Structural Stability Inspection:

POND	COMMENT
Sediment	All ponds were dry and in good order. No significant erosion or structural failure indications are apparent on any of the pond embankments. Upper and Lower Refuse and Clear Water Ponds have been inactive since 1985.
Roadside	
Auxiliary	
Dryer	
Pipeline Slurry	
Upper Refuse	
Lower Refuse	
Clear Water	

Inspected by: Melvin A Coonrod; Compliance Monitor, EIS

M.A. Coonrod/o.s. 3/27/95

Date

Nevada Electric Investment Company
Wellington Loadout Site

MSHA I.D. # 42-00099

1st Quarter 1996 *Quarterly Pond Report*

Structural Stability Inspection:

POND

Sediment	*Pipeline Slurry*
Roadside	*Upper Refuse*
Auxiliary	*Lower Refuse*
Dryer	*Clear Water*

COMMENT

See Individual Reports.

REGISTERED PROFESSIONAL ENGINEER
DAN W GUY
No. 154168
STATE OF UTAH

Dan W. Guy, P.E.
President
Blackhawk Engineering, Co.

3/21/96
Date

CASTLE VALLEY RESOURCES

SEDIMENTATION POND INSPECTION REPORT

POND: *Roadside Pond* QUARTER: *1st*

DATE: *03/21/96*

Inlet & Outlet Conditions: *O.K. - Minor Erosion on Inlet.*

Erosion Problems: *Inlet Rip-Rapped. Minor erosion on West End near Topsoil Berm.*

Embankment Stability: *O.K.*

Water Level: *Dry.*

Weather Conditions: *Warm and Clear.*

Additional Comments:

Time of Inspection: *12:00 p.m.*

Person Conducting Inspection: *Dan W. Guy*

CASTLE VALLEY RESOURCES

SEDIMENTATION POND INSPECTION REPORT

POND: *Auxillary Pond* QUARTER: *1st*

DATE: *03/21/96*

Inlet & Outlet Conditions: *Sediment above inlet culvert in Upper Cell. Minor erosion on upper inlet.*

Erosion Problems: *None Noted.*

Embankment Stability: *O.K.*

Water Level: *Upper Cell Dry. Lower - 1' of Water.*

Weather Conditions: *Warm and Clear.*

Additional Comments: *Incised Pond.*

Time of Inspection: *12:10 p.m.*

Person Conducting Inspection: *Dan W. Guy*

CASTLE VALLEY RESOURCES

SEDIMENTATION POND INSPECTION REPORT

POND: *Dryer Pond* QUARTER: *1st*

DATE: *03/21/96*

Inlet & Outlet Conditions: *O.K.*

Erosion Problems: *Minor rills on east bank.*

Embankment Stability: *O.K.*

Water Level: *Dry.*

Weather Conditions: *Warm and Clear.*

Additional Comments: *Incised Pond.*

Time of Inspection: *12:15 p.m.*

Person Conducting Inspection: *Dan W. Guy*

CASTLE VALLEY RESOURCES

SEDIMENTATION POND INSPECTION REPORT

POND: *Loadout Sed. Pond* QUARTER: *1st*

DATE: *03/21/96*

Inlet & Outlet Conditions: *O.K.*

Erosion Problems: *Minor on Northwest end and South end.*

Embankment Stability: *O.K.*

Water Level: *Dry.*

Weather Conditions: *Warm and Clear.*

Additional Comments: *Mostly Incised.*

Time of Inspection: *12:20 p.m.*

Person Conducting inspection: *Dan W. Guy*

CASTLE VALLEY RESOURCES

SEDIMENTATION POND INSPECTION REPORT

POND: *Pipeline Pond* QUARTER: *1st*

DATE: *03/21/96*

Inlet & Outlet Conditions: *O.K.*

Erosion Problems: *None.*

Embankment Stability: *O.K.*

Water Level: *Dry.*

Weather Conditions: *Warm and Clear.*

Additional Comments: *Open Channel Spillway.*

Time of Inspection: *1:00 p.m.*

Person Conducting Inspection: *Dan W. Guy*

CASTLE VALLEY RESOURCES

SEDIMENTATION POND INSPECTION REPORT

POND: *Upper Refuse Pond* QUARTER: *1st*

DATE: *03/21/96*

Inlet & Outlet Conditions: *O.K.*

Erosion Problems: *None.*

Embankment Stability: *O.K.*

Water Level: *Dry.*

Weather Conditions: *Warm and Clear.*

Additional Comments: *Not a Sediment Pond.*

Time of Inspection: *12:45 p.m.*

Person Conducting Inspection: *Dan W. Guy*

CASTLE VALLEY RESOURCES

SEDIMENTATION POND INSPECTION REPORT

POND: *Lower Refuse Pond* QUARTER: *1st*

DATE: *03/21/96*

Inlet & Outlet Conditions: *O.K.*

Erosion Problems: *None.*

Embankment Stability: *O.K.*

Water Level: *Dry.*

Weather Conditions: *Warm and Clear.*

Additional Comments:

Time of Inspection: *1:10 p.m.*

Person Conducting Inspection: *Dan W. Guy*

CASTLE VALLEY RESOURCES

SEDIMENTATION POND INSPECTION REPORT

POND: *Clear Water Pond* QUARTER: *1st*

DATE: *03/21/96*

Inlet & Outlet Conditions: *O.K.*

Erosion Problems: *None.*

Embankment Stability: *O.K.*

Water Level: *Dry.*

Weather Conditions: *Warm and Clear.*

Additional Comments: *Not a Sediment Pond.*

Time of Inspection: *1:15 p.m.*

Person Conducting Inspection: *Dan W. Guy*

Structural Stability Inspection:

POND	COMMENT
Sediment	All Ponds were dry and in good order. No significant erosion or structural failure indications are apparent on any of the pond embankments. Upper and lower Refuse and Clear Water Ponds have been inactive since 1985.
Roadside	
Auxiliary	
Dryer	
Pipeline Slurry	Inspected on 3/26/1996
Upper Refuse	Inspected by [illegible]
Lower Refuse	
Clear Water	

Certification by: _____ _____
Date

Nevada Electric Investment Company
Wellington Loadout Site

MSHA I.D. # 42-00099

Quarterly Pond Report

Structural Stability Inspection:

POND	COMMENT
Sediment	All ponds appear to be operating properly. A small amount of water is present in the Sediment Pond and the Auxiliary Pond - all other ponds are dry. No Significant erosion or structural failure indications are apparent on any of the pond embankments. Upper and Lower Refuse and Clear Water Ponds have been inactive since 1985.
Roadside	
Auxiliary	
Dryer	
Pipeline Slurry	
Upper Refuse	
Lower Refuse	
Clear Water	

REGISTERED PROFESSIONAL ENGINEER
DAN W. GUY
No. 154168
STATE OF UTAH

Dan W. Guy, P.E.
President
Blackhawk Engineering, Co.

4/28/95
Date

Nevada Electric Investment Company
Wellington Loadout Site

MSHA I.D. #42-00099

Quarterly Pond Report

This report addresses the following ponds:

POND	CAPACITY (cubic feet)	INSTRUMENTATION
Sediment #1	74,592	3 Depth Poles
Roadside	24,603	None
Auxiliary	34,265	None
Dryer	9,747	None
Pipeline Slurry	47,044	None
Upper Refuse	Unknown	None
Lower Refuse	52,272,000	None
Clear Water	8,058,600	None

PONDS	SEDIMENT (cubic feet)	WATER (cubic feet)	EXISTING STORAGE CAPACITY (%)
Sediment	None	Dry	100
Roadside	144	Dry	99
Auxiliary	464	Dry	99
Dryer	26	Dry	100
Pipeline Slurry	70	Dry	100
Upper Refuse	Unknown	Dry	Unknown
Lower Refuse	43,560,000	Dry	17
Clear Water	Unknown	Dry	N/A

1 Estimated

Fires in Impoundments: No evidence of fires or heat was noted.

Nevada Electric Investment Company
Wellington Loadout Site

MSHA I.D. # 42-00099

Coal Refuse Piles - Quarterly Report

Site Name: Wellington Loadout Site

Refuse Pile:	*Pile I.D. #:*
Pond Refuse Pile	*1211-UT-09-00099-05*
Plant Refuse Pile	*1211-UT-09-00099-01*

Water impounding against toe: None

Fires on piles: None

Seepage, cracks, erosion problems or any other comments pertaining to the stability of the pile: No significant erosion noted. Piles appear to be stable and dry.

I have performed the above inspection on these refuse piles and do hereby certify it to be a true and accurate representation of the piles at this time.

REGISTERED PROFESSIONAL ENGINEER
DAN W. GUY
No. 184188
STATE OF UTAH

Dan W. Guy, P.E.
President
Blackhawk Engineering, Co.

4/28/95
Date

Nevada Electric Investment Company
Genwal Coal Company
P.O. Box 1420
Huntington, Utah 84528

MSHA I.D. #42-00099

Coal Refuse Piles

Quarterly Report

SITE NAME: Wellington Loadout Site

Refuse Pile	**Pile ID#**
Pond Refuse Pile	1211-UT-09-00099-05
Plant Refuse Pile	1211-UT-09-00099-01

Water impounding against toe: None

Fires on piles: None

Seepage, cracks, erosion problems or any other comments pertaining to the stability of the pile: Minor evidence of erosion on out slopes were noted. Facilities appear stable. Vegetative test plot largely dormant, no apparent change in vegetative cover was observed.

To the best of my knowledge, I do hereby certify that all work and maintenance performed on the above refuse pile was done according to the approved design and plans.

M.A. Coonrod/a.s.

M.A. Coonrod
Compliance Monitor, EIS

3/27/95
Date

Structural Stability Inspection:

POND	COMMENT
Sediment	All Ponds were dry and in good order. No significant erosion or structural failure indications are apparent on any of the pond embankments. Upper and lower Refuse and Clear Water Ponds have been inactive since 1985.
Roadside	
Auxiliary	
Dryer	
Pipeline Slurry	
Upper Refuse	
Lower Refuse	
Clear Water	

Date 9/14/95

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 6/6	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	Stable	None	No	
Lower Cell	"	"	"	
Clear Water	"	"	"	

Signature

Date: 6/13	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	None	NO	No Change
Lower Cell	"	"	"	"
Clear Water	"	"	"	"

Signature

Date: 6/20	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	None	No	No Change
Lower Cell	"	"	"	"
Clear Water	"	"	"	"

Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 5-13-94	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	Yes	no	no	no change
Lower Cell	yes	no	no	"
Clear Water	yes	no	no	"

Signature

Date: 5/21/94	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	No change
Lower Cell	"	"	"	"
Clear Water	"	"	"	"

Signature

Date: 5/30/94	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	None	no	No change
Lower Cell	yes	"	"	"
Clear Water	yes	"	"	"

Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date:	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	Yes	None	No	No Flow
Lower Cell	"	"	"	"
Clear Water	"	"	"	"

Signature

Date:	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell				
Lower Cell				
Clear Water				

Signature

Date:	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell				
Lower Cell				
Clear Water				

Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 4/19/94	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	None
Lower Cell	yes	no	no	"
Clear Water	yes	no	no	"

Signature

Date: 4/28/94	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	None
Lower Cell	yes	no	no	"
Clear Water	yes	no	no	"

Signature

Date: 8/2/94	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	Yes	No	No	No Change
Lower Cell	yes	No	No	
Clear Water	yes	No	No	

Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

DATE: 3/31/94	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
UPPER CELL	yes	None	No	No Change
LOWER CELL	"	"	"	"
CLEAR WATER	"	"	"	"

Signature

DATE: 4/4/94	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
UPPER CELL	Stable	None	Dry	No Change
LOWER CELL	"	"	"	"
CLEAR WATER	"	"	"	"

Signature

DATE: 4/10/94	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
UPPER CELL	Stable	None	Dry	None
LOWER CELL	"	"	"	"
CLEAR WATER	"	"	"	"

Signature

DATE:	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
UPPER CELL				
LOWER CELL				
CLEAR WATER				

Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 3-31-94	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	Yes	No	No	
Lower Cell	Yes	No	No	
Clear Water	Yes	No	No	

Larry W. Sol
Signature

Date 4/4/94	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	Yes	No	No	— None —
Lower Cell	Yes	No	No	—
Clear Water	Yes	No	No	

John P. Loomis
Signature

Date: 4/13/94	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	Yes	No	No	—
Lower Cell	Yes	No	No	—
Clear Water	Yes	No	No	—

Larry W. Sol
Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 3-11-94	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date: 3-17-94	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date: 3-25-94	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	Yes	No	No	
Lower Cell	Yes	No	No	
Clear Water	Yes	No	No	

Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 2-18-94	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Candido Manzanar
Signature

Date: 2-25-94	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	—
Clear Water	yes	no	no	

Candido Manzanar
Signature

Date: 3-4-94	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Candido Manzanar
Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 1-28-94	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Candida Manjarrez
Signature

Date: 2-4-94	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Candida Manjarrez
Signature

Date: 2-11-94	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Candida Manjarrez
Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 1-7-94	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date: 1-14-94	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date: 1-21-94	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 12-23-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date: 12-31-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date:	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell				
Lower Cell				
Clear Water				

Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 12-23-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date: 12-31-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date:	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell				
Lower Cell				
Clear Water				

Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 12-3-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date: 12-10-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date: 12-17-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 11-12-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date: 11-19-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date: 11-24-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 10-22-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	Yes	No	No	
Lower Cell	Yes	No	No	
Clear Water	Yes	No	No	

Signature

Date: 10-29-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	Yes	No	No	
Lower Cell	Yes	No	No	
Clear Water	Yes	No	No	

Signature

Date: 11-5-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 10-1-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Candido Manzanares
Signature

Date: 10-9-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Candido Manzanares
Signature

Date: 10-15-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Candido Manzanares
Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

ate: 9/10/93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
pper ell	yes	no	no	
ower ell	yes	no	no	
lear ater	yes	no	no	

Candido Manzanares
Signature

ate: 9-17-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
pper ell	yes	no	no	
ell	yes	no	no	
lear ater	yes	no	no	

Candido Manzanares
Signature

ate: 9-24-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
pper ell	yes	no	no	
ower ell	yes	no	no	
lear ater	yes	no	no	

Candido Manzanares
Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

te: 8-20-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
per ll	Yes	NO	NO	
wer ll	Yes	NO	NO	
ear ter	Yes	NO	NO	

Signature

te: 8-27-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
per ll	yes	no	no	
ll	yes	no	no	
ear ter	yes	no	no	

Signature

te: 9-2-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
per ll	yes	no	no	
wer ll	yes	no	no	
ear ter	yes	no	no	

Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 7-30-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Candace Mangano
Signature

Date: 8-6-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Candace Mangano
Signature

Date: 8-13-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Candace Mangano
Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 7-9-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Candido Mangaman
Signature

Date: 7-16-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Candido Mangaman
Signature

Date: 7-23-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Candido Mangaman
Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 6-18-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date: 6-25-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	Yes	No	No	
[illegible]er [illegible]l	Yes	No	No	
Clear Water	Yes	No	No	

Signature

Date: 7-2-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 6-18-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date: 6-25-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	Yes	No	NO	
Lower Cell	Yes	NO	NO	
Clear Water	Yes	NO *	NO	

Jim Alcon
Signature

Date: 7-2-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 5-2-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date: 6-3-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date: 6-11-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

ate: 5-7-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
pper ell	yes	no	no	
ower ell	yes	no	no	
lear ater	yes	no	no	

Signature

Date: 5-14-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
wer Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date: 5-21-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 4-16-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date: 4-23-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date: 4-29-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	NO	NO	
Lower Cell	yes	NO	NO	
Clear Water	yes	NO	NO	

Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 3-26-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date: 4-2-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date: 4-9-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 3-26-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date: 4-2-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date: 4-9-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 3-5-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date:	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell 3-12-93	Yes	No	No	
Lower Cell	Yes	No	No	
Clear Water	Yes	No	No	

Signature

Date: 3-19-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 2-12-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	Snow Cover
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date: 2-19-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	Snow Cover
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

Date: 2-26-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	yes	no	no	Snow Cover
Lower Cell	yes	no	no	
Clear Water	yes	no	no	

Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 1-22-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	Yes	No	No	1½' Snow Cover
Lower Cell	Yes	No	No	"
Clear Water	Yes	No	No	"

Signature

Date: 1-28-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	Yes	No	No	1½' Snow Cover
Lower Cell	Yes	No	No	"
Clear Water	Yes	No	No	"

Signature

Date: 2-5-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	Yes	No	No	Snow Cover
Lower Cell	Yes	No	No	" "
Clear Water	Yes	No	No	

Signature

CASTLE VALLEY RESOURCES / GENWAL COAL COMPANY
WEEKLY MSHA POND INSPECTIONS

Date: 12-31-92	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	Yes	No	No	
Lower Cell	Yes	No	No	
Clear Water	Yes	No	No	

Signature

Date: 1-8-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	Yes	No	No	
Lower Cell	Yes	No	No	
Clear Water	Yes	No	No	

Signature

Date: 1-15-93	BANKS STABLE	VISIBLE HAZARDS	WATER PRESENT	COMMENTS
Upper Cell	Yes	No	No	
Lower Cell	Yes	No	No	
Clear Water	Yes	No	No	

Signature

POND INSPECTION REPORT

POND: Clear Water

LOCATION: Wilmington

ITEM	REMARKS
(1) Potential Safety Hazrads	None
(2) Slope Stability	Stable
(3) Erosion	None
(4) Construction and Maintenance Performance Standards	Good
(5) Recommendations/Comments	(Pond Dry) evidence of small Pollutant result of Heavy Storm

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

J. A. Connor

8/4/89
Date

POND INSPECTION REPORT

POND: [illegible] Pond

LOCATION: Wellington Edit

ITEM	REMARKS
(1) Potential Safety Hazards	None
(2) Slope Stability	Stable
(3) Erosion	None
(4) Construction and Maintenance Performance Standards	Good
(5) Recommendations/Comments	[illegible]

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[illegible]

8/4/89
Date

RECEIVED
OCT 06 1989
DIVISION OF
OIL, GAS & MINING

POND INSPECTION REPORT

POND: [illegible]

LOCATION: [illegible]

ITEM	REMARKS
(1) Potential Safety Hazrads	None
(2) Slope Stability	[illegible]
(3) Erosion	None
(4) Construction and Maintenance Performance Standards	[illegible] - Trench no change
(5) Recommendations/Comments	None -

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[illegible]

8/4/89
Date

POND INSPECTION REPORT

POND: Low Pond

LOCATION: E. Wellington

ITEM	REMARKS
(1) Potential Safety Hazrads	None
(2). Slope Stability	Stable
(3) Erosion	None
(4) Construction and Maintenance Performance Standards	Good
(5) Recommendations/Comments	Dry

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

J. M. Cognos

7/29/89
Date

POND INSPECTION REPORT

POND: Up. Sh. Pond

LOCATION: E Wilmington

ITEM	REMARKS
(1) Potential Safety Hazrads	None
(2). Slope Stability	Stable
(3) Erosion	None
(4) Construction and Maintenance Performance Standards	Good
(5) Recommendations/Comments	None

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[illegible signature]

7/29/89
Date

POND INSPECTION REPORT

POND: [illegible]

LOCATION: [illegible]

ITEM	REMARKS
(1) Potential Safety Hazrads	None
(2). Slope Stability	Stable
(3) Erosion	None
(4) Construction and Maintenance Performance Standards	(trend unchanged)
(5) Recommendations/Comments	Report signed - Owner Ownership

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[illegible]

7/29/89
Date

POND INSPECTION REPORT

POND: [illegible]

LOCATION: Wellington

ITEM	REMARKS
(1) Potential Safety Hazrads	None
(2) Slope Stability	None (Trench dtl in evidence)
(3) Erosion	None
(4) Construction and Maintenance Performance Standards	Good
(5) Recommendations/Comments	Pond Okay

I have performed the above inspection ~~on~~ this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[illegible]

7/24/89
Date

POND INSPECTION REPORT

POND: Tower

LOCATION: Wellington

ITEM	REMARKS
(1) Potential Safety Hazards	None
(2). Slope Stability	Stable
(3) Erosion	None
(4) Construction and Maintenance Performance Standards	Good
(5) Recommendations/Comments	None - Dry

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[illegible]

7/21/89
Date

POND INSPECTION REPORT

POND: [illegible]

LOCATION: [illegible]

ITEM	REMARKS
(1) Potential Safety Hazreds	None
(2). Slope Stability	Stable
(3) Erosion	None
(4) Construction and Maintenance Performance Standards	Good
(5) Recommendations/Comments	None Day.

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[illegible]

2/24/89
Date

POND INSPECTION REPORT

POND: [illegible]

LOCATION: [illegible]

ITEM	REMARKS
(1) Potential Safety Hazrads	None
(2). Slope Stability	[illegible]
(3) Erosion	None
(4) Construction and Maintenance Performance Standards	[illegible]
(5) Recommendations/Comments	[illegible]

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[illegible]

7/15/84
DATE

POND INSPECTION REPORT

POND: Upper Spring

LOCATION: East Washington

ITEM	REMARKS
(1) Potential Safety Hazrads	None
(2) Slope Stability	Stable
(3) Erosion	None
(4) Construction and Maintenance Performance Standards	Good
(5) Recommendations/Comments	None

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

W. C. Connor

7/15/89
Date

POND INSPECTION REPORT

POND: [illegible] LOCATION: [illegible]

ITEM	REMARKS
(1) Potential Safety Hazrads	None
(2). Slope Stability	[illegible]
(3) Erosion	None
(4) Construction and Maintenance Performance Standards	[illegible]
(5) Recommendations/Comments	None

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the [illegible] at this time.

[illegible]

7/15/99
Date

Refuse Pile Inspection Report

Location WELLINGTON PREP. PLANT - SOUTH WEST PILE

Property KAISER COAL

RECEIVED
JUL 18 1989
DIVISION OF OIL, GAS & MINING

Stability:

Surface STABLE - SOME UNCOMPACTED PILES

Slopes STABLE; SMALL RECLAIMED AREA ON EAST SLOPE.

Impoundments NONE

Compaction APPEARS ADEQUATE OTHER THAN SURFACE PILES.

Comments PILE APPEARS STABLE. ABOUT 16 SMALL MOUNDS HAVE BEEN PLACED ON SURFACE AND NOT REGRADED AT THIS TIME.

The above conditions are as noted on this date JULY 9, 1989

Time 10:30 A.M.

Inspected by Dan W. Guy

Certified by Dan W. Guy

REGISTERED PROFESSIONAL ENGINEER
No. 74548
DAN W. GUY
7/9/89
STATE OF UTAH

Refuse Pile Inspection Report

Location WELLINGTON PREP. PLANT - NORTH EAST PILE

Property KAISER COAL

RECEIVED
JUL 18 1989
DIVISION OF OIL, GAS & MINING

Stability:

Surface STABLE

Slopes STABLE

Impoundments IMPOUNDMENT POTENTIAL AT TOE - DRY AT THIS TIME

Compaction APPEARS ADEQUATE

Comments PILE APPEARS STABLE. NO OBVIOUS PROBLEMS OR RECENT ACTIVITY.

The above conditions are as noted on this date JULY 9, 1989

Time 11:15 A.M.

Inspected by Dan W. Guy

Certified by Dan W. Guy

REGISTERED PROFESSIONAL ENGINEER
No. 4548
DAN W. GUY
7/9/89
STATE OF UTAH

POND INSPECTION REPORT

POND: Up. L. Pond Pipeline - clear W
Lower L. Pond - atw - (No change) LOCATION: Well -

ITEM	REMARKS
(1) Potential Safety Hazrads	None
(2). Slope Stability	Stable *
(3) Erosion	None
(4) Construction and Maintenance Performance Standards	Rip Rap Trench - along edge of Lower Dike - No Change
(5) Recommendations/Comments	Pond Dry

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[signature]

7/6/89
Date

Refuse Pile Inspection Report

Location Wellington Disp. Site - South west C. Refuse

Property Kaiser Coal

RECEIVED
JUL 18 1989
DIVISION OF OIL GAS & MINING

Stability:

Surface Stable - app. 16 piles (8 yd & 10 yd mounds)

Slopes Stable - (no evidence of slumping)

Impoundments None -

Compaction Good - Other than noted on surface

Comments There are a number of small piles of material that have not been graded out on the surface - (constitute no hazard)

The above conditions are as noted on this date 30th of June 19 89

Time 10:45.

Inspected by [signature]

Certified by [signature]

REGISTERED PROFESSIONAL ENGINEER
No. 4848
DAN W. GUY
6/30/89
STATE OF UTAH

Re[illegible]se Pile Inspection Report

Location Wellington Dry Fork North East

Property Kaiser Coal

RECEIVED
JUL 18 1989
DIVISION OF OIL, GAS & MINING

Stability:

Surface Stable

Slopes Stable

Impoundments At toe of Pile - (dry)

Compaction Good

Comments Pile appears not to have been utilized over several years

The above conditions are as noted on this date 30 day June 19 89

Time 9:30.

Inspected by [signature]

Certified by [signature]

REGISTERED PROFESSIONAL ENGINEER
No. 4548
DAN W. GUY
6/30/89
STATE OF UTAH

POND INSPECTION REPORT

POND: [illegible]

LOCATION: Wellington

ITEM	REMARKS
(1) Potential Safety Hazards	None
(2) Slope Stability	Stable
(3) Erosion	Erosion
(4) Construction and Maintenance Performance Standards	Good evidence of how work Pond in good condition
(5) Recommendations/Comments	Pond dry - No Problems

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

John L. Connor

6/28/1989.
Date

POND INSPECTION REPORT

POND: Rd Side

LOCATION: Willingdon

ITEM	REMARKS
(1) Potential Safety Hazards	None Pond covered
(2) Slope Stability	Stable
(3) Erosion	Minor on south end
(4) Construction and Maintenance Performance Standards	Good
(5) Recommendations/Comments	Pond Dry

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[illegible signature]

6/28/89
Date

POND INSPECTION REPORT

POND: Park.

