	98	92	97	95	94	96	96	94
Surr. 4-Bromofluorobenzene	S-8260B %	102	102	102	95	103	96	100	98	100	103	103	103	104	103
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Benzidine	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorobenzene	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-tetrachlorobenzene	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-dichlorophenol	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,5-trichlorophenol	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,6-trichlorophenol	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis (2-chloroethyl) ether	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis (2-chloroisopropyl) ether	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis (chloromethyl) ether	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3,3-dichlorobenzidine	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-dinitrotoluene	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diphenylhydrazine	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isophorone	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrobenzene	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-dinitro-o-cresol	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-dinitrophenols	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-nitrosodiethylamine	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-nitrosodimethylamine	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-nitrosodibutylamine	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-nitrosodiphenylamine	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-nitrosopyrrolidine	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibutyl phthalate	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-ethylhexyl) phthalate	S 8270C	ND	ND	ND	0.035	ND	0.020	0.008	0.054	ND	ND	ND	ND	ND	ND
Diethyl phthalate	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND = Not Detected. See Laboratory Analysis in Appendix VI for detection limits.

Groundwater Laboratory Results - 1998

Analyte	Method	TMW-1	TMW-2	TMW-3	GMW-1	GMW-2	GMW-3	GMW-4	GMW-5	GMW-6	GMW-7	GMW-8	GMW-9	GMW-9D	GMW-10
		Sample: 109052	Sample: 109054	Sample: 109056	Sample: 109439	Sample : 109059	Sample: 109440	Sample: 109061	Sample: 109441	Sample: 109063	Sample: 109065	Sample: 109067	Sample: 109069	Sample: 109073	Sample: 109071
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
3,4-benzofluoranthene	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	S 8270C	ND	ND	ND	0.0012	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	S 8270C	ND	ND	ND	0.002	ND	ND	ND	0.024	ND	ND	ND	ND	ND	ND
Pyrene	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	S 8270C	ND	ND	ND	0.005	ND	0.023	ND	0.01	ND	ND	ND	ND	ND	ND
1-methylnaphthalene	S 8270C	ND	ND	ND	0.0097	ND	0.034	ND	0.15	ND	ND	ND	ND	0.003	ND
2-methylnaphthalene	S 8270C	ND	ND	ND	0.01	ND	0.024	ND	0.16	ND	ND	ND	ND	ND	ND
Benzo-a-pyrene	S 8270C	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		%	%	%	%	%	%	%	%	%	%	%	%	%	%
Surr. 2-Fluorophenol	8270C %	21	10	33	26	21	24	14	22	26	27	34	21	26	18
Surr. Phenol-d6	8270C %	25	12	23	36	15	19	20	19	23	21	26	14	18	14
Surr. Nitrobenzene-d5	8270C %	68	56	66	34	46	67	46	80	61	66	97	58	67	58
Surr. 2-Fluorobiphenyl	8270C %	72	60	72	34	51	74	50	68	69	71	100	64	70	64
Surr. 2,4,6-Tribromophenol	8270C %	79	63	68	32	43	68	42	50	58	59	82	63	63	52
Surr. Terphenyl-d14	8270C %	68	63	60	37	47	69	49	70	63	63	75	71	63	53
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Aldrin	S-8080	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane	S-8080	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DDT	S-8080	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	S-8080	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan	S-8080	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	S-8080	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	S-8080	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
PCB's	S-8082	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND = Not Detected. See Laboratory Analysis in Appendix VI for detection limits.

Groundwater Laboratory Results - 1998

Analyte	Method	TMW-1	TMW-2	TMW-3	GMW-1	GMW-2	GMW-3	GMW-4	GMW-5	GMW-6	GMW-7	GMW-8	GMW-9	GMW-9D	GMW-10
		Sample: 109052	Sample: 109054	Sample: 109056	Sample: 109439	Sample : 109059	Sample: 109440	Sample: 109061	Sample: 109441	Sample: 109063	Sample: 109065	Sample: 109067	Sample: 109069	Sample: 109073	Sample: 109071
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Arsenic	S 6010B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Barium	S 6010B	0.19	0.26	0.21	0.26	0.25	0.61	0.31	0.25	0.41	0.14	0.28	0.42	0.43	0.19
Cadmium	S 6010B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	S 6010B	ND	ND	ND	ND	0.07	ND	ND	ND	0.10	ND	ND	ND	ND	ND
Lead	S 6010B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Total Mercury	S 6010B	0.0017	0.0006	0.0004	ND	ND	ND	ND	ND	0.0002	ND	ND	ND	ND	ND
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Selenium	S 6010B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	S 6010B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Uranium	S 6010B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	S 6010B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron	S 6010B	5	5.9	9.0	2.2	23	14	14	4.6	34	7.4	4.4	5.6	3.2	6.6
Manganese	S 6010B	0.14	0.10	0.16	0.38	0.28	0.25	0.17	0.19	0.42	ND	0.18	0.16	0.14	ND
Zinc	S 6010B	ND	ND	ND	ND	ND	ND	ND	ND	0.16	ND	ND	ND	ND	ND
Aluminum	S 6010B	7	10	15	3.1	39	22	24	5.6	51	11	6.6	10	5	12
Boron	S 6010B	0.37	0.44	0.33	0.22	0.21	0.42	0.16	0.37	0.23	0.19	0.41	0.24	0.23	0.26
Cobalt	S 6010B	ND	ND	ND	ND	ND	ND	ND	0.07	0.05	ND	ND	ND	ND	ND
Molybdenum	S 6010B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	S 6010B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Cyanide	SM 4500 C,E	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Fluoride	E 300.0	1.7	1.5	2.1	2	1.8	2.3	1.8	2.0	1.7	1.9	2.0	2.1	2.3	1.7
Nitrate	E 300.0	0.16	0.41	1.03	ND	2.17	3.4	2.30	3.6	4.81	1.97	0.59	2.39	1.50	1.66
Chloride	E 300.0	250	230	150	110	51	160	42	150	46	41	170	57	64	180
Sulfate	E 300.0	58	51	110	100	87	160	72	160	79	74	68	85	87	80

ND = Not Detected. See Laboratory Analysis in Appendix VI for detection limits.

Groundwater Laboratory Results - 1998

Analyte	Method	TMW-1	TMW-2	TMW-3	GMW-1	GMW-2	GMW-3	GMW-4	GMW-5	GMW-6	GMW-7	GMW-8	GMW-9	GMW-9D	GMW-10
		Sample: 109052	Sample: 109054	Sample: 109056	Sample: 109439	Sample : 109059	Sample: 109440	Sample: 109061	Sample: 109441	Sample: 109063	Sample: 109065	Sample: 109067	Sample: 109069	Sample: 109073	Sample: 109071
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
TDS	E 160.1	830	880	930	550	450	840	470	790	500	430	750	540	580	640
		s.u.	s.u.	s.u.	s.u.	s.u.	s.u.	s.u.	s.u.	s.u.	s.u.	s.u.	s.u.	s.u.	s.u.
pH	E 150.1	7.0	7.0	6.9	7.5	7.4	7.3	7.4	7.1	7.4	7.4	7.2	7.0	7.1	7.2
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
TRPHC	E 418.1	ND	ND	ND	16.9	ND	27	0.533	5	ND	ND	ND	7.28	4.76	ND
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Total Phenols	S 5530 A,D	ND	0.1	0.5	ND	0.1	0.0	0.7	ND	0.1	ND	ND	ND	ND	ND
		pci/L	pci/L	pci/L	pci/L	pci/L	pci/L	pci/L	pci/L	pci/L	pci/L	pci/L	pci/L	pci/L	pci/L
Total Activity	E 901.1M	17.07	3.93	6.23	5.27	3.42	2.13	2.74	4.51	2.5	2.27	2.62	3.43	3.73	4.22

ND = Not Detected. See Laboratory Analysis in Appendix VI for detection limits.

