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research & consulting

VIA: U.S. Mail & E-mail

November 18, 2014

Daron Haddock
Utah Division of Oil, Gas & Mining Coal Program
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

RE: Revised "clean" copy version of: An Application to Revise Sediment Control Methods at the Wellington Site C/007/0012

Dear Mr. Haddock:

Attached please find the response to the Division's conditional approval that was sent to me in a letter from you dated October 28, 2014.

The approved maps and two "clean" copies along with C1 and C2 forms have also been included.

Sincerely,

Patrick D. Collins, Ph.D.
Resident Agent

Enclosures

cc: T. Stanley, R. Dial

RECEIVED
NOV 20 2014

DIV. OF OIL, GAS & MINING

APPLICATION FOR COAL PERMIT PROCESSING

Permit Change New Permit Renewal Exploration Bond Release Transfer

Permittee: Price River Terminal

Mine: Wellington Prep Plant

Permit Number: C/007/0012

Title: Clean copy of: An Application to Revise Sediment Control Methods at Wellington

Description, Include reason for application and timing required to implement:
Improvements to Sediment Control Measures

Instructions: If you answer yes to any of the first eight (gray) questions, this application may require Public Notice publication.

- | | |
|---|---|
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 1. Change in the size of the Permit Area? Acres: _____ Disturbed Area: _____ <input type="checkbox"/> increase <input type="checkbox"/> decrease. |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 2. Is the application submitted as a result of a Division Order? DO# _____ |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 4. Does the application include operations in hydrologic basins other than as currently approved? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 6. Does the application require or include public notice publication? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 7. Does the application require or include ownership, control, right-of-entry, or compliance information? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 9. Is the application submitted as a result of a Violation? NOV # _____ |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 10. Is the application submitted as a result of other laws or regulations or policies?
<i>Explain:</i> _____ |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 11. Does the application affect the surface landowner or change the post mining land use? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2) |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 13. Does the application require or include collection and reporting of any baseline information? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 15. Does the application require or include soil removal, storage or placement? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 16. Does the application require or include vegetation monitoring, removal or revegetation activities? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 17. Does the application require or include construction, modification, or removal of surface facilities? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 18. Does the application require or include water monitoring, sediment or drainage control measures? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 19. Does the application require or include certified designs, maps or calculation? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 20. Does the application require or include subsidence control or monitoring? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 21. Have reclamation costs for bonding been provided? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream? |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | 23. Does the application affect permits issued by other agencies or permits issued to other entities? |

Please attach one (1) review copy of the application. (2 copies included)

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations herein.

PATRICK D. COLLINS
 Print Name

Patrick Collins Reg. Ag. 11/18/14
 Sign Name, Position, Date

Subscribed and sworn to before me this 18th day of November, 2014

Darlene L. Gray
 Notary Public

My commission Expires: April 24, 2016

Attest: State of Utah } ss:
 County of Utah



For Office Use Only:	Assigned Tracking Number:	Received by Oil, Gas & Mining <div style="text-align: center; color: blue; font-weight: bold; font-size: 1.2em;">RECEIVED</div> <div style="text-align: center; color: red; font-weight: bold; font-size: 1.2em;">NOV 20 2014</div> <div style="text-align: center; color: blue; font-weight: bold; font-size: 1.2em;">DIV. OF OIL, GAS & MINING</div>
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7.52 SEDIMENT CONTROL MEASURES (R645-301-752)

All sediment control measures except for the Alternative Sediment control Areas (ASCA's) have been addressed previously in Section 7.42. A discussion for the ASCA's follows.

There have been seven areas identified for ASCA's. These areas, numbered ASCA #1 through ASCA #7, are shown on Dwg. F9-177 (rev.). The disturbed acreage and estimated disturbed area runoff from the 10-year, 24-hour storm has been estimates and area shown in Volume II - Hydrology Appendix. These areas are not tributary to a sediment pond. Sediment control from these areas is achieved by berm, silt fences, bales and/or gouges in drainageways, as discussed in the Appendix.

A summary of the total Alternative Sediment Control areas is presented on the following table. The total area of the ASCA's is 80.16 acres which represents about 20% of the total disturbed site within the permit area.

ALTERNATIVE SEDIMENT CONTROL AREAS			
(ASCA's)			
ASCA #	AREA (acres)	DISTURBED AREA 10-Year 24-Hour Runoff Volume (Acre-Feet)	ALTERNATIVE SEDIMENT CONTROL
1	45.00	2.9	Depression storage and straw bales, silt fences or erosion control waddles.
2	9.41	0.4	Silt fence, straw bales or erosion control waddles.
3	12.64	0.3	Silt fence, straw bales or erosion control waddles.
4	7.80	0.04	Silt fence, erosion control waddles or straw bales.
5	2.47	0.1	Berm and silt fence, straw bales or erosion control waddles.
6	0.35	0.02	Straw bales silt fences or erosion control waddles.
7	2.52	0.24	Berm around topsoils stockpile; remainder of area uses silt fences, straw bales, berms, erosion control waddles, and/or gouges.
TOTAL	80.16	4.00	

A typical installation guide of the erosion control waddle, silt fence and straw bale barrier is provided on the following sheets.