LOCATION: Willington

ITEM	REMARKS
(1) Potential Safety Hazards	None
(2) Slope Stability	Stable
(3) Erosion	Minor - on North Slope
(4) Construction and Maintenance Performance Standards	Good Pond Shape
(5) Recommendations/Comments	Pond Okay

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

M. Connor

6/26/89
Date

POND INSPECTION REPORT

POND: Dryer

LOCATION: Wellington

ITEM	REMARKS
(1) Potential Safety Hazards	None
(2) Slope Stability	Pond - inner slope stable
(3) Erosion	Minor on Spillway end
(4) Construction and Maintenance Performance Standards	Pond - Have cut Grass - 70% Repair
(5) Recommendations/Comments	Dry

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[illegible signature]

6/28/89
Date

POND INSPECTION REPORT

POND: Hymer S.P.

LOCATION: Willingdon

ITEM	REMARKS
(1) Potential Safety Hazards	None
(2) Slope Stability	Stable * (see comment)
(3) Erosion	None
(4) Construction and Maintenance Performance Standards	* Pond is dry - however a .4 mile trench has been opened along the North side of the North dike - some action is indicated - to correct this problem.
(5) Recommendations/Comments	

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

John L. Loomis

6/28/1989

Date

POND INSPECTION REPORT

POND: Lower L Pond

LOCATION: Wilmington

ITEM	REMARKS
(1) Potential Safety Hazards	None
(2) Slope Stability	Stable
(3) Erosion	None
(4) Construction and Maintenance Performance Standards	Good
(5) Recommendations/Comments	No Problem pond is dry.

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

Julian L. Connor

6/28/1989
Date

POND INSPECTION REPORT

POND: Clearwater LOCATION: Willington

ITEM	REMARKS
(1) Potential Safety Hazards	None
(2) Slope Stability	Stable
(3) Erosion	None
(4) Construction and Maintenance Performance Standards	Good
(5) Recommendations/Comments	Pond dry —

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.

[illegible signature]

6/28/989
Date

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

DISSOLVED METALS

Client: EARTHCO
Project: Wellington Loadout Site
Matrix: Water

Date Reported: 04/06/98
Lab ID: 0398W01230-46

Parameter	Known Analysis Percent Recovery	Spike Analysis Percent Recovery	Duplicate Percent %RPD	Blank Recovery
Boron	94%	110%	0%	ND
Iron	101%	110%	-3%	ND
Lead	102%	96%	0%	ND
Manganese	99%	109%	-18%	ND
Selenium	100%	96%	0%	ND

Comments: Quality control run concurrently with the above sample lab numbers.

Reviewed By_____

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

TOTAL METALS

Client: EARTHCO
Project: Wellington Loadout Site
Matrix: Water

Date Reported: 04/06/98
Lab ID: 0398W01230-46

Parameter	Known Analysis Percent Recovery	Spike Analysis Percent Recovery	Duplicate Percent %RPD	Blank Recovery
Boron	92%	98%	-5%	ND
Iron	100%	96%	0%	ND
Manganese	100%	99%	0%	ND
Selenium	110%	107%	0%	ND

Comments: Quality control run concurrently with the above sample lab numbers.

Reviewed By_____

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

QUALITY ASSURANCE/QUALITY CONTROL
TOTAL PETROLEUM HYDROCARBONS

Client:	Earthco	Date Reported:	03/18/98
Project:	Wellington Loadout Site	Date Sampled:	03/12/98
Matrix:	Water	Date Received:	03/17/98
Condition:	Intact/Cool	Date Extracted:	03/17/98
		Date Analyzed:	03/18/98

Method Blank Analysis

Lab ID	Result	Units	Detection Limit
Method Blank	ND	mg/L	1.0

Spike Analysis

Lab ID	Found Conc. mg/L	Sample Conc. mg/L	Spike Amount mg/L	Percent Recovery	Acceptance Limits
MB	42.8	ND	52.6	81%	70-130%

Known Analysis

Lab ID	Found Conc. mg/L	Known Conc. mg/L	Percent Recovery	Acceptance Limits
QC	32.0	25.6	125%	70-130%

References:

Method : Oil And Grease, Total Recoverable, USEPA Chemical Analysis of Water and Waste, 1978.

Method : Separatory Funnel Liquid - Liquid Extraction, USEPA SW-846, Test Methods for Evaluating Solid Waste, Sept. 1986.

Analyst: _____ Reviewed: _____

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Trace Metals / Known Analysis / Spike Analysis / Blank Analysis
DISSOLVED METALS

Client: NEICO
Project: Groundwater
Laboratory ID: 0397W01941-1947
Sample Matrix: Water
Condition: Cool / Intact

Date Reported: 09/30/97
Date Sampled: 09/03/97
Date Received: 09/08/97

Known Analysis

Parameter	Found Value (mg/L)	Known Value (mg/L)	Percent Recovery
Boron	10.5	10.0	105%
Iron	0.95	1.00	95%
Lead	0.041	0.040	103%
Manganese	1.01	1.00	101%
Selenium	0.010	0.010	100%

Tiffany - this is just lab QC/QA

Spike Analysis

Parameter	Spike Result (mg/L)	Unspiked Sample Result (mg/L)	Spike Amount (mg/L)	Percent Recovery
Boron	11.8	1.60	10.0	104%
Iron	0.99	<0.02	1.00	99%
Lead	0.031	<0.005	0.030	103%
Manganese	1.00	0.019	1.00	97%
Selenium	0.022	<0.005	0.025	88%

∴ no need to enter. Thanks NB.

Blank Analysis

Parameter	Found Value (mg/L)	Detection Limit (mg/L)
Boron	ND	0.05
Iron	ND	0.02
Lead	ND	0.005
Manganese	ND	0.005
Selenium	ND	0.005

Reference: E.P.A. 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
"Standard Methods For The Examination Of Water And Waste Water", 18th ed., 1992.

Comments: Quality control run concurrently with the above sample lab numbers.
ND = None Detected at stated detection level.

Reviewed By: JS

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Trace Metals / Known Analysis / Spike Analysis / Blank Analysis
TOTAL METALS

Client: NEICO
Project: Groundwater
Laboratory ID: 0397W01941-1947
Sample Matrix: Water
Condition: Cool / Intact

Date Reported: 09/30/97
Date Sampled: 09/03/97
Date Received: 09/08/97

Known Analysis

Parameter	Found Value (mg/L)	Known Value (mg/L)	Percent Recovery
Boron	0.98	1.00	98%
Iron	1.03	1.00	103%
Manganese	1.03	1.00	103%
Selenium	0.009	0.010	90%

Spike Analysis

Parameter	Spike Result (mg/L)	Unspiked Sample Result (mg/L)	Spike Amount (mg/L)	Percent Recovery
Boron	1.33	0.53	1.00	80%
Iron	1.01	0.10	1.00	91%
Manganese	0.91	0.01	1.00	90%
Selenium	0.024	<0.005	0.025	96%

Blank Analysis

Parameter	Found Value (mg/L)	Detection Limit (mg/L)
Boron	ND	0.05
Iron	ND	0.02
Manganese	ND	0.005
Selenium	ND	0.005

Reference: E.P.A. 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
"Standard Methods For The Examination Of Water And Waste Water", 18th ed., 1992.

Comments: Quality control run concurrently with the above sample lab numbers.
ND = None Detected at stated detection level.

Reviewed By: JG

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

QUALITY ASSURANCE/QUALITY CONTROL
TOTAL PETROLEUM HYDROCARBONS

Client:	**Neico**	Date Reported:	09/24/97
Project:	CVR	Date Sampled:	08/19/97
Matrix:	Water	Date Received:	08/26/97
Condition:	Intact/Cool	Date Extracted:	09/11/97
		Date Analyzed:	09/11/97

Method Blank Analysis

Lab ID	Result	Units	Detection Limit
Method Blank	ND	mg/L	0.5

Spike Analysis

Lab ID	Found Conc. mg/L	Sample Conc. mg/L	Spike Amount mg/L	Percent Recovery	Acceptance Limits
MB	4.1	ND	4.6	89%	70-130%

References:

Method 413.2: Oil And Grease, Total Recoverable, USEPA Chemical Analysis of Water and Waste, 1978.

Method 3510: Separatory Funnel Liquid - Liquid Extraction, USEPA SW-846, Test Methods for Evaluating Solid Waste, Sept. 1986.

Analyst: _____

Reviewed: _____

Inter-Mountain Laboratories, Inc.

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSES / PARAMETERS
EARTHCO	WELLINGTON LOADOUT SITE	

Sampler: (Signature) [signature]

Chain of Custody Tape No.

Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	TDS	METALS	OIL & GREASE		Remarks
SW-1	3/12/98	13:00		Surface water	3	✓	✓	✓		
SW-2	"	12:00		"	"	✓	✓	✓		Samples have not
SW-2A	"	11:40		"	"	✓	✓	✓		been field filtered
SW-4	"	12:43		"	"	✓	✓	✓		
										cool-on ice, intact, UPS-ground

CR

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	3/12/98	4:30			
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by laboratory: (Signature)	Date	Time
			Chris Raynes	3-17-98	1135

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51915

Inter- Mountain Laboratories, Inc.

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSES / PARAMETERS
EARTHCO	Wellington Landfill Site	

Sampler: (Signature) [signature]

Chain of Custody Tape No.

Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	Total	Metals			Remarks
GW-1	3/12/98	11:25		Groundwater	2	✓	✓			Samples have not been field filtered
GW-2	"	12:20		"	"	✓	✓			
GW-3	"	12:30		"	"	✓	✓			
GW-4	"	12:15		"	"	✓	✓			
GW-6	"	12:00		"	"	✓	✓			
GW-7	"	10:45		"	"	✓	✓			
GW-8	"	10:10		"	"	✓	✓			
GW-9	"	9:45		"	"	✓	✓			
GW-9S	"	10:23		"	"	✓	✓			
GW-10	"	10:33		"	"	✓	✓			
GW-12	"	10:55		"	"	✓	✓			
GW-13	"	9:40		"	"	✓	✓			cool-on ice, intact UPS-ground
GW-14	"	11:05		"	"	✓	✓			

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	3/12/98	4:30			
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by laboratory: (Signature)	Date	Time
			Chris Raynes	3-12-98	1135

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51914

Inter- Mountain Laboratories, Inc.

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSES / PARAMETERS
EARTHCO - NEICO	CUR Property	
Sampler: (Signature)	Chain of Custody Tape No.	

Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	Raw	Metals			Remarks
GW-1	12/2/97	9:04		Groundwater	2	✓	✓			Please send more HNO3 for preservative
GW-2		9:24								
GW-3		9:37								
GW-4		9:42								
GW-6		9:59								
GW-7		11:25								
GW-8		10:54								
GW-9		11:02								
GW-9B		11:09								
GW-10		11:14								
GW-12		11:29								
GW-14	✓	11:34		✓	✓	✓	✓			

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	12/2/97	4:30			
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by laboratory: (Signature)	Date	Time

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01-50108

Inter-Mountain Laboratories, Inc.

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location
Earthco - NEICO	CUR Property

Sampler: (Signature)

Chain of Custody Tape No.

ANALYSES / PARAMETERS

Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	Raw	Water	Oil/Grease		Remarks
SW-1	12/2/97	10:27		Surface Water	3	✓	✓	✓		
SW-2	↓	9:39		↓	↓	↓	↓	↓		
SW-2A	↓	9:49		↓	↓	↓	↓	↓		New Point
SW-4	↓	8:40		↓	↓	↓	↓	↓		
										Send Water HCL for preservative

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	12/2/97	4:30			
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by laboratory: (Signature)	Date	Time

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01-50107

Inter- Mountain Laboratories, Inc.

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSES / PARAMETERS
EARTHCO / NEICO	CVR Property Carbon County UTAH	
Sampler: (Signature)	Chain of Custody Tape No.	

Sample No. Identification	Date	Time	Lab Number	Matrix	No. of Containers	Oil/Grease				Remarks
SW-1	12/18/97	11:20		Surface Water	1	✓				Re Sample
										cool + intact

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	12/18/97	4:30	Chris Rayner	12-22-97	1100
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by laboratory: (Signature)	Date	Time

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01- 50592

Inter- Mountain Laboratories, Inc.

CHAIN OF CUSTODY RECORD

Client/Project Name: Earthco - NEICO

Project Location: CUR Property

Sampler: (Signature)

Chain of Custody Tape No.