Appendix VII

Soil Vapor Survey Field Documentation and QA/QC

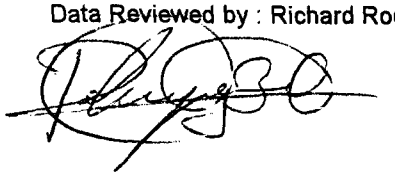
BBC INTERNATIONAL
HOBBS, NEW MEXICO
QA/QC REPORT

QC Data Report for soil vapors for EPA methods 8021 and 8015 and Fixed Gases

Date: 05/17/99
Time: 8:07

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	ng	9.05	91
Toluene	10.00	ng	9.16	92
Chlorobenzene	10.00	ng	9.59	96
Ethylbenzene	10.00	ng	10.94	109
Total Xylenes	30.00	ng	28.23	94
Vinyl chloride	10.00	ng	10.94	109
1,1- Dichloroethene	10.00	ng	9.50	95
Trans-1,2-dichloroethene	10.00	ng	9.50	95
Cis-1,2-Dichloroethene	10.00	ng	9.83	98
Chloroform	10.00	ng	8.28	83
1,1,1-Trichloroethane	10.00	ng	8.75	88
Carbon Tetrachloride	10.00	ng	8.41	84
Trichloroethene	10.00	ng	9.08	91
Tetrachloroethene	10.00	ng	9.20	92
TPH	1000.00	ppmv	936	94
Methane	1000.00	ppmv	852	85
Ethane	1000.00	ppmv	975	98
Propane	1000.00	ppmv	986	99
Butane	1000.00	ppmv	988	99
Pentane	1000.00	ppmv	980	98
Carbon dioxide	5.00	%	4.69	94
Oxygen	5.00	%	4.76	95
Nitrogen	5.00	%	5.00	100

Analysis performed by : Richard Rodriguez
Data Reviewed by : Richard Rodriguez



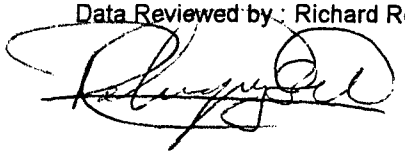
BBC INTERNATIONAL
HOBBS, NEW MEXICO
QA/QC REPORT

QC Data Report for soil vapors for EPA methods 8021 and 8015 and Fixed Gases

Date: 05/17/99
Time: 14:10

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	ng	8.79	88
Toluene	10.00	ng	8.67	87
Chlorobenzene	10.00	ng	8.57	86
Ethylbenzene	10.00	ng	9.01	90
Total Xylenes	30.00	ng	26.52	88
Vinyl chloride	10.00	ng	10.17	102
1,1- Dichloroethene	10.00	ng	9.13	91
Trans-1,2-dichloroethene	10.00	ng	9.14	91
Cis-1,2-Dichloroethene	10.00	ng	9.52	95
Chloroform	10.00	ng	8.75	88
1,1,1-Trichloroethane	10.00	ng	9.19	92
Carbon Tetrachloride	10.00	ng	8.93	89
Trichloroethene	10.00	ng	8.75	88
Tetrachloroethene	10.00	ng	8.73	87
TPH	1000.00	ppmv	1102	110
Methane	1000.00	ppmv	846	85
Ethane	1000.00	ppmv	1082	108
Propane	1000.00	ppmv	1090	109
Butane	1000.00	ppmv	1067	107
Pentane	1000.00	ppmv	1080	108
Hexane	1000.00	ppmv	1092	109
Carbon dioxide	5.00	%	5.22	104
Oxygen	5.00	%	5.33	107
Nitrogen	5.00	%	5.34	107

Analysis performed by : Richard Rodriguez
Data Reviewed by : Richard Rodriguez



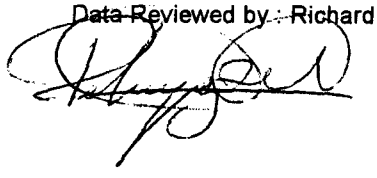
BBC INTERNATIONAL
HOBBS, NEW MEXICO
QA/QC REPORT

QC Data Report for soil vapors for EPA methods 8021 and 8015 and Fixed Gases

Date: 05/17/99
Time: 16:56

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	ng	9.85	99
Toluene	10.00	ng	9.57	96
Chlorobenzene	10.00	ng	9.61	96
Ethylbenzene	10.00	ng	10.13	101
Total Xylenes	30.00	ng	28.52	95
Vinyl chloride	10.00	ng	10.96	110
1,1- Dichloroethene	10.00	ng	10.05	101
Trans-1,2-dichloroethene	10.00	ng	10.22	102
Cis-1,2-Dichloroethene	10.00	ng	10.67	107
Chloroform	10.00	ng	9.71	97
1,1,1-Trichloroethane	10.00	ng	10.38	104
Carbon Tetrachloride	10.00	ng	10.27	103
Trichloroethene	10.00	ng	9.84	98
Tetrachloroethene	10.00	ng	9.65	97
TPH	1000.00	ppmv	1161	116
Methane	1000.00	ppmv	739	74
Ethane	1000.00	ppmv	852	85
Propane	1000.00	ppmv	886	89
Butane	1000.00	ppmv	891	89
Pentane	1000.00	ppmv	909	91
Hexane	1000.00	ppmv	912	91
Carbon dioxide	5.00	%	5.19	104
Oxygen	5.00	%	5.35	107
Nitrogen	5.00	%	5.33	107

Analysis performed by : Richard Rodriguez
Data Reviewed by : Richard Rodriguez



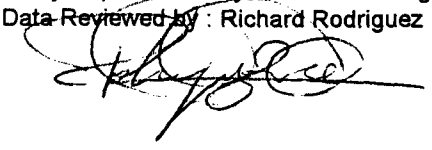
BBC INTERNATIONAL
HOBBS, NEW MEXICO
QA/QC REPORT

QC Data Report for soil vapors for EPA methods 8021 and 8015

Date: 05/18/99
Time: 13:00

COMPONENTS	INJECTED	UNITS		% RECOVERY
Benzene	10.00	ng	9.92	99
Toluene	10.00	ng	9.99	100
Chlorobenzene	10.00	ng	9.80	98
Ethylbenzene	10.00	ng	10.33	103
Total Xylenes	30.00	ng	29.25	98
Vinyl chloride	10.00	ng	10.15	102
1,1- Dichloroethene	10.00	ng	9.90	99
Trans-1,2-dichloroethene	10.00	ng	10.37	104
Cis-1,2-Dichloroethene	10.00	ng	10.88	109
Chloroform	10.00	ng	10.21	102
1,1,1-Trichloroethane	10.00	ng	10.87	109
Carbon Tetrachloride	10.00	ng	10.66	107
Trichloroethene	10.00	ng	9.89	99
Tetrachloroethene	10.00	ng	9.90	99
TPH	1000.00	ppmv	877	88
Methane	1000.00	ppmv	935	94
Ethane	1000.00	ppmv	1058	106
Propane	1000.00	ppmv	1071	107
Butane	1000.00	ppmv	1063	106
Pentane	1000.00	ppmv	1116	112
Hexane	1000.00	ppmv	1210	121
Carbon dioxide	5.00	%	4.99	100
Oxygen	5.00	%	5.60	112
Nitrogen	5.00	%	5.80	116

Analysis performed by : Richard Rodriguez
Data Reviewed by : Richard Rodriguez



BBC INTERNATIONAL
HOBBS, NEW MEXICO
QA/QC REPORT

QC Data Report for soil vapors for EPA methods 8021 and 8015

Date: 05/18/99
Time: 15:41

COMPONENTS	INJECTED	UNITS		% RECOVERY
Benzene	10.00	ng	9.03	90
Toluene	10.00	ng	8.96	90
Chlorobenzene	10.00	ng	8.87	89
Ethylbenzene	10.00	ng	9.34	93
Total Xylenes	30.00	ng	26.30	88
Vinyl chloride	10.00	ng	8.78	88
1,1- Dichloroethene	10.00	ng	9.16	92
Trans-1,2-dichloroethene	10.00	ng	9.38	94
Cis-1,2-Dichloroethene	10.00	ng	9.81	98
Chloroform	10.00	ng	9.38	94
1,1,1-Trichloroethane	10.00	ng	10.01	100
Carbon Tetrachloride	10.00	ng	9.89	99
Trichloroethene	10.00	ng	8.96	90
Tetrachloroethene	10.00	ng	8.98	90
TPH	1000.00	ppmv	1158	116
Methane	1000.00	ppmv	902	90
Ethane	1000.00	ppmv	1021	102
Propane	1000.00	ppmv	1035	104
Butane	1000.00	ppmv	1023	102
Pentane	1000.00	ppmv	1043	104
Hexane	1000.00	ppmv	1070	107
Carbon dioxide	5.00	%	5.07	101
Oxygen	5.00	%	5.00	100
Nitrogen	5.00	%	5.05	101