ANALYSES / PARAMETERS

Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	Raw	Water	Oil/Grease		Remarks
SW-1	12/2/97	10:27		Surface Water	3	✓	✓	✓		
SW-2		9:39								
SW-2A		9:49								New Point
SW-4		8:40								
										Send Name
										HCL for
										preservative
										cool + intact

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	12/2/97	4:30	Chris Raynes	12-5-97	1120
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by laboratory: (Signature)	Date	Time

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01-50107

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

QUALITY ASSURANCE/QUALITY CONTROL
TOTAL PETROLEUM HYDROCARBONS

Client:	Earthco	Date Reported:	12/30/97
Project:	CVR Property	Date Sampled:	12/18/97
Matrix:	Water	Date Received:	12/22/97
Condition:	Intact/Cool	Date Extracted:	12/30/97
		Date Analyzed:	12/30/97

Method Blank Analysis

Lab ID	Result	Units	Detection Limit
Method Blank	ND	mg/L	1.0

Spike Analysis

Lab ID	Found Conc. mg/L	Sample Conc. mg/L	Spike Amount mg/L	Percent Recoven	Acceptance Limits
MB	110	ND	100	110%	70-130%

Known Analysis

Lab ID	Found Conc. mg/L	Known Conc. mg/L	Percent Recoven	Acceptance Limits
QC	25.6	28.6	89%	70-130%

References:

Method : Oil And Grease, Total Recoverable, USEPA Chemical Analysis of Water and Waste, 1978.

Method : Separatory Funnel Liquid - Liquid Extraction, USEPA SW-846, Test Methods for Evaluating Solid Waste, Sept. 1986.

Analyst: _____ Reviewed: _____

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

QUALITY ASSURANCE/QUALITY CONTROL
TOTAL PETROLEUM HYDROCARBONS

Client:	**Earthco-Neico**	Date Reported:	12/16/97
Project:	CVR Property	Date Sampled:	12/02/97
Matrix:	Water	Date Received:	12/05/97
Condition:	Intact/Cool	Date Extracted:	12/15/97
		Date Analyzed:	12/15/97

Method Blank Analysis

Lab ID	Result	Units	Detection Limit
Method Blank	ND	mg/L	1.0

Spike Analysis

Lab ID	Found Conc mg/L	Sample Conc mg/L	Spike Amount mg/L	Percent Recoven	Acceptance Limits
MB	32.5	ND	25.6	127%	70-130%

Known Analysis

Lab ID	Found Conc mg/L	Known Conc mg/L	Percent Recoven	Acceptance Limits
QC	34.2	30.5	112%	70-130%

References:

Method : Oil And Grease, Total Recoverable, USEPA Chemical Analysis of Water and Waste, 1978.
Method : Separatory Funnel Liquid - Liquid Extraction, USEPA SW-846, Test Methods for Evaluating Solid Waste, Sept. 1986.

Analyst: _____ Reviewed: _____

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

DISSOLVED METALS

Client: Neico
Project: Groundwater
Matrix: Water

Date Reported: 1/3/98
Lab ID: 0397W02843-58

Parameter	Known Analysis Percent Recovery	Spike Analysis Percent Recovery	Duplicate Percent %RPD	Blank Recovery
Boron	97%	93%	1%	**ND**
Iron	95%	87%	0%	**ND**
Lead	98%	78%	0%	**ND**
Manganese	97%	86%	1%	**ND**
Selenium	100%	104%	0%	**ND**

Comments: Quality control run concurrently with the above sample lab numbers.

Reviewed By

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

TOTAL METALS

Client: NEICO
Project: Groundwater
Matrix: Water

Date Reported: 1/3/98
Lab ID: 0397W02843-58

Parameter	Known Analysis Percent Recovery	Spike Analysis Percent Recovery	Duplicate Percent %RPD	Blank Recovery
Boron	97%	89%	-3%	ND
Iron	95%	93%	0%	ND
Manganese	94%	90%	0%	ND
Selenium	100%	100%	0%	ND

Comments: Quality control run concurrently with the above sample lab numbers.

Reviewed By _____

run shaded areas only

TABLE 7.24-5
SURFACE WATER QUALITY PARAMETER LIST

PARAMETERS	BASELINE	OPERATIONAL*
FIELD PARAMETERS		
Flow or Water Level (gpm)		
Specific Conductivity (umhos/cm)		
Temperature (°C)		
pH		
Dissolved Oxygen (ppm)		
LABORATORY PARAMETERS		
Ammonia (NH_3)		
Alkalinity (Carbonate)		✓
Alkalinity (Bicarbonate)		✓
Alkalinity (Total)		✓
Aluminum Total		
Arsenic Total		
Boron Total		✓
Boron Dissolved		✓
Cadmium Total		
Calcium		✓
Chloride		✓
Copper Total		
Total Hardness		✓
Iron Dissolved		✓
Iron Total		✓
Lead Total		
Magnesium		✓
Manganese Dissolved		✓
Manganese Total		✓
Molybdenum Total		
Nitrate		
Nitrite		
Oil & Grease		✓
Phosphate (Ortho)		
Potassium		✓
Selenium Total		✓
Selenium Dissolved		✓
Sodium		✓
Sulfate		✓
Zinc Total		
pH		✓
Specific Conductance		✓
Total Dissolved Solids (TDS)		✓
Total Settleable Solids		✓
Total Suspended Solids		✓
Cation/Anion Balance		✓

* OPERATIONAL AND POSTMINING

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Trace Metals / Known Analysis / Spike Analysis / Blank Analysis
TOTAL METALS

Client: NEICO
Project: Surface Water
Laboratory ID: 0397W00862-0864
Sample Matrix: Water
Condition: Cool / Intact

Date Reported: 06/23/97
Date Sampled: 05/14/97
Date Received: 05/19/97

Known Analysis

Parameter	Found Value (mg/L)	Known Value (mg/L)	Percent Recovery
Boron	1.04	1.00	104%
Iron	1.01	1.00	101%
Manganese	1.01	1.00	101%
Selenium	0.011	0.010	110%

Spike Analysis

Parameter	Spike Result (mg/L)	Unspiked Sample Result (mg/L)	Spike Amount (mg/L)	Percent Recovery
Boron	1.60	0.07	1.00	98%
Iron	0.96	<0.02	1.00	96%
Manganese	1.010	0.081	1.000	94%
Selenium	0.024	<0.005	0.025	88%

Blank Analysis

Parameter	Found Value (mg/L)	Detection Limit (mg/L)
Boron	ND	0.10
Iron	ND	0.02
Manganese	ND	0.005
Selenium	ND	0.005

Reference: E.P.A. 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
"Standard Methods For The Examination Of Water And Waste Water", 18th ed., 1992.

Comments: Quality control run concurrently with the above sample lab numbers.
ND = None Detected at stated detection level.

Reviewed By: DB

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Trace Metals / Known Analysis / Spike Analysis / Blank Analysis
DISSOLVED METALS

Client: NEICO
Project: Surface Water
Laboratory ID: 0397W00862-0864
Sample Matrix: Water
Condition: Cool / Intact

Date Reported: 06/23/97
Date Sampled: 05/14/97
Date Received: 05/19/97

Known Analysis

Parameter	Found Value (mg/L)	Known Value (mg/L)	Percent Recovery
Boron	1.03	1.00	103%
Iron	1.00	1.00	100%
Manganese	1.04	1.00	104%
Selenium	0.011	0.010	110%

Spike Analysis

Parameter	Spike Result (mg/L)	Unspiked Sample Result (mg/L)	Spike Amount (mg/L)	Percent Recovery
Boron	1.06	0.09	1.00	98%
Iron	1.37	0.47	1.00	95%
Manganese	0.985	0.015	1.00	97%
Selenium	0.025	<0.005	0.025	96%

Blank Analysis

Parameter	Found Value (mg/L)	Detection Limit (mg/L)
Boron	ND	0.10
Iron	ND	0.02
Manganese	ND	0.005
Selenium	ND	0.005

Reference: E.P.A. 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
"Standard Methods For The Examination Of Water And Waste Water", 18th ed., 1992.

Comments: Quality control run concurrently with the above sample lab numbers.
ND = None Detected at stated detection level.

Reviewed By: SB

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Trace Metals / Known Analysis / Spike Analysis / Blank Analysis
TOTAL METALS

Client: NEICO
Project: Groundwater
Laboratory ID: 0397W00865-0876
Sample Matrix: Water
Condition: Cool / Intact

Date Reported: 06/23/97
Date Sampled: 05/14/97
Date Received: 05/19/97

Known Analysis

Parameter	Found Value (mg/L)	Known Value (mg/L)	Percent Recovery
Boron	1.07	1.00	107%
Iron	0.99	1.00	99%
Manganese	0.97	1.00	97%
Selenium	0.011	0.010	110%

Spike Analysis

Parameter	Spike Result (mg/L)	Unspiked Sample Result (mg/L)	Spike Amount (mg/L)	Percent Recovery
Boron	1.51	0.96	0.50	110%
Iron	0.97	0.48	0.50	98%
Manganese	0.86	0.38	0.50	96%
Selenium	0.022	<0.005	0.025	88%

Blank Analysis

Parameter	Found Value (mg/L)	Detection Limit (mg/L)
Boron	ND	0.10
Iron	ND	0.02
Manganese	ND	0.005
Selenium	ND	0.005

Reference: E.P.A. 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
"Standard Methods For The Examination Of Water And Waste Water", 18th ed., 1992.

Comments: Quality control run concurrently with the above sample lab numbers.
ND = None Detected at stated detection level.

Reviewed By: DB

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Trace Metals / Known Analysis / Spike Analysis / Blank Analysis
DISSOLVED METALS

Client: NEICO
Project: Groundwater
Laboratory ID: 0397W00865-0876
Sample Matrix: Water
Condition: Cool / Intact

Date Reported: 06/23/97
Date Sampled: 05/14/97
Date Received: 05/19/97

Known Analysis

Parameter	Found Value (mg/L)	Known Value (mg/L)	Percent Recovery
Boron	0.99	1.00	99%
Iron	0.97	1.00	97%
Lead	0.042	0.040	104%
Manganese	1.01	1.00	101%
Selenium	0.011	0.010	110%

Spike Analysis

Parameter	Spike Result (mg/L)	Unspiked Sample Result (mg/L)	Spike Amount (mg/L)	Percent Recovery
Boron	1.06	0.09	1 00	98%
Iron	1.37	0.47	1.00	95%
Lead	0.016	0.005	0.010	107%
Manganese	0.99	0.015	1.000	97%
Selenium	0.024	<0 005	0.025	96%

Blank Analysis

Parameter	Found Value (mg/L)	Detection Limit (mg/L)
Boron	ND	0.10
Iron	ND	0.02
Lead	ND	0.005
Manganese	ND	0.005
Selenium	ND	0.005

Reference: E.P.A. 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983
"Standard Methods For The Examination Of Water And Waste Water", 18th ed., 1992.

Comments: Quality control run concurrently with the above sample lab numbers.
ND = None Detected at stated detection level.

Reviewed By: JB

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

TOTAL OIL AND GREASE
Quality Assurance/Quality Control

Client:	**Neico**	Date Reported:	05/27/97
Project:	CVR Plant	Date Sampled:	05/14/97
Matrix:	Surface Water	Date Received:	05/19/97
Condition:	Intact/Cool	Date Extracted:	05/21/97
		Date Analyzed:	05/22/97

Method Blank Analysis

Lab ID	Result	Units	Detection Limit
Method Blank	ND	mg/L	1.0

Spike Analysis

Lab ID	Found Conc. mg/L	Sample Conc. mg/L	Spike Amount mg/L	Percent Recovery	Acceptance Limits
MB	46.7	ND	52.5	89%	70-130%

Known Analysis

Lab ID	Found Conc. mg/L	Known Conc. mg/L	Percent Recovery	Acceptance Limits
QC	23.8	25.2	94%	70-130%

References:

Method 413.2: Oil And Grease, Total Recoverable, USEPA Chemical Analysis of Water and Waste, 1978.

Method 3510: Separatory Funnel Liquid - Liquid Extraction, USEPA SW-846, Test Methods for Evaluating Solid Waste, Sept. 1986.

Analyst: _____

Reviewed: 813

Inter-Mountain Laboratories, Inc.

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location
EARTHCO	Wellington (CVR Plant)

Sampler: (Signature)	Chain of Custody Tape No.
Mike Hubbard	

ANALYSES / PARAMETERS

Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	Raw	Metals			Remarks
GW-1	3-24-97	11:20		Ground Water	2	✓	✓			These samples have
GW-2	"	12:00			"					not been field
GW-3	"	11:50			"					filtered.
GW-4	"	12:45			"					
GW-5R	"	10:50			"					
GW-6	"	12:50			"					
GW-7	"	10:40			"					
GW-8	"	9:50			"					
GW-9	"	10:05			"					
GW-9B	"	10:15			"					
GW-10	"	10:25			"					
GW-11	"	11:00			"					
										cool + intact

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Mike Hubbard	3-24-97	3:00	Chris Rogers	3-27-97	1105
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by laboratory: (Signature)	Date	Time

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46338

Inter-Mountain Laboratories, Inc.

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location
EARTHCO	Wellington (CVR Plant)

Sampler: (Signature)	Chain of Custody Tape No.
Mike Hubbard	

ANALYSES / PARAMETERS

Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	Raw	Metals	Oil & Grease		Remarks
SW-1	3-24-97	1:15		Surface Water	3	✓	✓	✓		
SW-2	3-24-97	1:00			"	✓	✓	✓		
SW-4	3-24-97	11:30			"	✓	✓	✓		
										Cool + intact

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Mike Hubbard	3-24-95	3:00	Chris Raymer	3-25-97	1105
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by laboratory: (Signature)	Date	Time

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46339

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CHAIN OF CUSTODY RECORD

FILE COPY

Client/Project Name	Project Location	ANALYSES / PARAMETERS
General Coal CO	Castle Valley Resources (CVR)	
Sampler: (Signature) Todd Wietz	Chain of Custody Tape No.	

Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	Raw	Metals	Oil & Grease		Remarks
GW-1	4/13/94	11:30am	WD 260	Ground Water	2	1	1			See enclosed
GW-2	"	11:50am	261	" "	2	1	1			parameter lists
GW-4	"	12:15am	262	" "	2	1	1			for ground
GW-6	"	12:30am	263	" "	2	1	1			and surface
GW-7	"	10:35am	264	" "	2	1	1			water
GW-8	"	9:40am	265	" "	2	1	1			
GW-9	"	10:00am	266	" "	2	1	1			
GW-10	"	10:15am	267 ~~270~~	" "	2	1	1			
GW-11	"	10:20am	268	" "	2	1	1			
GW-12	"	10:45am	269	" "	2	1	1			
GW-14	"	10:50am	270	" "	2	1	1			
GW-9B	"	10:05am	271	" "	2	1	1			
SW-1	"	1:00pm	272	Surface Water	3	1	1	1		
SW-2	"	12:35am	273	Surface Water	3	1	1	1		

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Todd Wietz	4/13/94	4:30	[illegible]	4/18	1130
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by laboratory: (Signature)	Date	Time

Inter-Mountain Laboratories, Inc.

16528

Avenue ming 82801	☐ 1714 Phillips Circle Gillette, Wyoming 82716	☑ 2506 West Main Street Farmington, NM 87401	☐ 1160 Research Dr. Bozeman, Montana 59715	☐ 11183 SH 30 College Station, TX 77845	☐ 3304 Longmire Drive College Station, TX 77845

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Trace Metals / Known Analysis / Spike Analysis / Blank Analysis
TOTAL METALS

Client:	EARTHCO		
Project:	Wellington (CVR Plant)	Date Reported:	04/11/97
Laboratory ID:	0397W00441-0452	Date Sampled:	03/24/97
Sample Matrix:	Water	Date Received:	03/27/97
Condition:	Cool / Intact		

Known Analysis

Parameter	Found Value (mg/L)	Known Value (mg/L)	Percent Recovery
Boron	1.01	1.00	101%
Iron	0.98	1.00	98%
Manganese	1.02	1.00	102%
Selenium	0.009	0.010	90%

Spike Analysis

Parameter	Spike Result (mg/L)	Unspiked Sample Result (mg/L)	Spike Amount (mg/L)	Percent Recovery
Boron	2.47	0.63	2.00	95%
Iron	2.41	0.75	2.00	87%
Manganese	2.09	0.34	2.00	89%
Selenium	0.022	<0.005	0.025	88%

Blank Analysis

Parameter	Found Value (mg/L)	Detection Limit (mg/L)
Boron	ND	0.10
Iron	ND	0.02
Manganese	ND	0.005
Selenium	ND	0.005

Reference: E.P.A. 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
"Standard Methods For The Examination Of Water And Waste Water", 18th ed., 1992.

Comments: Quality control run concurrently with the above sample lab numbers.
ND = None Detected at stated detection level.

Reviewed By SB

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Trace Metals / Known Analysis / Spike Analysis / Blank Analysis
DISSOLVED METALS

Client:	**EARTHCO**		
Project:	Wellington (CVR Plant)	Date Reported:	04/11/97
Laboratory ID:	0397W00441-0452	Date Sampled:	03/24/97
Sample Matrix:	Water	Date Received:	03/27/97
Condition:	Cool / Intact		

Known Analysis

Parameter	Found Value (mg/L)	Known Value (mg/L)	Percent Recovery
Boron	1.01	1.00	101%
Iron	0.99	1.00	99%
Lead	0.038	0.040	95%
Manganese	1.02	1.00	102%
Selenium	0.010	0.010	100%

Spike Analysis

Parameter	Spike Result (mg/L)	Unspiked Sample Result (mg/L)	Spike Amount (mg/L)	Percent Recovery
Boron	1.49	0.65	1.00	90%
Iron	1.74	0.97	1.00	86%
Lead	0.020	<0.005	0.020	100%
Manganese	2.04	1.31	1.00	86%
Selenium	0.024	<0.005	0.025	96%

Blank Analysis

Parameter	Found Value (mg/L)	Detection Limit (mg/L)
Boron	ND	0.10
Iron	ND	0.02
Lead	ND	0.005
Manganese	ND	0.005
Selenium	ND	0.005

Reference: E.P.A. 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
"Standard Methods For The Examination Of Water And Waste Water", 18th ed., 1992.

Comments: Quality control run concurrently with the above sample lab numbers.
ND = None Detected at stated detection level.

Reviewed By: JB

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Trace Metals / Known Analysis / Spike Analysis / Blank Analysis
TOTAL METALS

Client:	EARTHCO		
Project:	Wellington (CVR Plant)	Date Reported:	04/11/97
Laboratory ID:	0397W00453-0455	Date Sampled:	03/24/97
Sample Matrix:	Water	Date Received:	03/27/97
Condition:	Cool / Intact		

Known Analysis

Parameter	Found Value (mg/L)	Known Value (mg/L)	Percent Recovery
Boron	1.02	1.00	102%
Iron	0.95	1.00	95%
Manganese	1.03	1.00	103%
Selenium	0.010	0.010	100%

Spike Analysis

Parameter	Spike Result (mg/L)	Unspiked Sample Result (mg/L)	Spike Amount (mg/L)	Percent Recovery
Boron	3.18	1.40	2.00	96%
Iron	3.96	2.50	2.00	86%
Manganese	5.72	4.32	2.00	92%
Selenium	0.027	<0.005	0.025	96%

Blank Analysis

Parameter	Found Value (mg/L)	Detection Limit (mg/L)
Boron	ND	0.10
Iron	ND	0.02
Manganese	ND	0.005
Selenium	ND	0.005

Reference: E.P.A. 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983
"Standard Methods For The Examination Of Water And Waste Water", 18th ed., 1992.

Comments: Quality control run concurrently with the above sample lab numbers.
ND = None Detected at stated detection level.

Reviewed By JB

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Trace Metals / Known Analysis / Spike Analysis / Blank Analysis
DISSOLVED METALS

Client:	EARTHCO		
Project:	Wellington (CVR Plant)	Date Reported:	04/11/97
Laboratory ID:	0397W00453-0455	Date Sampled:	03/24/97
Sample Matrix:	Water	Date Received:	03/27/97
Condition:	Cool / Intact		

Known Analysis

Parameter	Found Value (mg/L)	Known Value (mg/L)	Percent Recovery
Boron	1.01	1.00	101%
Iron	1.02	1.00	102%
Manganese	1.04	1.00	104%
Selenium	0.010	0.010	100%

Spike Analysis

Parameter	Spike Result (mg/L)	Unspiked Sample Result (mg/L)	Spike Amount (mg/L)	Percent Recovery
Boron	1.39	0.51	1.00	93%
Iron	0.88	<0.025	1.00	88%
Manganese	1.01	0.139	1.00	88%
Selenium	0.022	<0.005	0.025	88%

Blank Analysis

Parameter	Found Value (mg/L)	Detection Limit (mg/L)
Boron	ND	0.10
Iron	ND	0.02
Manganese	ND	0.005
Selenium	ND	0.005

Reference: E.P.A. 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983
"Standard Methods For The Examination Of Water And Waste Water", 18th ed. 1992

Comments: Quality control run concurrently with the above sample lab numbers.
ND = None Detected at stated detection level.

Reviewed By: _____

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Trace Metals / Known Analysis / Spike Analysis / Method Blank Analysis
Dissolved Trace Metals

Client: GENWAL COAL CO.
Project: Castle Valley Resources (CVR)
Laboratory ID: W00260-W00271
Sample Matrix: Water
Condition: Cool / Intact

Date Reported: 05/13/94
Date Sampled: 04/13/94
Date Received: 04/18/94

Known Analysis

Parameter	Found Concentration	Known Concentration	Percent Recovery	Units
Iron	0.95	1.00	**95%**	mg/L
Manganese	1.08	1.00	**108%**	mg/L

Spike Analysis

Parameter	Spike Result (mg/L)	Unspiked Result (mg/L)	Spike Amount (mg/L)	Percent Recovery
Iron	1.90	1.81	2.00	**100%**
Manganese	1.34	0.66	2.00	**104%**

Reference: U.S.E.P.A. 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
"Standard Methods For The Examination Of Water And Waste Water", 17th ed., 1989.

Comments: Quality control run concurrently with the above sample lab numbers.

Reported By:

Reviewed By:

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Trace Metals / Known Analysis / Spike Analysis
Dissolved Trace Metals

Client: GENWAL COAL CO.
Laboratory ID: W00272-W00273
Sample Matrix: Water
Condition: Cool / Intact

Date Reported: 05/13/94
Date Sampled: 04/13/94
Date Received: 04/18/94

Known Analysis

Parameter	Found Concentration	Known Concentration	Percent Recovery	Units
Iron	0.95	1.00	**95%**	mg/L
Manganese	1.08	1.00	**108%**	mg/L

Spike Analysis

Parameter	Spike Result (mg/L)	Unspiked Result (mg/L)	Spike Amount (mg/L)	Percent Recovery
Iron	1.90	1.81	2.00	**100%**
Manganese	1.07	0.02	2.00	**106%**

Reference: U.S.E.P.A. 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
"Standard Methods For The Examination Of Water And Waste Water", 17th ed., 1989.

Comments: Quality control run concurrently with the above sample lab numbers.

Reported By:

Reviewed By:

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Trace Metals / Known Analysis / Spike Analysis
Total Trace Metals

Client: GENWAL COAL CO.
Laboratory ID: W00272-W00273
Sample Matrix: Water
Condition: Cool / Intact

Date Reported: 05/13/94
Date Sampled: 04/13/94
Date Received: 04/18/94

Known Analysis

Parameter	Found Concentration	Known Concentration	Percent Recovery	Units
Iron	1.00	1.00	**100%**	mg/L
Manganese	1.07	1.00	**107%**	mg/L
Calcium	9.41	9.99	**94%**	meq/L
Potassium	1.02	1.02	**100%**	meq/L
Magnesium	3.29	3.29	**100%**	meq/L
Sodium	8.74	8.70	**100%**	meq/L

Spike Analysis

Parameter	Spike Result (mg/L)	Unspiked Result (mg/L)	Spike Amount (mg/L)	Percent Recovery
Iron	1.59	1.23	2.00	**100%**
Manganese	1.47	1.00	2.00	**97%**

Method Blank Analysis

Parameter	Found Concentration	Detection Level	Units
Iron	**ND**	0.05	mg/L
Manganese	**ND**	0.02	mg/L
Calcium	**1.4**	1.0	mg/L
Potassium	**1.2**	1.0	mg/L
Magnesium	**ND**	1.0	mg/L
Sodium	**ND**	1.0	mg/L

Reference: U.S.E.P.A. 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
"Standard Methods For The Examination Of Water And Waste Water", 17th ed., 1989.

Comments: Quality control run concurrently with the above sample lab numbers.

Reported By:

Gloria Bartlett
Reviewed By:

8

TABLE 7.24-5
SURFACE WATER QUALITY PARAMETER LIST

PARAMETERS	BASELINE	OPERATIONAL*
FIELD PARAMETERS		
Flow or Water Level (gpm)		
Specific Conductivity (umhos/cm)		
Temperature (°C)		
pH		
Dissolved Oxygen (ppm)		
LABORATORY PARAMETERS		
Ammonia (NH_3)		
Alkalinity (Carbonate)		
Alkalinity (Bicarbonate)		
Alkalinity (Total)		
Aluminum Total		
Arsenic Total		
Boron Total		
Boron Dissolved		
Cadmium Total		
Calcium		
Chloride		
Copper Total		
Total Hardness		
Iron Dissolved		
Iron Total		
Lead Total		
Magnesium		
Manganese Dissolved		
Manganese Total		
Molybdenum Total		
Nitrate		
Nitrite		
Oil & Grease		
Phosphate (Ortho)		
Potassium		
Selenium Total		
Selenium Dissolved		
Sodium		
Sulfate		
Zinc Total		
pH		
Specific Conductance		
Total Dissolved Solids (TDS)		
Total Settleable Solids		
Total Suspended Solids		
Cation/Anion Balance		

* OPERATIONAL AND POSTMINING

Rev. 3/82

Field No. 1A

TC | TM | Nut
PC | PM | BOD

Pest. | Rad. | Bact. | Spec.

Date Recd.: _____

Received By: _____

UTAH STATE DEPARTMENT OF HEALTH
ENVIRONMENTAL HEALTH
WATER ANALYSES

Sample No. 270 (701)

Storet No. (702)

Water Syst. No. (703) Source No. (704)

Date Collected (714): 830126 (yr. mo. dy.)

Time Collected (610): 1359 (24-hour clock)

Water Rights No. (707)

Exact Description of sampling Point (646):
DISCHARGE FROM MARSH AREA EAST OF SLURRY PIPELINE

Supply Owned by (710): US SPECL WELLINGTON

Sample Type

Sample Collected by (713): KEN WYATT

SEND REPORT TO: Phone 533 5771 (715)
DIV OIL GAS MINING (648)
4241 STATE OFFICE BG (717)
SALT LAKE UT 84105
zip code

Sample Source (719): 14
01 Spring, 02 Well, 03 Stream, 04 Lake, 06 Dist. syst., 07 Effluent, 08 Storm sewer, 14 Other, 15 Tunnel, 18 Artesian well, 19 Swimming pool

County (611): 04
01 Beaver, 02 Box Elder, 03 Cache, 04 Carbon, 05 Daggett, 06 Davis, 07 Duchesne, 08 Emery, 09 Garfield, 10 Grand, 11 Iron, 12 Juab, 13 Kane, 14 Millard, 15 Morgan, 16 Piute, 17 Rich, 18 Salt Lake, 19 San Juan, 20 Sanpete, 21 Sevier, 22 Summit, 23 Tooele, 24 Uintah, 25 Utah, 26 Wasatch, 27 Washington, 28 Wayne, 29 Weber

Current use (708): 4
Proposed use (709): 4
1. Culinary
2. Agriculture
3. Industrial
4. Other

Cost Code (770): 900 B

1 FIELD TESTS

Temperature (°C)	792	CO_2, mg/l	572
D.O., mg/l	793	Depth, m	609
Sp. Cond. µ mhos	653	Cl Resid., mg/l	753
pH	651	Flow, MGD	652
Sp. Gravity	608	Flow, GPM	604
Transparency, m	649	Flow, cfs	659

2 WASTEWATER ANALYSIS

Temperature (°C) 650 | pH 782 | BACT. LAB. No.

	mg/l		mg/l
B.O.D.$_5$	794	T.O.C.	671
Tot. Sus. Solids	210 787	C.O.D.	777
NO_2+NO_3,N	802	Cyanide	775
T.K.N.	778	Phenolics	783
Oil & Grease	780	Sulfide	672

M.P.N. Total Coliforms/100ml	658
M.P.N. Fecal Coliforms/100ml	657
Fecal Strep C/100ml.	656
M.F. Total Coliforms/100ml.	654
M.F. Fecal Coliforms/100ml.	655
Plate Count-Org./ml.	599

3 Filtered | Unfiltered

me/l	CATIONS	mg/l	ug/l (ppb)	
	Ammonia as N			722
	Arsenic			723
	Barium			724
	Boron			725
	Cadmium			727
	Calcium			728
	Chromium			729
	Chromium, Hex. as Cr			730
	Copper			732
	Iron, dissolved		60	733
	Lead			734
	Magnesium			737
	Manganese		20	738
	Nickel			740
	Potassium			742
	Selenium			743
	Silver			744
	Sodium			745
	Zinc			749
	TOTAL CATIONS			

Sp. Cond. µmhos/cm. 792
TDS @ 180°C 2538 786

4 CHEMICAL ANALYSIS

pH, units 8.1

me/l	ANIONS	mg/l	
	Bicarbonate		758
	Carbon Dioxide		759
	Carbonate		760
	Chloride		763
	CO_3 Solids		
	Fluoride		765
	Hydroxide		767
	Nitrate as N		605
	Nitrite as N		606
	Phosphorus, Ortho as P		607
	Silica, dissolved as SiO_2		750
	Sulfate		772
	TOTAL ANIONS		
	GRAND TOTAL		

Tot. Phosphorus		785
Total Alk. as $CaCO_3$		752
T. Hdns. as $CaCO_3$		754
Surfactant as MBAS		773
Turbidity, as NTU		757
Sp. Gravity		608

TOTAL METALS ANALYSIS

5 CATIONS	mg/l	ug/l (ppb)	
Aluminum			800
Arsenic			660
Barium			661
Beryllium			801
Cadmium			662
Chromium			663
Cobalt			804
Copper			664
Gold			700
Iron		170	755
Lead			665
Manganese		145	666
Mercury			739
Molybdenum			802
Nickel			667
Selenium			668
Silver			669
Uranium			601
Vanadium			803
Zinc			670

6 RADIOLOGICS

	pc/l-g		pc/l-g	
Alpha, gross		621	^{89}Sr	633
Beta, gross		623	^{131}I	635
Tritium, ^3H		625	^{134}Cs	637
^{226}Radium		627	^{137}Cs	639
^{228}Radium		629		
^{90}Sr		631		

Analyses Approved By: RED Date: 830210

INTERPRETATION OF ANALYSES:
Remarks:

Based on State Standards, this sample was:

	Satisfactory	Conditional	Unsatisfactory
B.O.D.$_5$			
Tot. Sus. Solids			
M.P.N. Total Coliform.			
M.P.N. Fecal Coliform.			

By _____
ENVIRONMENTAL HEALTH

Analytical Report

Mountain States Analytical
The Quality Solution

Cation Anion Balance 10-Apr-92

Cation Anion Balance Spreadsheet

Project: COASY
Sample #: 25444
Analyst: RA/GS
Date: 04/10/92

	Cations	mg/l	meq/l
1	Calcium	206.00	10.27940
2	Magnesium	142.00	11.68092
3	Iron	0.66	0.03546
4	Sodium	328.00	14.26800
5	Potassium	8.97	0.22936
	Cation Total =		36.493138

	Anions	mg/l	meq/l
1	Chloride	68.00	1.91828
2	Bicarbonate	324.00	5.31036
3	Sulfate	1020.00	21.23640
4	Fluoride	0.00	0.00000
5	Nitrate	0.00	0.00000
	Anion Total =		28.46504

Percentage Error = 24.72%

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050 FAX (801) 972-6278

Member: American Council of Independent Laboratories, Inc.

Analytical Report

Mountain States Analytical
The Quality Solution

Cation Anion Balance 10-Apr-92

Cation Anion Balance Spreadsheet

Project: COASY
Sample #: 25445
Analyst: RA/GS
Date: 04/10/92

	Cations	mg/l	meq/l
1	Calcium	202.00	10.07980
2	Magnesium	142.00	11.68092
3	Iron	0.58	0.03116
4	Sodium	282.00	12.26700
5	Potassium	8.80	0.22502
	Cation Total =		34.283893

	Anions	mg/l	meq/l
1	Chloride	65.40	1.84493
2	Bicarbonate	325.00	5.32675
3	Sulfate	1290.00	26.85780
4	Fluoride	0.00	0.00000
5	Nitrate	0.00	0.00000
	Anion Total =		34.029484

Percentage Error = 0.74%

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Mountain States Analytical

The Quality Solution

Cation Anion Balance 07-Jan-92

Cation Anion Balance Spreadsheet

Project: COASY
Sample #: 23223
Analyst: RA/GS
Date: 01/07/92

	Cations	mg/l	meq/l
1	Calcium	173.00	8.63270
2	Magnesium	98.70	8.11906
3	Iron	0.75	0.04029
4	Sodium	215.00	9.35250
5	Potassium	7.22	0.18462
	Cation Total =		26.329167

	Anions	mg/l	meq/l
1	Chloride	67.00	1.89007
2	Bicarbonate	358.00	5.86762
3	Sulfate	1120.00	23.31840
4	Fluoride	0.00	0.00000
5	Nitrate	0.00	0.00000
	Anion Total =		31.07609

Percentage Error = 16.54%

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Mountain States Analytical

The Quality Solution

Cation Anion Balance 07-Jan-92

Cation Anion Balance Spreadsheet

Project: COASY
Sample #: 23224
Analyst: RA/GS
Date: 01/07/92

	Cations	mg/l	meq/l
1	Calcium	182.00	9.08180
2	Magnesium	97.30	8.00390
3	Iron	0.73	0.03922
4	Sodium	282.00	12.26700
5	Potassium	7.52	0.19229
	Cation Total =		29.5842

	Anions	mg/l	meq/l
1	Chloride	58.30	1.64464
2	Bicarbonate	363.00	5.94957
3	Sulfate	1180.00	24.56760
4	Fluoride	0.00	0.00000
5	Nitrate	0.00	0.00000
	Anion Total =		32.161813

Percentage Error = 8.35%

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MOUNTAIN STATES ANALYTICAL

ANALYTICAL REPORT

Cation Anion Balance 29-Apr-91

Cation Anion Balance Spreadsheet

Project: worksheet test
Sample #: 17700
Analyst: gas
Date: ********

	Cations	mg/l	meq/l
1	Calcium	190.00	9.48100
2	Magnesium	128.00	10.52928
3	Iron	1.15	0.06178
4	Sodium	384.00	16.70400
5	Potassium	6.45	0.16493
	Cation Total =		36.940984

	Anions	mg/l	meq/l
1	Chloride	91.90	2.59250
2	Bicarbonate	337.00	5.52343
3	Sulfate	1120.00	23.31840
4	Fluoride	0.00	0.00000
5	Nitrate	0.00	0.00000
	Anion Total =		31.434329

Percentage Error = 0.16

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MOUNTAIN STATES ANALYTICAL

ANALYTICAL REPORT

Cation Anion Balance 29-Apr-91

Cation Anion Balance Spreadsheet

Project: worksheet test
Sample #: 17699 SW #1
Analyst: gas
Date: ********

	Cations	mg/l	meq/l
1	Calcium	185.00	9.23150
2	Magnesium	120.00	9.87120
3	Iron	2.04	0.10959
4	Sodium	350.00	15.22500
5	Potassium	6.92	0.17694
	Cation Total =		34.614233

	Anions	mg/l	meq/l
1	Chloride	105.00 ✓	2.96205
2	Bicarbonate	336.00	5.50704
3	Sulfate	1530.00 ✓	31.85460
4	Fluoride	0.00	0.00000
5	Nitrate	0.00	0.00000
	Anion Total =		40.32369

Percentage Error = -0.15

1645 West 2200 South, Salt Lake City, Utah 84119 (801) 973-0050

SURFACE WATER QUALITY MONITORING

WELLINGTON COAL CLEANING PLANT

A

Sample Date:	11-14-83
Aluminum, Al mg/l	.074
Ammonia, NH3 mg/l	10.00
Arsenic, As mg/l	<.001
Barium, Ba mg/l	.062
Bicarbonate, HNO3 mg/l	385.52
Boron, B mg/l	.28
Cadmium, Cd mg/l	<.001
Calcium,Ca mg/l	184.00
Carbonate, CO3 mg/l	<.01
Chloride, Cl mg/l	46.00
Chromium, Cr mg/l	<.001
Conductivity, umhos/cm	2,780
Copper, Cu mg/l	.040
Flouride, F mg/l	.30
Iron, Fe (total) mg/l	.280
Lead, Pb mg/l	.070
Magnesium, Mg mg/l	120.00
Manganese, Mn mg/l	.250
Mercury, Hg mg/l	<.0002
Molybdenum, Mo mg/l	.025
Nickel, Ni mg/l	.02
Nitrate, NO3-N mg/l	1.17
Nitrite, NO2-N mg/l	<.01
Phosphate, PO4 mg/l	.70
Potassium, K mg/l	6.0
Selenium, Se mg/l	<.001
Sodium, Na mg/l	227.00
Sulfate, SO4 mg/l	1,020
Sulfide, S mg/l	1.40
Suspended Solids mg/l	30.0
Total Dissolved Solids mg/l	1,835
Zinc, Zn mg/l	.020
pH Units	8.00

SURFACE WATER QUALITY MONITORING

WELLINGTON COAL CLEANING PLANT

A

Sample Date:	1-14-83	4-25-83	8-17-83
Aluminum, Al mg/l	0.150	0.05	.190
Ammonia, NH3 mg/l	0.58	0.22	.35
Arsenic, As mg/l	<0.001	<0.001	<.001
Barium, Ba mg/l	0.053	0.240	.250
Bicarbonate, HNO3 mg/l	365.60	322.10	339.16
Boron, B mg/l	0.150	0.08	.090
Cadmium, Cd mg/l	<0.001	<0.001	<.001
Calcium,Ca mg/l	126.00	68.00	120.00
Carbonate, CO3 mg/l	<0.01	14.40	<.01
Chloride, Cl mg/l	25.20	19.70	24.0
Chromium, Cr mg/l	<0.001	<0.001	.042
Conductivity, umhos/cm SM 205	1,500	950	1,460
Copper, Cu mg/l	0.010	<0.01	<.001
Flouride, F mg/l	0.22	0.28	.22
Iron, Fe (total) mg/l	1.250	28.20	26.950
Lead, Pb mg/l	<0.001	<0.001	<.001
Magnesium, Mg mg/l	66.00	43.20	60.00
Manganese, Mn mg/l	0.070	0.960	.885
Mercury, Hg mg/l	<0.0002	<0.0002	<.0002
Molybdenum, Mo mg/l	<0.001	<0.01	.026
Nickel, Ni mg/l	<0.001	<0.01	.019
Nitrate, NO3-N mg/l	0.29	0.93	.85
Nitrite, NO2-N mg/l	0.03	0.05	<.02
Phosphate, PO4 mg/l	0.500	0.90	.65
Potassium, K mg/l	3.60	3.50	3.2
Selenium, Se mg/l	<0.001	0.002	<.001
Sodium, Na mg/l	106	83.0	110
Sulfate, SO4 mg/l	470	212	464
Sulfide, S mg/l	<0.01	<0.10	.65
Suspended Solids mg/l	74.0	3.076	2,195
Total Dissolved Solids mg/l	980	654	950
Zinc, Zn mg/l	0.007	0.002	.005
pH Units	7.90	8.00	8.05