Analysis performed by : Richard Rodriguez
Data Reviewed by : Richard Rodriguez

BBC INTERNATIONAL
HOBBS, NEW MEXICO
QA/QC REPORT

QC Data Report for soil vapors for EPA methods 8021 and 8015

Date: 05/19/99
Time: 5:25

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	ng	8.66	87
Toluene	10.00	ng	8.58	86
Chlorobenzene	10.00	ng	8.60	86
Ethylbenzene	10.00	ng	9.05	91
Total Xylenes	30.00	ng	25.34	84
Vinyl chloride	10.00	ng	8.79	88
1,1- Dichloroethene	10.00	ng	8.82	88
Trans-1,2-dichloroethene	10.00	ng	9.11	91
Cis-1,2-Dichloroethene	10.00	ng	9.57	96
Chloroform	10.00	ng	8.45	85
1,1,1-Trichloroethane	10.00	ng	9.26	93
Carbon Tetrachloride	10.00	ng	8.93	89
Trichloroethene	10.00	ng	8.70	87
Tetrachloroethene	10.00	ng	8.65	87
TPH	1000.00	ppmv	1140	114
Methane	1000.00	ppmv	839	84
Ethane	1000.00	ppmv	987	99
Propane	1000.00	ppmv	1019	102
Butane	1000.00	ppmv	1015	102
Pentane	1000.00	ppmv	1033	103
Hexane	1000.00	ppmv	1037	104
Carbon dioxide	5.00	%	4.81	96
Oxygen	5.00	%	5.22	104
Nitrogen	5.00	%	5.22	104

Analysis performed by : Richard Rodriguez
Data Reviewed by : Richard Rodriguez

BBC INTERNATIONAL
HOBBS, NEW MEXICO
QA/QC REPORT

QC Data Report for soil vapors for EPA methods 8021 and 8015

Date: 05/19/99
Time: 14:35

COMPONENTS	INJECTED	UNITS		% RECOVERY
Benzene	10.00	ng	8.18	82
Toluene	10.00	ng	8.23	82
Chlorobenzene	10.00	ng	8.13	81
Ethylbenzene	10.00	ng	8.49	85
Total Xylenes	30.00	ng	24.12	80
Vinyl chloride	10.00	ng	10.70	107
1,1- Dichloroethene	10.00	ng	8.34	83
Trans-1,2-dichloroethene	10.00	ng	8.57	86
Cis-1,2-Dichloroethene	10.00	ng	8.88	89
Chloroform	10.00	ng	8.27	83
1,1,1-Trichloroethane	10.00	ng	9.25	93
Carbon Tetrachloride	10.00	ng	9.78	98
Trichloroethene	10.00	ng	8.26	83
Tetrachloroethene	10.00	ng	8.32	83
TPH	1000.00	ppmv	1035	104
Methane	1000.00	ppmv	735	74
Ethane	1000.00	ppmv	828	83
Propane	1000.00	ppmv	845	85
Butane	1000.00	ppmv	838	84
Pentane	1000.00	ppmv	858	86
Hexane	1000.00	ppmv	883	88
Carbon dioxide	5.00	%	5.70	114
Oxygen	5.00	%	5.60	112
Nitrogen	5.00	%	5.20	104

Analysis performed by : Richard Rodriguez
Data Reviewed by : Richard Rodriguez

BBC INTERNATIONAL
HOBBS, NEW MEXICO
QA/QC REPORT

QC Data Report for soil vapors for EPA methods 8021 and 8015

Date: 05/19/99
Time: 16:31

COMPONENTS	INJECTED	UNITS		% RECOVERY
Benzene	10.00	ng	8.66	87
Toluene	10.00	ng	8.65	87
Chlorobenzene	10.00	ng	8.71	87
Ethylbenzene	10.00	ng	9.14	91
Total Xylenes	30.00	ng	25.80	86
Vinyl chloride	10.00	ng	7.94	79
1,1- Dichloroethene	10.00	ng	8.12	81
Trans-1,2-dichloroethene	10.00	ng	8.55	86
Cis-1,2-Dichloroethene	10.00	ng	9.30	93
Chloroform	10.00	ng	9.67	97
1,1,1-Trichloroethane	10.00	ng	10.73	107
Carbon Tetrachloride	10.00	ng	10.73	107
Trichloroethene	10.00	ng	8.67	87
Tetrachloroethene	10.00	ng	8.72	87
TPH	1000.00	ppmv	879	88
Methane	1000.00	ppmv	1244	124
Ethane	1000.00	ppmv	1267	127
Propane	1000.00	ppmv	1124	112
Butane	1000.00	ppmv	1245	125
Pentane	1000.00	ppmv	1280	128
Hexane	1000.00	ppmv	1149	115
Carbon dioxide	5.00	%	5.47	109
Oxygen	5.00	%	5.37	107
Nitrogen	5.00	%	5.22	104

Analysis performed by : Richard Rodriguez
Data Reviewed by : Richard Rodriguez

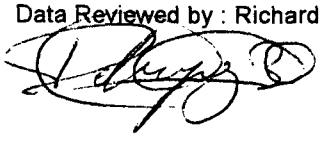
BBC INTERNATIONAL
HOBBS, NEW MEXICO
QA/QC REPORT

QC Data Report for soil vapors for EPA methods 8021 and 8015

Date: 05/20/99
Time: 5:22

COMPONENTS	INJECTED	UNITS	RECOVERED	% RECOVERY
Benzene	10.00	ng	8.80	88
Toluene	10.00	ng	8.64	86
Chlorobenzene	10.00	ng	8.56	86
Ethylbenzene	10.00	ng	9.02	90
Total Xylenes	30.00	ng	25.58	85
Vinyl chloride	10.00	ng	9.59	96
1,1- Dichloroethene	10.00	ng	9.79	98
Trans-1,2-dichloroethene	10.00	ng	9.41	94
Cis-1,2-Dichloroethene	10.00	ng	9.64	96
Chloroform	10.00	ng	8.70	87
1,1,1-Trichloroethane	10.00	ng	9.70	97
Carbon Tetrachloride	10.00	ng	9.39	94
Trichloroethene	10.00	ng	8.64	86
Tetrachloroethene	10.00	ng	8.81	88
TPH	1000.00	ppmv	901	90
Methane	1000.00	ppmv	982	98
Ethane	1000.00	ppmv	1115	112
Propane	1000.00	ppmv	1126	113
Butane	1000.00	ppmv	1114	111
Pentane	1000.00	ppmv	1151	115
Hexane	1000.00	ppmv	1238	124
Carbon dioxide	5.00	%	5.12	102
Oxygen	5.00	%	5.07	101
Nitrogen	5.00	%	5.36	107

Analysis performed by : Richard Rodriguez
Data Reviewed by : Richard Rodriguez



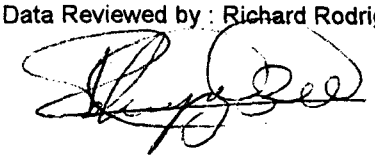
BBC INTERNATIONAL
HOBBS, NEW MEXICO
QA/QC REPORT

QC Data Report for soil vapors for EPA methods 8021 and 8015

Date: 05/20/99
Time: 12:18

COMPONENTS	INJECTED	UNITS		% RECOVERY
Benzene	10.00	ng	8.02	80
Toluene	10.00	ng	8.04	80
Chlorobenzene	10.00	ng	7.82	78
Ethylbenzene	10.00	ng	8.27	83
Total Xylenes	30.00	ng	24.37	81
Vinyl chloride	10.00	ng	8.18	82
1,1- Dichloroethene	10.00	ng	8.45	85
Trans-1,2-dichloroethene	10.00	ng	8.37	84
Cis-1,2-Dichloroethene	10.00	ng	8.59	86
Chloroform	10.00	ng	11.10	111
1,1,1-Trichloroethane	10.00	ng	11.73	117
Carbon Tetrachloride	10.00	ng	11.11	111
Trichloroethene	10.00	ng	11.02	110
Tetrachloroethene	10.00	ng	10.62	106
TPH	1000.00	ppmv	1098	110
Methane	1000.00	ppmv	720	72
Ethane	1000.00	ppmv	807	81
Propane	1000.00	ppmv	825	83
Butane	1000.00	ppmv	822	82
Pentane	1000.00	ppmv	850	85
Hexane	1000.00	ppmv	876	88
Carbon dioxide	5.00	%	5.05	101
Oxygen	5.00	%	5.04	101
Nitrogen	5.00	%	5.26	105