SURFACE WATER QUALITY DATA

Wellington Coal Cleaning Plant

Sampling Date:	3-27-81	4-22-81	5-21-81	6-23-81	7-27-81	8-21-81
A Flow (gpm)	NA	NA	NA	NA	NA	NA
Acidity as $CaCO_3$ mg/l	14.0	2.50	< .01	< .01	< .01	6.30
Alkalinity as $CaCO_3$ mg/l	326.00	300.00	294.00	290.00	266.00	180.00
Dissolved Iron mg/l	.630	.050	.740	.680	.660	.710
Iron as Fe (Total) mg/l	.930	1.500	.880	.780	.820	.995
Manganese as Mn (Tot) mg/l	.170	.160	.120	.100	.110	.150
Suspended Solids mg/l	41.0	64.0	7.0	72.0	7.0	2,752
Total Dissolved Solids mg/l	1,850	1,950	100	2,100	2,050	800
pH Units	7.60	7.90	8.20	7.90	8.40	8.10

Sampling Date:	9-23-81	10-13-81	11-30-81	12-28-81	2-12-82	2-24-82
A Flow (gpm)	NA	NA	NA	NA	NA	NA
Acidity as $CaCO_3$ mg/l	<.01	4.00	4.00	< .01	18.00	22.00
Alkalinity as $CaCO_3$ mg/l	378.00	198.70	300.60	352.00	316.60	322.70
Dissolved Iron mg/l	.320	.095	.690	.135	.010	1.580
Iron as Fe (Total) mg/l	.840	.465	.810	.440	.690	2.430
Manganese as Mn (Tot) mg/l	.120	.034	.110	.110	.050	.170
Suspended Solids mg/l	84.0	11.2	39.0	61.0	10.5	43.0
Total Dissolved Solids mg/l	3,350	1,100	1,935	1,850	1,650	1,550
pH Units	8.20	6.80	7.80	8.10	7.20	7.40

Sampling Date:	3-29-82	4-22-82	5-18-82	6-9-82	8-23-82	9-23-82
A Flow (gpm)	NA	NA	NA	NA	NA	NA
Acidity as $CaCO_3$ mg/l	28.00	< .01	< .01	< .01	34.00	15.00
Alkalinity as $CaCO_3$ mg/l	310.50	304.50	236.70	227.80	262.10	297.80
Dissolved Iron mg/l	.020	6.870	6.800	3.000	.050	2.440
Iron as Fe (Total) mg/l	1.860	27.100	15.800	5.700	27.500	5.560
Manganese as Mn (Tot) mg/l	.070	.665	.475	.170	5.480	.159
Suspended Solids mg/l	92.0	1,088	332	399	39,720	50.0
Total Dissolved Solids mg/l	2,132	792	516	410	2,915	1,750
pH Units	7.60	8.00	8.00	8.00	7.50	7.80

NA Not Available

SURFACE WATER QUALITY MONITORING

WELLINGTON COAL CLEANING PLANT

B

Sample Date:	11-14-83
Aluminum, Al mg/l	.073
Ammonia, NH3 mg/l	1.10
Arsenic, As mg/l	<.001
Barium, Ba mg/l	.056
Bicarbonate, HNO3 mg/l	397.72
Boron, B mg/l	.31
Cadmium, Cd mg/l	<.001
Calcium,Ca mg/l	188.00
Carbonate, CO3 mg/l	<.01
Chloride, Cl mg/l	50.00
Chromium, Cr mg/l	<.001
Conductivity, umhos/cm	2,950
Copper, Cu mg/l	.040
Flouride, F mg/l	.30
Iron, Fe (total) mg/l	.280
Lead, Pb mg/l	.080
Magnesium, Mg mg/l	132.00
Manganese, Mn mg/l	.150
Mercury, Hg mg/l	<.0002
Molybdenum, Mo mg/l	.019
Nickel, Ni mg/l	.01
Nitrate, NO3-N mg/l	1.12
Nitrite, NO2-N mg/l	<.01
Phosphate, PO4 mg/l	1.66
Potassium, K mg/l	6.1
Selenium, Se mg/l	<.001
Sodium, Na mg/l	244.00
Sulfate, SO4 mg/l	1,100
Sulfide, S mg/l	1.30
Suspended Solids mg/l	17.0
Total Dissolved Solids mg/l	1,950
Zinc, Zn mg/l	.015
pH Units	8.10

SURFACE WATER QUALITY MONITORING

WELLINGTON COAL CLEANING PLANT

B

Sample Date:	1-14-83	4-25-83	8-17-83
Aluminum, Al mg/l	0.210	0.03	.210
Ammonia, NH3 mg/l	0.50	0.22	.35
Arsenic, As mg/l	<0.001	<0.001	<.001
Barium, Ba mg/l	0.055	0.135	.135
Bicarbonate, HNO3 mg/l	358.40	366.00	336.20
Boron, B mg/l	0.160	0.08	.070
Cadmium, Cd mg/l	<0.001	<0.001	<.001
Calcium,Ca mg/l	134.00	68.00	108.00
Carbonate, CO3 mg/l	<0.01	19.20	<.01
Chloride, Cl mg/l	29.00	23.70	40.0
Chromium, Cr mg/l	<0.001	<0.001	.027
Conductivity, umhos/cm SM 205	1,500	1,025	1,450
Copper, Cu mg/l	0.010	<0.01	<.001
Flouride, F mg/l	0.22	0.37	.21
Iron, Fe (total) mg/l	1.850	48.800	53.500
Lead, Pb mg/l	<0.001	<0.001	<.001
Magnesium, Mg mg/l	69.50	43.20	74.40
Manganese, Mn mg/l	0.094	0.003	.014
Mercury, Hg mg/l	<0.0002	<0.0002	<.0002
Molybdenum, Mo mg/l	<0.001	<0.01	.013
Nickel, Ni mg/l	<0.001	<0.01	<.010
Nitrate, NO3-N mg/l	0.33	0.86	.60
Nitrite, NO2-N mg/l	0.03	0.03	<.02
Phosphate, PO4 mg/l	0.770	1.96	1.50
Potassium, K mg/l	4.00	5.80	3.3
Selenium, Se mg/l	<0.001	0.002	<.001
Sodium, Na mg/l	120	103	95.0
Sulfate, SO4 mg/l	525	214	452
Sulfide, S mg/l	0.80	1.20	1.20
Suspended Solids mg/l	133	2,284	732
Total Dissolved Solids mg/l	1,060	670	938
Zinc, Zn mg/l	0.013	0.001	.010
pH Units	7.90	7.90	7.95

SURFACE WATER QUALITY DATA

Wellington Coal Cleaning Plant

Sampling Date:	3-27-81	4-22-81	5-21-81	6-23-81	7-27-81	8-21-81
B Flow (gpm)	NA	NA	NA	NA	NA	NA
Acidity as $CaCO_3$ mg/l	8.0	5.00	< .01	< .01	9.50	12.60
Alkalinity as $CaCO_3$ mg/l	320.00	312.00	286.00	292.00	248.00	298.00
Dissolved Iron mg/l	.020	.430	.380	.030	.035	.349
Iron as Fe (Total) mg/l	.500	.740	.850	.630	.650	1.110
Manganese as Mn (Tot) mg/l	.110	.160	.120	.040	.050	.132
Suspended Solids mg/l	31.0	48.0	5.0	38.0	81.0	3,588
Total Dissolved Solids mg/l	1,850	2,000	130	2,100	2,000	1,800
pH Units	7.60	8.00	8.10	8.20	7.90	7.70

Sampling Date:	9-23-81	10-13-81	11-30-81	12-28-81	2-12-82	2-24-82
B Flow (gpm)	NA	NA	NA	NA	NA	NA
Acidity as $CaCO_3$ mg/l	12.00	6.00	6.00	< .01	20.00	12.00
Alkalinity as $CaCO_3$ mg/l	332.00	197.30	298.30	309.00	309.40	318.20
Dissolved Iron mg/l	.310	.080	.035	.200	.020	1.530
Iron as Fe (Total) mg/l	.920	.520	.520	.510	.900	2.480
Manganese as Mn (Tot) mg/l	.125	.045	.032	.080	.060	.200
Suspended Solids mg/l	25.0	9.5	32.0	64.0	12.3	154
Total Dissolved Solids mg/l	2,600	1,150	1,925	1,900	1,725	1,550
pH Units	7.90	7.10	7.80	8.10	7.20	7.80

Sampling Date:	3-29-82	4-22-82	5-18-82	6-9-82	8-23-82	9-23-82
B Flow (gpm)	NA	NA	NA	NA	NA	NA
Acidity as $CaCO_3$ mg/l	28.00	6.00	< .01	< .01	26.00	13.00
Alkalinity as $CaCO_3$ mg/l	310.30	298.20	242.30	242.40	241.10	298.60
Dissolved Iron mg/l	1.450	.050	5.600	3.550	.050	2.860
Iron as Fe (Total) mg/l	2.160	18.500	16.300	7.200	21.000	8.350
Manganese as Mn (Tot) mg/l	.190	.690	.470	.210	4.780	.240
Suspended Solids mg/l	75.0	1,022	646	579	56,433	28.0
Total Dissolved Solids mg/l	2,238	784	524	420	3,180	1,760
pH Units	7.60	8.00	8.00	8.00	7.60	7.80

NA - Not Available

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SURFACE WATER QUALITY MONITORING

WELLINGTON COAL CLEANING PLANT

D

Sample Date:	11-14-83
Aluminum, Al mg/l	.058
Ammonia, NH3 mg/l	.60
Arsenic, As mg/l	<.001
Barium, Ba mg/l	.056
Bicarbonate, HNO3 mg/l	385.52
Boron, B mg/l	.31
Cadmium, Cd mg/l	<.001
Calcium,Ca mg/l	180.00
Carbonate, CO3 mg/l	<.01
Chloride, Cl mg/l	48.00
Chromium, Cr mg/l	<.001
Conductivity, umhos/cm	3,340
Copper, Cu mg/l	.030
Flouride, F mg/l	.27
Iron, Fe (total) mg/l	.250
Lead, Pb mg/l	.070
Magnesium, Mg mg/l	134.40
Manganese, Mn mg/l	.160
Mercury, Hg mg/l	<.0002
Molybdenum, Mo mg/l	.020
Nickel, Ni mg/l	.03
Nitrate, NO3-N mg/l	1.20
Nitrite, NO2-N mg/l	<.01
Phosphate, PO4 mg/l	.68
Potassium, K mg/l	6.3
Selenium, Se mg/l	<.001
Sodium, Na mg/l	259.00
Sulfate, SO4 mg/l	1,130
Sulfide, S mg/l	.65
Suspended Solids mg/l	19.0
Total Dissolved Solids mg/l	2,188
Zinc, Zn mg/l	.011
pH Units	8.00

SURFACE WATER QUALITY MONITORING

WELLINGTON COAL CLEANING PLANT

D

Sample Date:	1-14-83	4-25-83	8-17-83
Aluminum, Al mg/l	0.240	0.08	.250
Ammonia, NH3 mg/l	0.52	0.39	.10
Arsenic, As mg/l	<0.001	<0.001	<.001
Barium, Ba mg/l	0.055	0.240	.220
Bicarbonate, HNO3 mg/l	364.50	283.00	331.84
Boron, B mg/l	0.150	0.08	.075
Cadmium, Cd mg/l	<0.001	<0.001	<.001
Calcium,Ca mg/l	140.00	68.00	112.00
Carbonate, CO3 mg/l	<0.01	19.20	<.01
Chloride, Cl mg/l	29.30	11.80	50.0
Chromium, Cr mg/l	<0.001	<0.001	.030
Conductivity, umhos/cm SM 205	1,650	900	1,430
Copper, Cu mg/l	0.010	<0.01	<.001
Flouride, F mg/l	0.22	0.32	.21
Iron, Fe (total) mg/l	2.360	46.700	33.950
Lead, Pb mg/l	<0.001	<0.001	<.001
Magnesium, Mg mg/l	71.50	43.20	81.60
Manganese, Mn mg/l	0.105	1.050	1.180
Mercury, Hg mg/l	<0.0002	<0.0002	<.0002
Molybdenum, Mo mg/l	<0.001	<0.01	.011
Nickel, Ni mg/l	<0.001	0.06	<.010
Nitrate, NO3-N mg/l	0.32	0.81	.70
Nitrite, NO2-N mg/l	0.04	0.03	.05
Phosphate, PO4 mg/l	0.490	1.96	1.65
Potassium, K mg/l	3.90	6.10	3.5
Selenium, Se mg/l	<0.001	<0.001	<.001
Sodium, Na mg/l	116	63.0	82.0
Sulfate, SO4 mg/l	356	209	442
Sulfide, S mg/l	0.57	0.80	.50
Suspended Solids mg/l	205	2,656	802
Total Dissolved Solids mg/l	1,075	677	940
Zinc, Zn mg/l	0.010	0.005	.018
pH Units	7.90	7.90	7.90

SURFACE WATER QUALITY DATA

Wellington Coal Cleaning Plant

Sampling Date:	3-27-81	4-22-81	5-21-81	6-23-81	7-27-81	8-21-81
D						
Flow (gpm)	NA	NA	NA	NA	NA	NA
Acidity as $CaCO_3$ mg/l	< .1	5.00	< .01	< .01	< .01	10.80
Alkalinity as $CaCO_3$ mg/l	300.00	314.00	274.00	290.00	250.00	230.00
Dissolved Iron mg/l	.580	.430	.660	.020	.040	.633
Iron as Fe (Total) mg/l	.770	1.220	.850	.400	.310	.978
Manganese as Mn (Tot) mg/l	.170	.180	.130	.030	.028	.146
Suspended Solids mg/l	27.0	94.0	13.0	110	25.0	2,544
Total Dissolved Solids mg/l	1,900	2,050	210	2,150	2,100	1,200
pH Units	7.90	8.10	8.00	8.40	8.10	7.60

Sampling Date:	9-23-81	10-13-81	11-30-81	12-28-81	2-12-81	2-24-82
D						
Flow (gpm)	NA	NA	NA	NA	NA	NA
Acidity as $CaCO_3$ mg/l	10.00	6.00	4.00	<.01	16.00	16.00
Alkalinity as $CaCO_3$ mg/l	330.00	202.70	280.10	339.30	304.40	328.00
Dissolved Iron mg/l	.335	.065	.025	.110	.030	1.360
Iron as Fe (Total) mg/l	.930	.449	.360	.330	1.390	2.020
Manganese as Mn (Tot) mg/l	.144	.038	.035	.039	.170	.190
Suspended Solids mg/l	47.0	10.7	39.0	52.0	11.7	17.0
Total Dissolved Solids mg/l	2,550	1,200	1,980	1,900	1,700	1,625
pH Units	8.00	7.40	7.90	8.20	7.20	7.60

Sampling Date:	3-29-82	4-22-82	5-18-82	6-9-82	8-23-82	9-23-82
D						
Flow (gpm)	NA	NA	NA	NA	NA	NA
Acidity as $CaCO_3$ mg/l	26.00	<.01	< .01	< .01	14.00	7.00
Alkalinity as $CaCO_3$ mg/l	304.10	306.10	252.10	221.00	183.50	296.50
Dissolved Iron mg/l	1.230	7.370	7.300	2.550	4.120	2.350
Iron as Fe (Total) mg/l	1.800	21.400	18.300	7.600	5.700	8.240
Manganese as Mn (Tot) mg/l	.200	.740	.570	.250	.925	.246
Suspended Solids mg/l	55.0	1,302	828	663	1,680	40.0
Total Dissolved Solids mg/l	2,286	842	520	420	2,800	1,810
pH Units	7.70	8.00	8.00	8.00	7.60	8.00

NA - Not Available

CHEMTECH

CHEMICAL AND BACTERIOLOGICAL ANALYSES

367 SOUTH COMMERCE LOOP
OREM, UTAH 84057
(801) 226-8822

2875 MAIN
SUITE #101
SALT LAKE CITY, UTAH 84115
(801) 483-1162

DATE: 5-19-87

TO: Kaiser Coal Corp.
P.O. Box 10
Sunnyside, UT 84539

SAMPLE SOURCE: Sunnyside Mine, Submitted on 4-14-87

CERTIFICATE OF ANALYSIS

SAMPLE ID:	Clear Water 004	NC 2-1 4-8-87 @1545	DATE(TIME) ANALYSIS
LAB #:	U018177	U018178	
PARAMETER			
pH Units (lab)	8.53	7.70	4-14 @1000
Conductivity (lab), umhos/cm	1,820	110	4-22 @1450
Bicarbonate as HCO_3, mg/l	511	49.7	4-15 @1000
Carbonate as CO_3, mg/l	18.0	0	4-15 @1000
Chloride as Cl, mg/l	49.4	2.6	4-17 @1100
Hardness as $CaCO_3$, mg/l	251	51.1	4-14 @1030
Magnesium as Mg, mg/l	45.3	4.4	4-24 @1030
Potassium as K, mg/l	10.1	1.7	4-24 @1030
Calcium as Ca, mg/l	52.8	15.8	4-24 @1030
Sodium as Na, mg/l	345	3.6	4-24 @1030
Sulfate as SO_4, mg/l	510	19.9	4-20 @1100
TDS, mg/l	1,300	89	4-16 @1350
TSS, mg/l	54	123	4-18 @1710
Settleable Solids, ml/l	0.3	<.1	4-14 @1250
Oil & Grease, mg/l	<.5	<.5	4-20 @1630
Iron as Fe, mg/l	0.21	6.82	4-24 @1030
Manganese as Mn, mg/l	0.015	0.062	4-24 @1030
Cation, meq/l	21.6	1.35	
Anion, meq/l	21.0	1.27	
	1.41		

Rex Henderson

CHEMTECH

CHEMICAL AND BACTERIOLOGICAL ANALYSES

367 SOUTH COMMERCE LOOP
OREM, UTAH 84057
(801) 226-8822

2875 MAIN
SUITE #101
SALT LAKE CITY, UTAH 84115
(801) 483-1162

DATE: 6-24-87

TO: Kaiser Coal Corp.
P.O. Box 10
Sunnyside, UT 84539

SAMPLE SOURCE: Wellington, Submitted on 6-1-87

CERTIFICATE OF ANALYSIS

SAMPLE ID:	DH 86-2 5-30-87 @1245	GW-1 5-30-87	DATE(TIME) ANALYSIS	
LAB #:	U019068	U019069		
PARAMETER				
pH Units (lab)	8.35	7.78	6-2	@1000
Conductivity (lab), umhos	1,870	10,720	6-8	@1200
Bicarbonate as HCO_3, mg/l	416	764	6-5	@1000
Carbonate as CO_3, mg/l	12.7	0	6-5	@1000
Chloride as Cl, mg/l	23.7	117	6-9	@1000
Hardness as $CaCO_3$, mg/l	615	2,180	6-8	@0800
Magnesium as Mg, mg/l	102	355	6-18	@1400
Potassium as K, mg/l	13.5	13.1	6-18	@1400
Calcium as Ca, mg/l	120	288	6-18	@1400
Sodium as Na, mg/l	195	1,640	6-18	@1400
Sulfate as SO_4, mg/l	780	5,100	6-17	@1200
TDS, mg/l	1,460	9,100	6-3	@1030
Fluoride as F, mg/l	0.99	3.09	6-10	@1300
Sulfide as S, mg/l	<.1	<.1	6-2	@1030
Ammonia as NH_3-N, mg/l	1.12	0.31	6-10	@0900
Nitrate as NO_3-N, mg/l	0.19	0.63	6-15	@1150
Nitrite as NO_2-N, mg/l	0.014	0.017	6-1	@1100
OrthoPhosphate as PO_4-P, mg/l	0.016	0.015	6-1	@1000

Rex Henderson

Rex Henderson

CHEMTECH

CHEMICAL AND BACTERIOLOGICAL ANALYSES

367 SOUTH COMMERCE LOOP
OREM, UTAH 84057
(801) 226-8822

2875 MAIN
SUITE #101
SALT LAKE CITY, UTAH 84115
(801) 483-1162

TO: Geiser Coal Corp.
P.O. Box 10
Price, UT 84539

SAMPLE SOURCE: Wellington, Submitted on 6-1-87

CERTIFICATE OF ANALYSIS

SAMPLE ID:	DH 86-2 5-30-87 @1245	GW-1 5-30-87	DATE(TIME) ANALYSIS
LAB #:	U019068	U019069	
PARAMETER			
Iron (T) as Fe, mg/l	1.12	2.08	6-18 @0900
Aluminum (D) as Al, mg/l	<.1	<.1	6-18 @1400
Arsenic (D) as As, mg/l	0.011	<.01	6-18 @1400
Barium (D) as Ba, mg/l	<.1	<.1	6-18 @1400
Boron (D) as B, mg/l	0.52	0.78	6-11 @1000
Cadmium (D) as Cd, mg/l	<.01	<.01	6-18 @1400
Chromium (D) as Cr, mg/l	<.01	<.01	6-18 @1400
Copper (D) as Cu, mg/l	<.01	<.01	6-18 @1400
Iron (D) as Fe, mg/l	<.01	<.01	6-18 @1400
Manganese (D) as Mn, mg/l	0.74	0.10	6-18 @1400
Mercury (D) as Hg, mg/l	<.0002	<.0002	6-18 @1400
Molybdenum (D) as Mo, mg/l	0.12	<.1	6-18 @1400
Nickel (D) as Ni, mg/l	<.01	<.01	6-18 @1400
Selenium (D), as Se, mg/l	<.002	<.002	6-18 @1400
Zinc (D), as Zn, mg/l	0.045	<.01	6-18 @1400
Cation, meq/l	23.29	115.3	
Anion, meq/l	24.38	122.2	

— 2.91

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CHEMTECH

CHEMICAL AND BACTERIOLOGICAL ANALYSES

367 SOUTH COMMERCE LOOP
OREM, UTAH 84057
(801) 226-8822

2875 MAIN
SUITE #101
SALT LAKE CITY, UTAH 84115
(801) 483-1162

DATE: 5-19-87

TO: Kaiser Coal Corp.
P.O. Box 10
Sunnyside, UT 84539

SAMPLE SOURCE: Sunnyside Mine, Submitted on 4-14-87

CERTIFICATE OF ANALYSIS

SAMPLE ID:	Clear Water	NC 2-1 4-8-87 @1545	DATE(TIME) ANALYSIS
LAB #:	U018177	U018178	
PARAMETER			
pH Units (lab)	8.53	7.70	4-14 @1000
Conductivity (lab), umhos/cm	1,820	110	4-22 @1450
Bicarbonate as HCO_3, mg/l	511	49.7	4-15 @1000
Carbonate as CO_3, mg/l	18.0	0	4-15 @1000
Chloride as Cl, mg/l	49.4	2.6	4-17 @1100
Hardness as $CaCO_3$, mg/l	251	51.1	4-14 @1030
Magnesium as Mg, mg/l	45.3	4.4	4-24 @1030
Potassium as K, mg/l	10.1	1.7	4-24 @1030
Calcium as Ca, mg/l	52.8	15.8	4-24 @1030
Sodium as Na, mg/l	345	3.6	4-24 @1030
Sulfate as SO_4, mg/l	510	19.9	4-20 @1100
TDS, mg/l	1,300	89	4-16 @1350
TSS, mg/l	54	123	4-18 @1710
Settleable Solids, ml/l	0.3	<.1	4-14 @1250
Oil & Grease, mg/l	<.5	<.5	4-20 @1[illegible]
Iron as Fe, mg/l	0.21	6.82	4-24 @1030
Manganese as Mn, mg/l	0.015	0.062	4-24 @1030
Cation, meq/l	21.6	1.35	
Anion, meq/l	21.0	1.27	

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Body: Data on file w/the Division indicate the following:

sw (surface water points)

Date (collected)	Points sampled:	Comments:
1-14-83	A, B, D	No flows
4-25-83	A, B, D	No flows
8-17-83	A, B, D	No flows
11-14-83	A, B, D	No flows
1-13-84	1, 2, 4, 5, 6, 7, 8	No flows
3-14-84	1, 2, 4, 5, 6, 7, 8	
5-11-84	1, 2, 4, 5, 6, 7, 8	
7-27-84	1, 2, 4, 5, 6, 7, 8	
9-21-84	1, 2, 4, 5, 6, 7, 8	for #1, 2, 4 only flows attached for sw-1, 2, 4, only.
11-27-84	1, 2, 4, 5, 6, 7, 8	
1-29-85	1, 2, 4, 5, 6, 7, 8	
3-18-85	BCW, 1, 2, 4, 5, 6, 7, 8	
5-28-85	BCW, 1, 2, 4, 5, 6, 7, 8	
7-31-85	BCW, 1, 2, 4, 5, 6, 7, 8	
9-26-85	BCW, 1, 2, 4, 5, 6, 7, 8	
11-22-85	BCW, 1, 2, 4, 5, 6, 7, 8	

2-14-86	1, 2, 4, 5, 6, 7, 8	Flow attached for #1, 2, 3*, 4 *no quality data.

Ground Water Wells:

11-29-84	#1-14	Note: SW-5 - no flows
2-18-85	#1-14	SW-6 - no flows
		SW-7 - no flows
5-28-85	#1-14	SW-8 - no flows
8-30-85	#1-14	
11-22-85	#1-14	

Summary of Dates on file

Surface Water:		Comment
1983:	January, April, August, November	1st 3 only 3 pts.
1984:	January, March, May, July, Sept. Nov.	
1985:	January, March, May, July, Sept., Nov.	

Groundwater:

1984:	November
1985:	Feb., May, August, Nov.
1986:	No samples submitted