Analysis performed by : Richard Rodriguez
Data Reviewed by : Richard Rodriguez



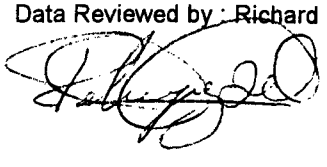
BBC INTERNATIONAL
HOBBS, NEW MEXICO
QA/QC REPORT

QC Data Report for soil vapors for EPA methods 8021 and 8015

Date: 05/20/99
Time: 15:12

COMPONENTS	INJECTED	UNITS		% RECOVERY
Benzene	10.00	ng	9.04	90
Toluene	10.00	ng	8.94	89
Chlorobenzene	10.00	ng	8.79	88
Ethylbenzene	10.00	ng	9.20	92
Total Xylenes	30.00	ng	26.39	88
Vinyl chloride	10.00	ng	7.66	77
1,1- Dichloroethene	10.00	ng	9.31	93
Trans-1,2-dichloroethene	10.00	ng	9.40	94
Cis-1,2-Dichloroethene	10.00	ng	9.70	97
Chloroform	10.00	ng	11.09	111
1,1,1-Trichloroethane	10.00	ng	12.03	120
Carbon Tetrachloride	10.00	ng	11.72	117
Trichloroethene	10.00	ng	8.92	89
Tetrachloroethene	10.00	ng	8.97	90
TPH	1000.00	ppmv	931	93
Methane	1000.00	ppmv	993	99
Ethane	1000.00	ppmv	1132	113
Propane	1000.00	ppmv	1146	115
Butane	1000.00	ppmv	1132	113
Pentane	1000.00	ppmv	1152	115
Hexane	1000.00	ppmv	1189	119
Carbon dioxide	5.00	%	5.41	108
Oxygen	5.00	%	5.16	103
Nitrogen	5.00	%	4.92	98

Analysis performed by : Richard Rodriguez
Data Reviewed by : Richard Rodriguez



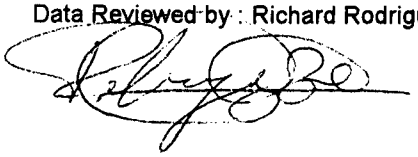
BBC INTERNATIONAL
HOBBS, NEW MEXICO
QA/QC REPORT

QC Data Report for soil vapors for EPA methods 8021 and 8015

Date: 05/21/99
Time: 12:16

COMPONENTS	INJECTED	UNITS		% RECOVERY
Benzene	10.00	ng	9.82	98
Toluene	10.00	ng	10.10	101
Chlorobenzene	10.00	ng	10.12	101
Ethylbenzene	10.00	ng	10.11	101
Total Xylenes	30.00	ng	30.24	101
Vinyl chloride	10.00	ng	8.74	87
1,1- Dichloroethene	10.00	ng	9.20	92
Trans-1,2-dichloroethene	10.00	ng	9.35	94
Cis-1,2-Dichloroethene	10.00	ng	9.18	92
Chloroform	10.00	ng	10.46	105
1,1,1-Trichloroethane	10.00	ng	10.74	107
Carbon Tetrachloride	10.00	ng	10.56	106
Trichloroethene	10.00	ng	9.86	99
Tetrachloroethene	10.00	ng	10.20	102
TPH	1000.00	ppmv	827	83
Methane	1000.00	ppmv	1025	103
Ethane	1000.00	ppmv	1169	117
Propane	1000.00	ppmv	1184	118
Butane	1000.00	ppmv	1171	117
Pentane	1000.00	ppmv	1204	120
Hexane	1000.00	ppmv	1298	130
Carbon dioxide	5.00	%	5.30	106
Oxygen	5.00	%	5.03	101
Nitrogen	5.00	%	5.00	100

Analysis performed by : Richard Rodriguez
Data Reviewed by : Richard Rodriguez



Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: BBC INT

DATE: 5-17-99 PAGE 1 OF

ADDRESS: 1324 W. Marland P.O Box 297 Hobbs, NM 88241

TEG PROJECT #: T3-990517

PHONE: (505) 397-6388 FAX: (505) 397-0397

LOCATION: Hobbs, NM

CLIENT PROJECT #: PROJECT MANAGER: CLIFF BRUNSON.

COLLECTOR: TEG DATE OF COLLECTION: 5-17-99

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 601/8010	VOA 602/8020	MTBE	Methane	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (mg & #)	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	C1-C6	FIELD NOTES	Total No. of Containers	Laboratory Note No.
SV-273-277	1'	9:00	VAPOR	5cc syr	✓	✓		✓				✓			✓	✓	✓	✓			
SV-274-277	3'	9:30	"		✓	✓		✓				✓			✓	✓	✓	✓			
SV-275	5'	10:55	"		✓	✓		✓				✓			✓	✓	✓	✓			
SV-276	10'	11:15	"		✓	✓		✓				✓			✓	✓	✓	✓			
SV-277	5'	11:35	"		✓	✓		✓				✓			✓	✓	✓	✓			
SV-278	1'	12:05	"		✓	✓		✓				✓			✓	✓	✓	✓			
SV-279	3'	12:30	"		✓	✓		✓				✓			✓	✓	✓	✓			
SV-280	5'	13:00	"		✓	✓		✓				✓			✓	✓	✓	✓			
SV-281	10'	13:30	"		✓	✓		✓				✓			✓	✓	✓	✓			
SV-282	6½'	1350	"		✓	✓		✓				✓			✓	✓	✓	✓			
SV-283	1'	15:00	"		✓	✓		✓				✓			✓	✓	✓	✓			
SV-284	3'	15:25	"		✓	✓		✓				✓			✓	✓	✓	✓			
SV-285	5'	15:50	"		✓	✓		✓				✓			✓	✓	✓	✓			
SV-286	9½'	16:15	"		✓	✓		✓				✓			✓	✓	✓	✓			
SV-287	5'	16:45	"		✓	✓		✓				✓			✓	✓	✓	✓			

RELINQUISHED BY (Signature) DATE/TIME 5/17/99 RECEIVED BY (SIGNATURE) DATE/TIME 5/17/99 16:45

RELINQUISHED BY (Signature) DATE/TIME RECEIVED BY (SIGNATURE) DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL/$2.00@ RETURN PICKUP

SAMPLE RECEIPT

Total No. of Containers	
Seals Intact? Y/N/NA	
Received Good Cond./Cold	
Notes:	

Laboratory Notes:

MMP 11/95

Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: BDC INT.
DATE: 5-18-99
PAGE 1 OF
ADDRESS: 1324 W. Marland P.O Box 297 Hobbs, NM 88241
TEG PROJECT #: T3-990517
PHONE: (505) 397-6388
FAX: (505) 397-0397
LOCATION: Hobbs, NM
CLIENT PROJECT #:
PROJECT MANAGER: CLIFF BRUNSON
COLLECTOR: TEG
DATE OF COLLECTION: 5-18-99

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 601/8010	VOA 602/8020	MTBE	Methane	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (g & d)	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	C1 - C6	FIELD NOTES	Total No. of Containers	Laboratory Note No.
SV-288	1'	8:20	VAPOR	5cc SYRINGE	✓	✓		✓				✓			✓	✓	✓	✓			
SV-289	3'	9:00	"	"	✓	✓		✓				✓			✓	✓	✓	✓			
SV-290	5'	9:30	"	"	✓	✓		✓				✓			✓	✓	✓	✓			
SV-291	10'	9:50	"	"	✓	✓		✓				✓			✓	✓	✓	✓			
SV-292	5'	10:15	"	"	✓	✓		✓				✓			✓	✓	✓	✓			
SV-293	1'	10:45	"	"	✓	✓		✓				✓			✓	✓	✓	✓			
SV-294	3'	11:05	"	"	✓	✓		✓				✓			✓	✓	✓	✓			
SV-295	5'	11:35	"	"	✓	✓		✓				✓			✓	✓	✓	✓			
SV-296	10'	12:00	"	"	✓	✓		✓				✓			✓	✓	✓	✓			
SV-297	7'	12:25	"	"	✓	✓		✓				✓			✓	✓	✓	✓			
SV-298	1'	13:30	"	"	✓	✓		✓				✓			✓	✓	✓	✓			
SV-299	3'	14:00	"	"	✓	✓		✓				✓			✓	✓	✓	✓			
SV-300	5'	14:25	"	"	✓	✓		✓				✓			✓	✓	✓	✓			
SV-301	10'	14:50	"	"	✓	✓		✓				✓			✓	✓	✓	✓			
SV-302	7'	15:15	"	"	✓	✓		✓				✓			✓	✓	✓	✓			

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RELINQUISHED BY (Signature) DATE/TIME RECEIVED BY (SIGNATURE) DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL/$2.00@ RETURN PICKUP

SAMPLE RECEIPT	
Total No. of Containers	
Seals Intact? Y/N/NA	
Received Good Cond./Cold	
Notes:	

Laboratory Notes:

MMP 11/95

Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: BBC INT
DATE: 5-19-99
PAGE 1 OF
ADDRESS: 1324 W. Marland P.O.Box 297 Hobbs, NM 88241
TEG PROJECT #: T3-990517
PHONE: (505) 397-6388
FAX: (505) 397-0397
LOCATION: Hobbs, NM
CLIENT PROJECT #:
PROJECT MANAGER: CLIFF BRUNSON
COLLECTOR: TEG
DATE OF COLLECTION: 5-19-99

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 601/8010	VOA 602/8020	MTBE	Methane	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (Sig fuel)	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	C1-C6	FIELD NOTES	Total No. of Containers	Laboratory Note No.
SV-313	1	8:30	VAPOR	60cc SYR	✓	✓		✓			✓				✓	✓	✓	✓			
SV-314	3'	8:50	"	"	—	—		—			—				—	—	—	—			
SV-315	5'	9:20	"	"	—	—		—			—				—	—	—	—			
SV-323	7½	9:50	"	"	—	—		—			—				—	—	—	—	changed to SV-316		
SV-316	10'	10:10	"	"	—	—		—			—				—	—	—	—	changed to SV-317		
SV-318	8½	10:50	"	"	—	—		—			—				—	—	—	—			
SV-319	1	11:10	"	"	—	—		—			—				—	—	—	—			
SV-320	3'	11:30	"	"	—	—		—			—				—	—	—	—			
SV-321	5'	12:00	"	"	—	—		—			—				—	—	—	—			
SV-322	7.5'	12:25	"	"	—	—		—			—				—	—	—	—			
SV-323	10'	12:50	"	"	—	—		—			—				—	—	—	—			
SV-324	7'	11:05	"	"	—	—		—			—				—	—	—	—			
SV-303	7'	14:30	"	"	—	—		—			—				—	—	—	—			
SV-304	3'	14:50	"	"	—	—		—			—				—	—	—	—			
SV-305	5'	15:20	"	"	—	—		—			—				—	—	—	—			
SV-306	9'	15:45	"	"	—	—		—			—				—	—	—	—			
SV-307	5½	16:10	"	"	—	—		—			—				—	—	—	—			

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[signature]	5/19/99	[signature]	5-19-99
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (SIGNATURE)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ TEG DISPOSAL/$2.00@ RETURN PICKUP

SAMPLE RECEIPT	
Total No. of Containers	
Seals Intact? Y/N/NA	
Received Good Cond./Cold	
Notes:	

Laboratory Notes:

MMP 11/95

Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: BBC INT
DATE: 5-20-99
PAGE 1 OF
ADDRESS: 1324 W. Marland P.O Box 297 Hobbs, NM 88241
TEG PROJECT #: T3-990517
PHONE: (505) 397-6388
FAX: (505) 397-0397
LOCATION: RM TEG Hobbs, NM
CLIENT PROJECT #:
PROJECT MANAGER: CLIFF BRUNSON
COLLECTOR: TEG
DATE OF COLLECTION: 5-20-99

Sample Number	Depth	Time	Sample Type	Container Type	VOA 601/8010	VOA 602/8020	MTBE	Methone	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 Sig # dl	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	C1-C6	FIELD NOTES	Total No. of Containers	Laboratory Note No.
SV-308	1	8:00	VAPOR	5cc SxR	✓	✓		✓			✓				✓	✓	✓	✓			
SV-309	3'	8:25	"	"	✓	✓		✓			✓				✓	✓	✓				
SV-310	5'	8:50	"	"	✓	✓		✓			✓				✓	✓	✓				
SV-311	10'	9:15	"	"	✓	✓		✓			✓				✓	✓	✓				
SV-312	7'	9:45	"	"	✓	✓		✓			✓				✓	✓	✓				
SV-323	1'	10:10	"	"	✓	✓		✓			✓				✓	✓	✓		changed TO 325		
SV-326	3'	10:40	"	"	✓	✓		✓			✓				✓	✓	✓				
SV-327	5'	11:00	"	"	✓	✓		✓			✓				✓	✓	✓				
SV-328	10'	11:30	"	"	✓	✓		✓			✓				✓	✓	✓				
SV-329	11'	11:55	"	"	✓	✓		✓			✓				✓	✓	✓				
SV-330	1'	1305	"	"	✓	✓		✓			✓				✓	✓	✓				
SV-331	3'	13:30	"	"	✓	✓		✓			✓				✓	✓	✓				
SV-332	5'	1350	"	"	✓	✓		✓			✓				✓	✓	✓				
SV-333	10'	14:25	"	"	✓	✓		✓			✓				✓	✓	✓				
SV-334	10'	14:50	"	"	✓	✓		✓			✓				✓	✓	✓				

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[signature]	5/20/99	[signature]	5-20-99 14:50
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (SIGNATURE)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

[ ] TEG DISPOSAL/$2.00@ [ ] RETURN [ ] PICKUP

SAMPLE RECEIPT	
Total No. of Containers	
Seals Intact? Y/N/NA	
Received Good Cond./Cold	
Notes:	

Laboratory Notes:

MMP 11/95

Transglobal Environmental Geochemistry
CHAIN-OF-CUSTODY RECORD

P.O.# _____

CLIENT: BJC

DATE: 5-20-99 (5-21-99)

PAGE 1 OF

ADDRESS: 1224 Maryland P.O Box 297 Hobbs, NM

TEG PROJECT #: T3-990517

PHONE: (505) 397-6328

FAX: (505) 397-0397

LOCATION: Hobbs, NM

CLIENT PROJECT #:

PROJECT MANAGER: CLIFF BRUNSON

COLLECTOR: TEG

DATE OF COLLECTION: 5-21-99

Sample Number	Depth	Time	Sample Type	Container Type	ANALYSES: VOA 601/8010	VOA 602/8020	MTBE	Methane	TPH 418.1	TPH 8015 (gasoline)	TPH 8015 (diesel)	TPH 8015 (g & d)	PNA 610/8100	PEST/PCBs 8080	Oxygen	Nitrogen	Carbon Dioxide	C1-C6	FIELD NOTES	Total No. of Containers	Laboratory Note No.
SV-339	10'	8:25	VAPOR	5cc SyR.	✓	✓		✓			✓				✓	✓	✓	✓			
SV-335	1'	8:45	"	"	—	—		—			—				—	—	✓				
SV-336	3'	8:05	"	"	—	—		—			✓				✓	✓	✓	✓			
SV-337	5'	9:35	"	"	✓	✓		✓			✓				✓	✓	✓	✓			
SV-338	9'	10:05	"	"	✓	✓		✓			✓				✓	✓	✓	✓			
SV-340	1'	10:40	"	"	✓	✓		✓			✓				✓	✓	✓	✓			
SV-341	3'	11:00	"	"	✓	✓		✓			✓				✓	✓	✓	✓			
SV-342	5'	11:25	"	"	✓	✓		✓			✓				✓	✓	✓	✓			
SV-343	10'	11:45	"	"	✓	✓		✓			✓				✓	✓	✓	✓			
SV-344	10'	12:05	"	"	✓	✓		✓			✓				✓	✓	✓	✓			

RELINQUISHED BY (Signature) — DATE/TIME 5/21/99

RELINQUISHED BY (Signature) — DATE/TIME

RECEIVED BY (SIGNATURE) — DATE/TIME 12:05 5-21-99

RECEIVED BY (SIGNATURE) — DATE/TIME

SAMPLE RECEIPT

Total No. of Containers	
Seals Intact? Y/N/NA	
Received Good Cond./Cold	
Notes:	

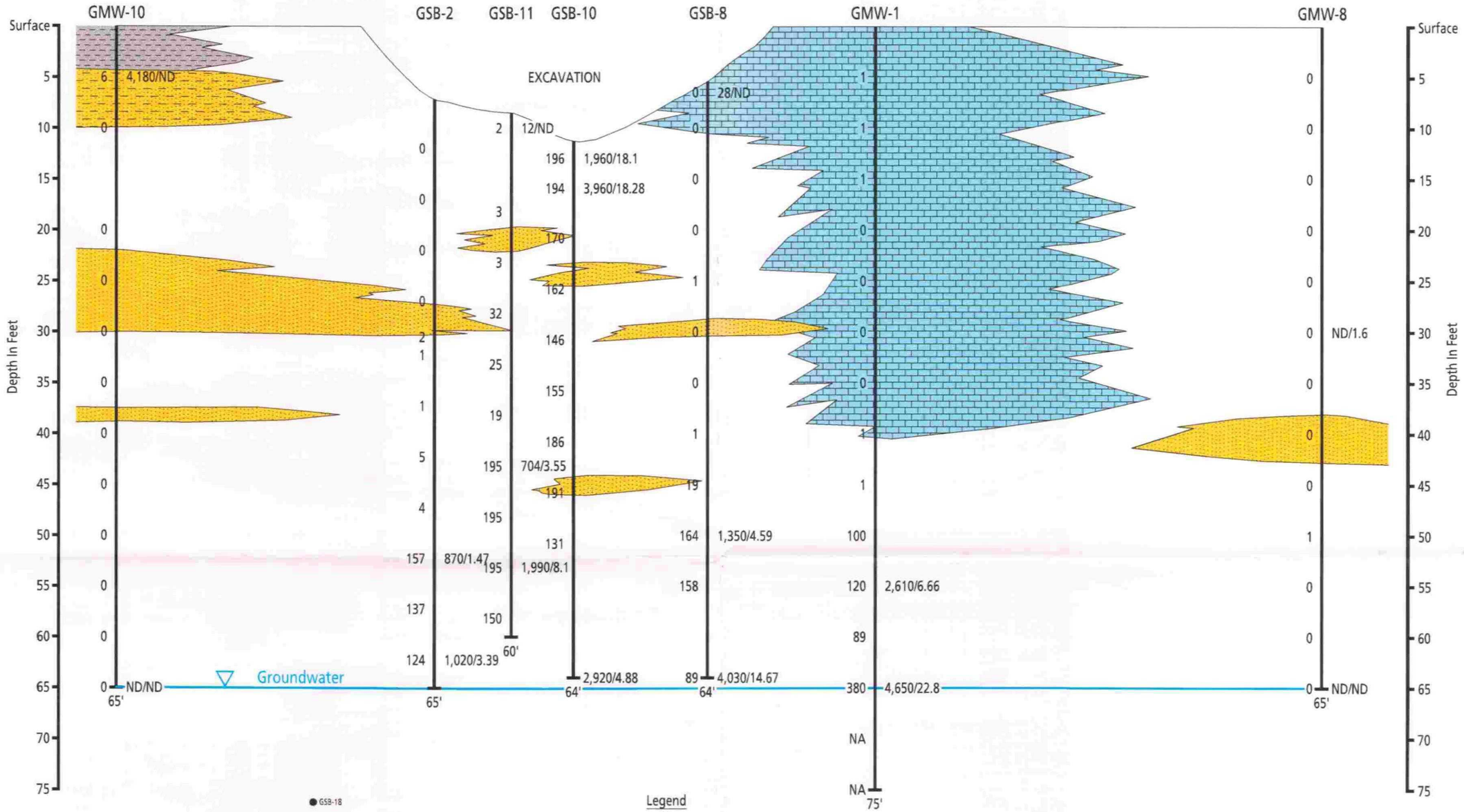
Laboratory Notes:

SAMPLE DISPOSAL INSTRUCTIONS

[ ] TEG DISPOSAL/$2.00@ RETURN [ ] PICKUP

MMP 11/95

A — A'


GMW-10
GSB-2
GSB-11
GSB-10
GSB-8
GMW-1
GMW-8
Surface
Depth In Feet
EXCAVATION
6 4,180/ND
0
0
0

B

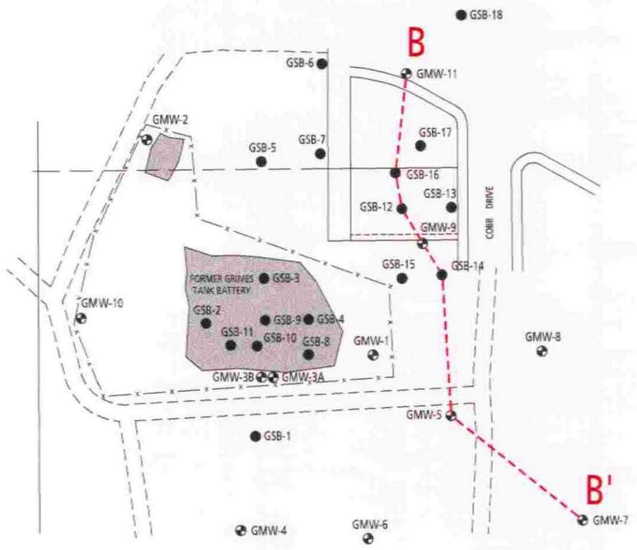
B'

GMW-11 | GSB-16 | GSB-12 | GMW-9 | GSB-14 | GMW-5 | GMW-7

Surface

Depth In Feet

	GMW-11	GSB-16	GSB-12	GMW-9	GSB-14	GMW-5	GMW-7
5	0	0	665/ND	0	0	0	0
10	0	0	.2	ND/ND	7	11,900/ND	0	ND/ND	0	0	0
15	0	0	0	0	0	0	0
20	.3	ND/ND	0	ND/ND	0	0	0	ND/ND	0	0	0
			20'				20'
25	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0
35	0	0	0	0	0	0	0
40	0	0	ND/0.583	0	0	0	0
		40'					
45	0	0	0	0	0	1	0
50	0	0	0	0	0	1	1	ND/ND
55	0	0	0	0	0	4	0
60	0	0	0	0	0	237	3,170/ND	0	0
65	0	ND/ND	Groundwater	180	206/ND	299	1,950/1.29	0	ND/ND
		65'		65'		65'		65'



Legend

Photoionization Detector Reading (Deflection Units) | TPH/BTEX Concentration (Milligrams/Kilogram)

Well Depth

Hard Sandstone

Limestone

ND -- Not Detected

Unless otherwise indicated, all lithology is semi-consolidated sand.

NOTE:
THE INFORMATION AND INTERPRETATION CONTAINED ON THIS MAP ARE PRELIMINARY AND MAY CHANGE BASED UPON COMMENTS FROM NMOCD.

BBC International, Inc./ARCADIS Geraghty & Miller, Inc.

GRIMES BATTERY
GEOLOGIC CROSS SECTION B – B'

LEA COUNTY, NEW MEXICO

31-014-00201

C

C'

GMW-2 | GSB-3 | GSB-9 | GSB-10 | GMW-3B | GSB-1 | GMW-4

Surface

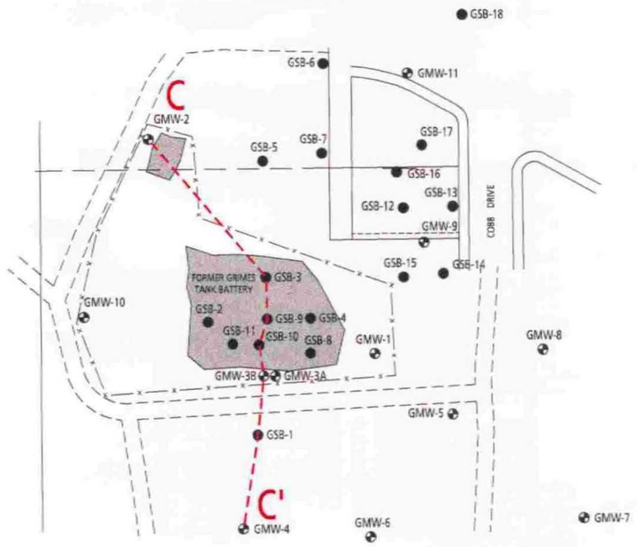
Depth In Feet

EXCAVATION

GMW-2	GSB-3	GSB-9	GSB-10	GMW-3B	GSB-1	GMW-4
1	3	1	196	0	0	0
1	4	4	194	0	0	0
1	2	122	170	0	0	0
0	3	178	162	0	0	0
1	2	162	146	0	0	0
0	1	168	155	2	0	0
0	6	186	168	4	0	0
0	25	168	191	1	0	0
0	207	102	131	25	0	0
0	190	98		294	116	0
0	168	176		294	145	0
0		266		178	120	0

GMW-2	GSB-3	GSB-9	GSB-10	GMW-3B	GSB-1	GMW-4
ND/ND	3,130/ND	24.1/ND	1,960/18.1		ND/ND	ND/ND
			3,960/18.28			
		2,050/7.41				
	1,310/2.821			3,000/12.1		
	771/9.1				1,770/0.857	
ND/ND		2,310/4.78	2,920/4.88	3,820/1.14	274/0.075	ND/ND
65'	60'	65'	64'	65'	65'	65'

Groundwater



Legend

Photoionization Detector Reading (Deflection Units) | TPH/BTEX Concentration (Milligrams/Kilogram)

Well Depth

Hard Sandstone

Limestone

ND -- Not Detected

Unless otherwise indicated, all lithology is semi-consolidated sand.

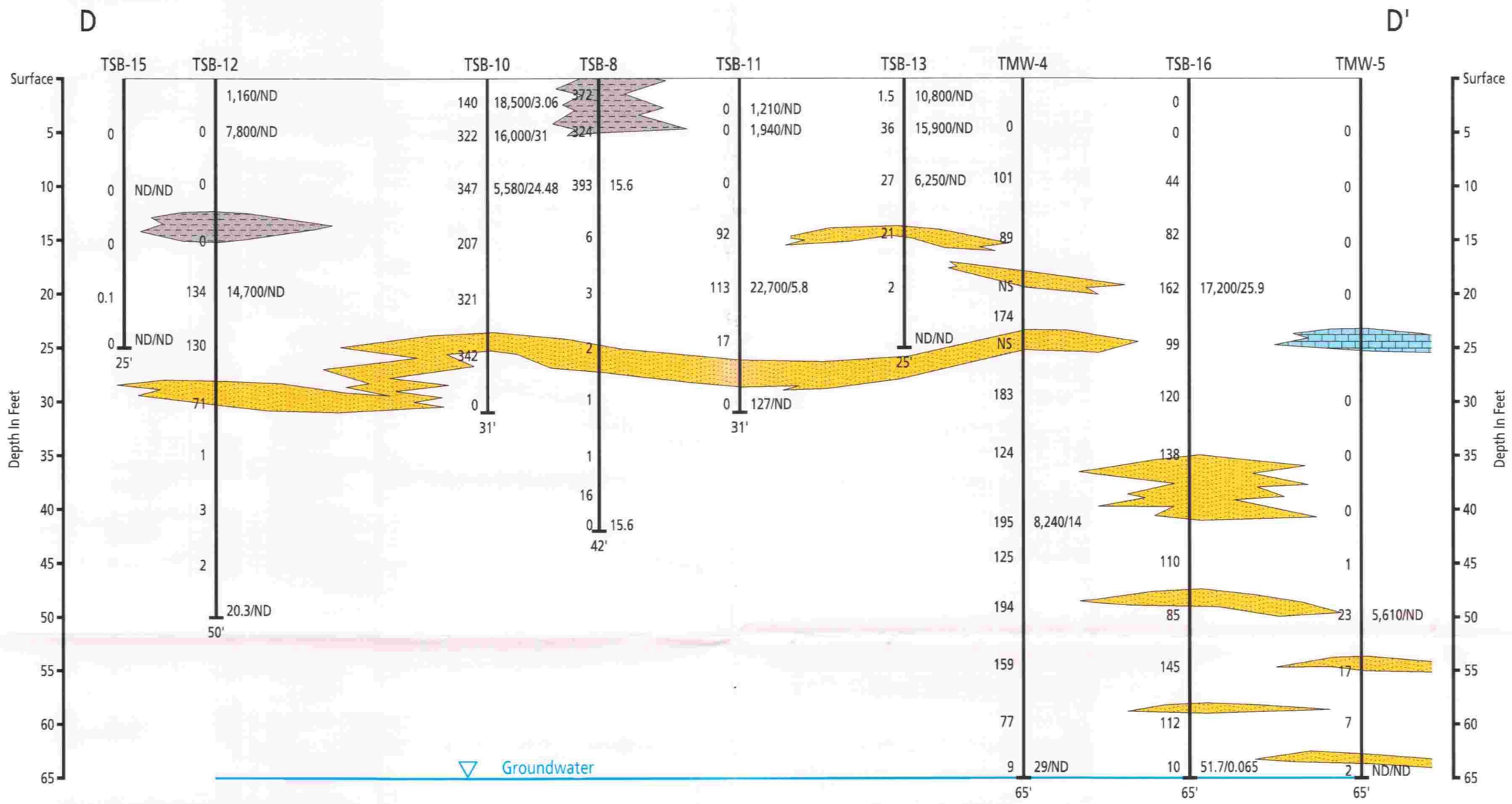
NOTE:
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BBC International, Inc./ARCADIS Geraghty & Miller, Inc.

GRIMES BATTERY
GEOLOGIC CROSS SECTION C – C'

LEA COUNTY, NEW MEXICO

31-014-00202





Legend

Photoionization Detector Reading (Deflection Units) | TPH/BTEX Concentration (Milligrams/Kilogram)

Well Depth

Clay

Hard Sandstone

Limestone

ND -- Not Detected
NS -- Not Sampled
Unless otherwise indicated, all lithology is semi-consolidated sand.

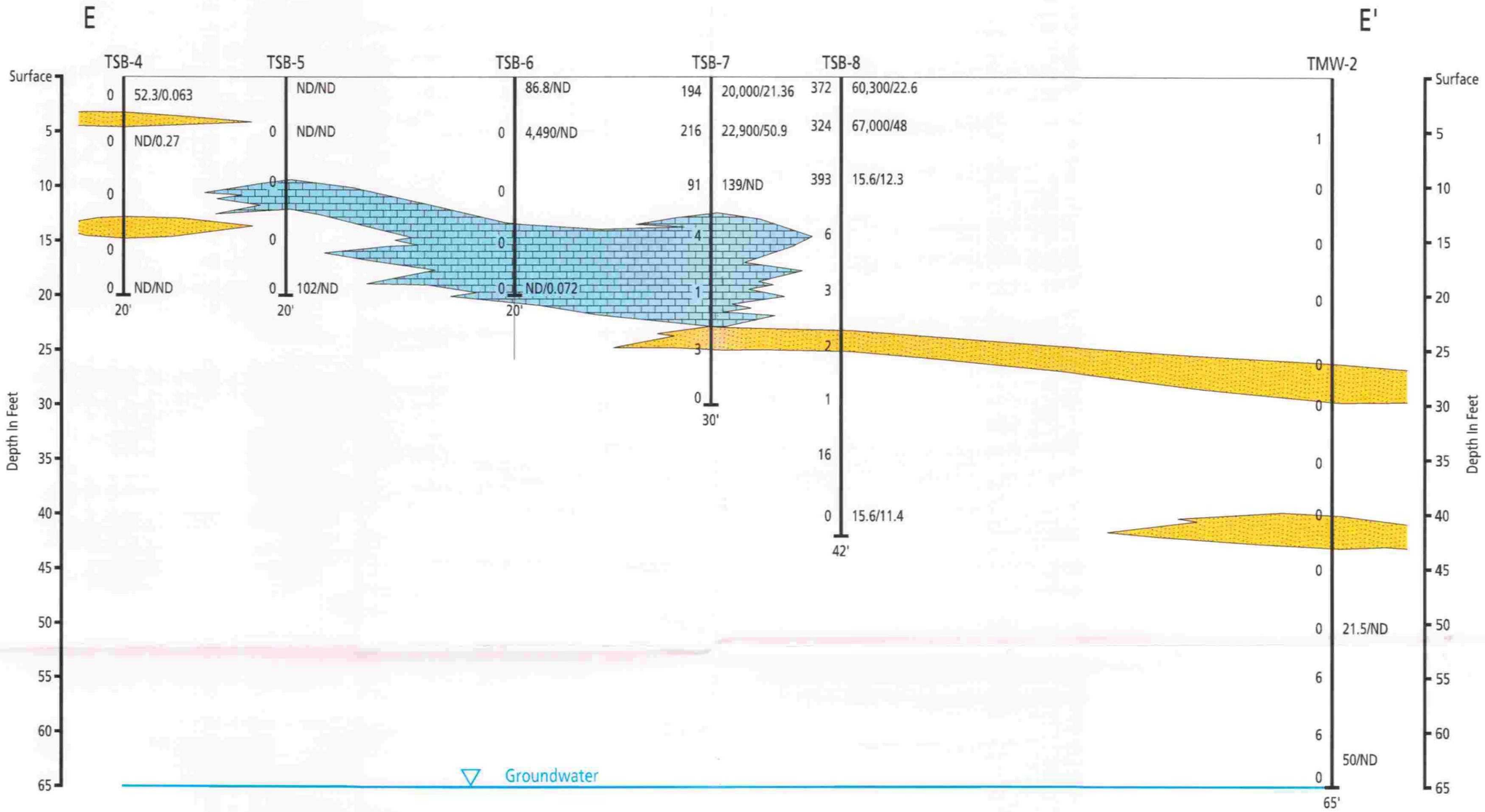
NOTE:
THE INFORMATION AND INTERPRETATION CONTAINED ON THIS MAP ARE PRELIMINARY AND MAY CHANGE BASED UPON COMMENTS FROM NMOCD.

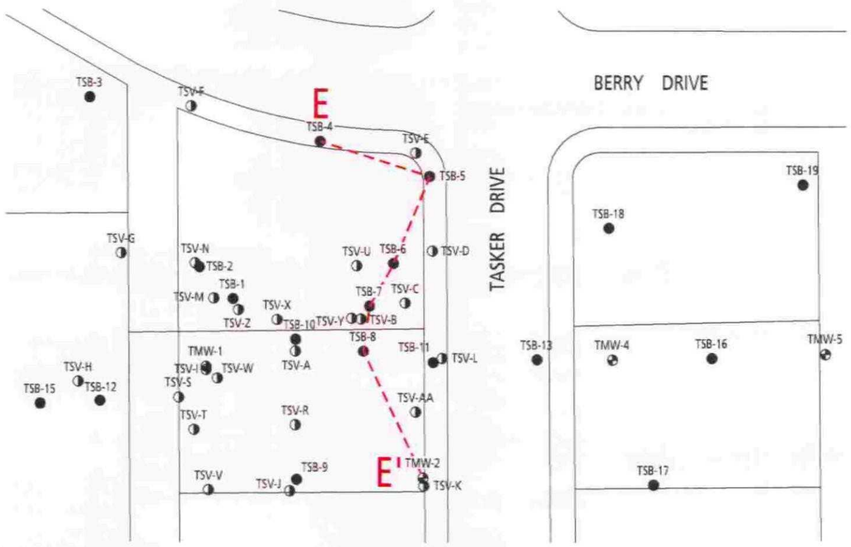
BBC International, Inc./ARCADIS Geraghty & Miller, Inc.

TASKER DRIVE
GEOLOGIC CROSS SECTION D – D'

LEA COUNTY, NEW MEXICO

31-014-00203





Legend

Photoionization Detector Reading (Deflection Units) | TPH/BTEX Concentration (Milligrams/Kilogram)

Well Depth

Hard Sandstone

Limestone

ND -- Not Detected

Unless otherwise indicated, all lithology is semi-consolidated sand.

NOTE:
THE INFORMATION AND INTERPRETATION CONTAINED ON THIS MAP ARE PRELIMINARY AND MAY CHANGE BASED UPON COMMENTS FROM NMOCD.

BBC International, Inc./ARCADIS Geraghty & Miller, Inc.

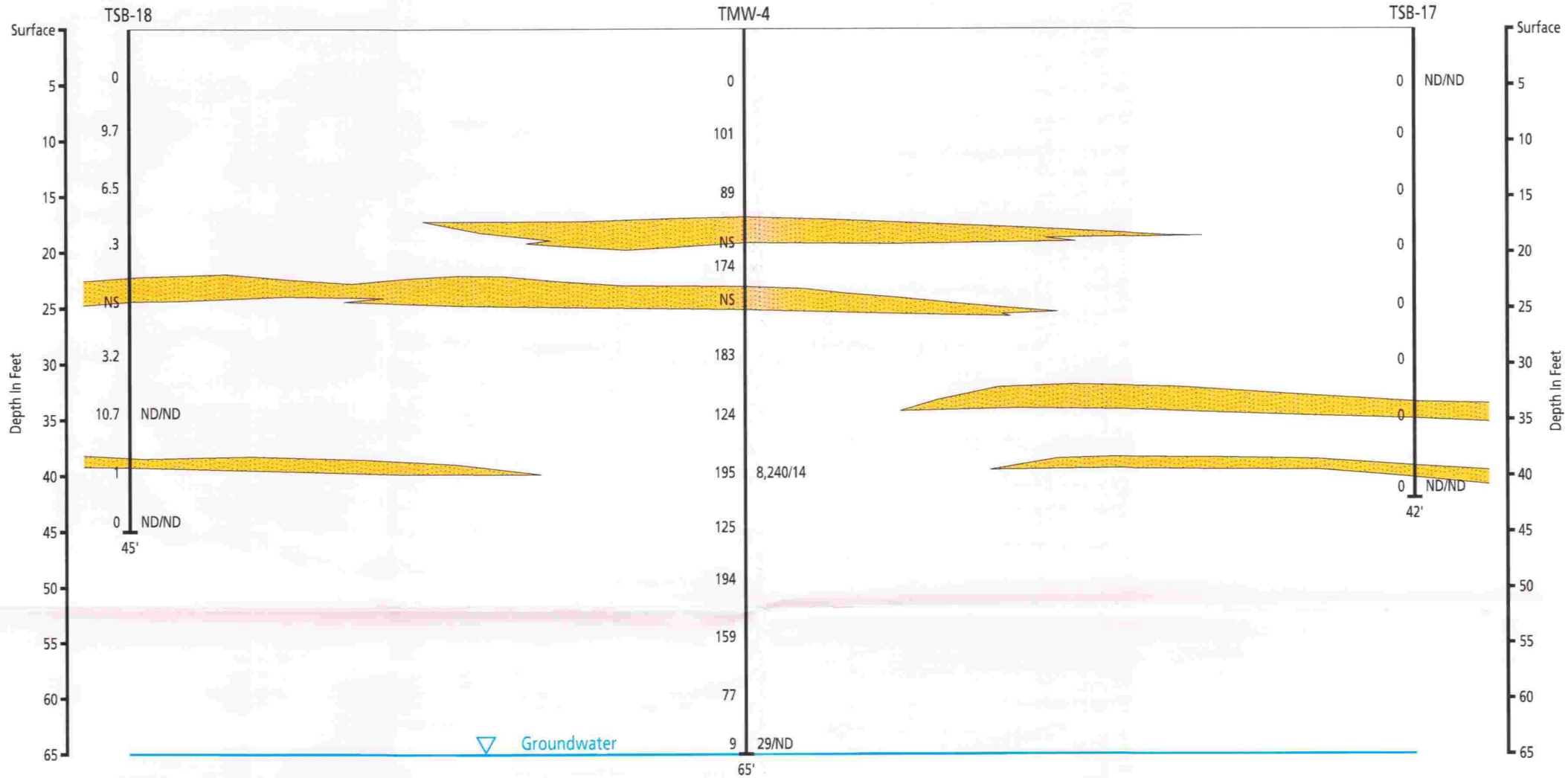
TASKER DRIVE
GEOLOGIC CROSS SECTION E – E'

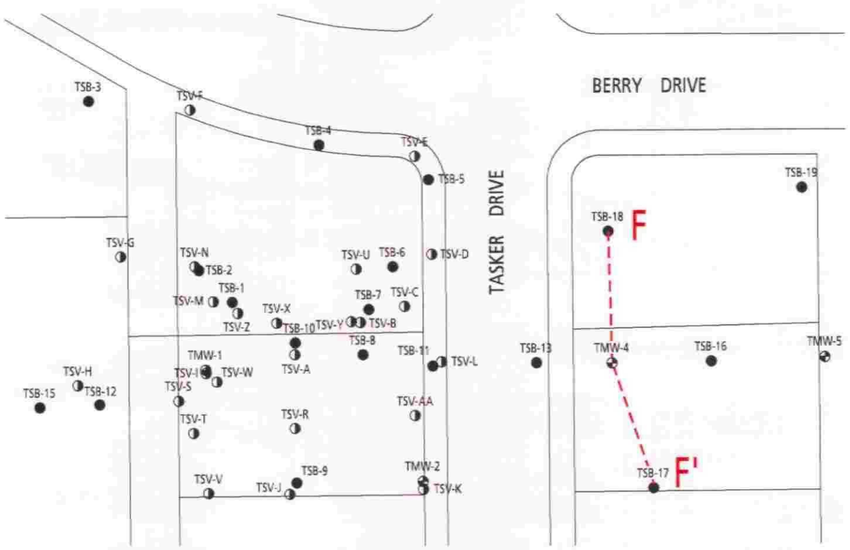
LEA COUNTY, NEW MEXICO

31-014-00204

F

F'





Legend

Photoionization Detector Reading (Deflection Units) | TPH/BTEX Concentration (Milligrams/Kilogram)

Well Depth

Hard Sandstone

ND -- Not Detected

Unless otherwise indicated, all lithology is semi-consolidated sand.

NOTE:
THE INFORMATION AND INTERPRETATION CONTAINED ON THIS MAP ARE PRELIMINARY AND MAY CHANGE BASED UPON COMMENTS FROM NMOCD.

BBC International, Inc./ARCADIS Geraghty & Miller, Inc.

TASKER DRIVE
GEOLOGIC CROSS SECTION F – F'

LEA COUNTY, NEW MEXICO

31-014-00205