The Operator may also elect to excavate sediment traps at sediment control inlets and/or outlets. The minimum size for the sediment traps, if used by the Operator, shall be 2 feet by 2 feet by 6 inches deep. Erosion control measures will be inspected, cleaned and repaired following significant rainfall events and at no time will be non-functional or ineffective in preventing additional contribution of suspended solids to the stream flow or runoff outside the permit area.

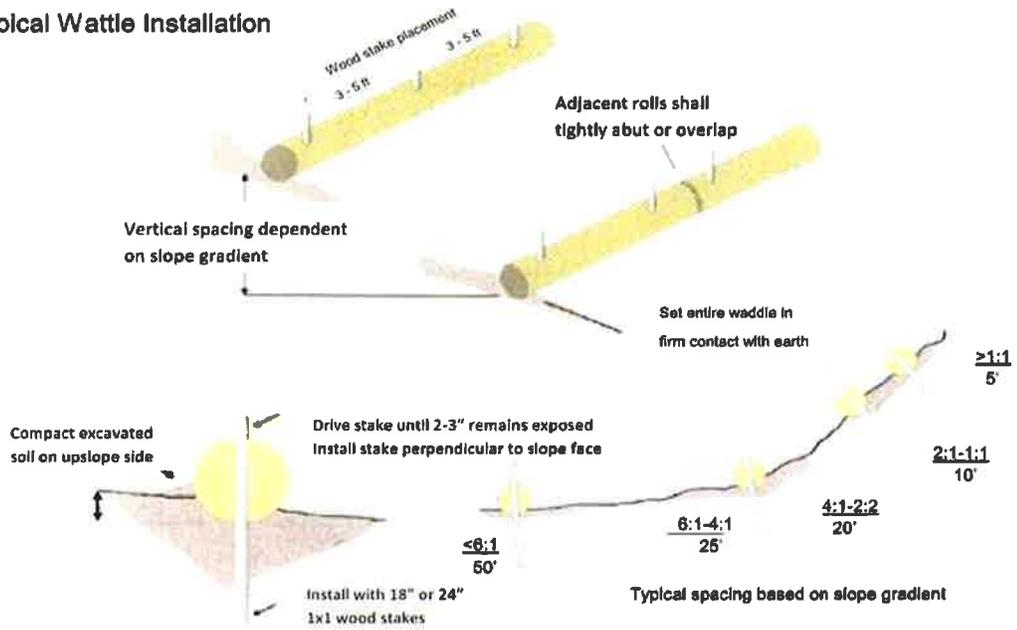
Straw bales, silt fences and/or erosion control waddles will be used in within and adjacent to the ASCA's and other areas as shown on the Hydrologic Evaluation Map (F9-177). As a means to control erosion near and around the Siaperas Ditch area at the Wellington site, silt fences, straw bales, erosion control waddles and/or gouges will be used. "Gouging" the ground surface is a method used to control runoff sediments and erosion as well as to harvest water by the creation of small basins resulting in microenvironments that can also be used to enhance revegetation success of reclaimed lands in the semi-arid West. These gouges, or micro-basins, can be created by specially designed heavy equipment, as well as by using more common equipment such as a backhoe or trackhoe. The recommended depth for the micro-basins is 18 to 24 inches, with a recommended width that can be equal to the size of the backhoe bucket (*The Practical Guide to Reclamation*, State of Utah, Division of Oil, Gas & Mining, Salt Lake City, UT).

The gouges will be created at the specifications mentioned above. The finished surface would consist of at least 50% basins, meaning at least half of the surface area will consist of the gouges; their average depths will exceed 18 inches. Taken from the same reference cited above, using a random and overlapping pattern should make it impossible for water to flow downslope with a slope of 1h:1.5v (the Siaperas Ditch area is much less than this slope angle).

Taken from the Western U.S. Precipitation Frequency Maps published in 1973 (NOAA, Atlas 2, HDSC/NWS, Office of Hydrology, Silver Spring, MD) and using the 10-year, 24-hour precipitation event of 1.8 inches, and with an effective basin area of 50% of the total surface area, the depth of water in the micro-basins would be only 3.6 inches (this assumes absolutely no infiltration to the existing soils). Thus, with proper construction of gouges in the area, there would be no runoff at all from this precipitation event. That said, clean-out or reconstruction of the gouges would occur only if the average basin depths were to decrease by natural weathering processes to less than 3.6 inches.

Similarly, using the much larger 100-year, 24-hour precipitation event of 2.6 inches and the same 50% basin area, the depth of water in the depressions would only be 5.2 inches. Using an even more conservative scenario, if the basin area were to make up only 1/3 of the total surface area, the water depth in the gouges would be only 7.8 inches, which is less than half full of their capacity.

Typical Wattle Installation

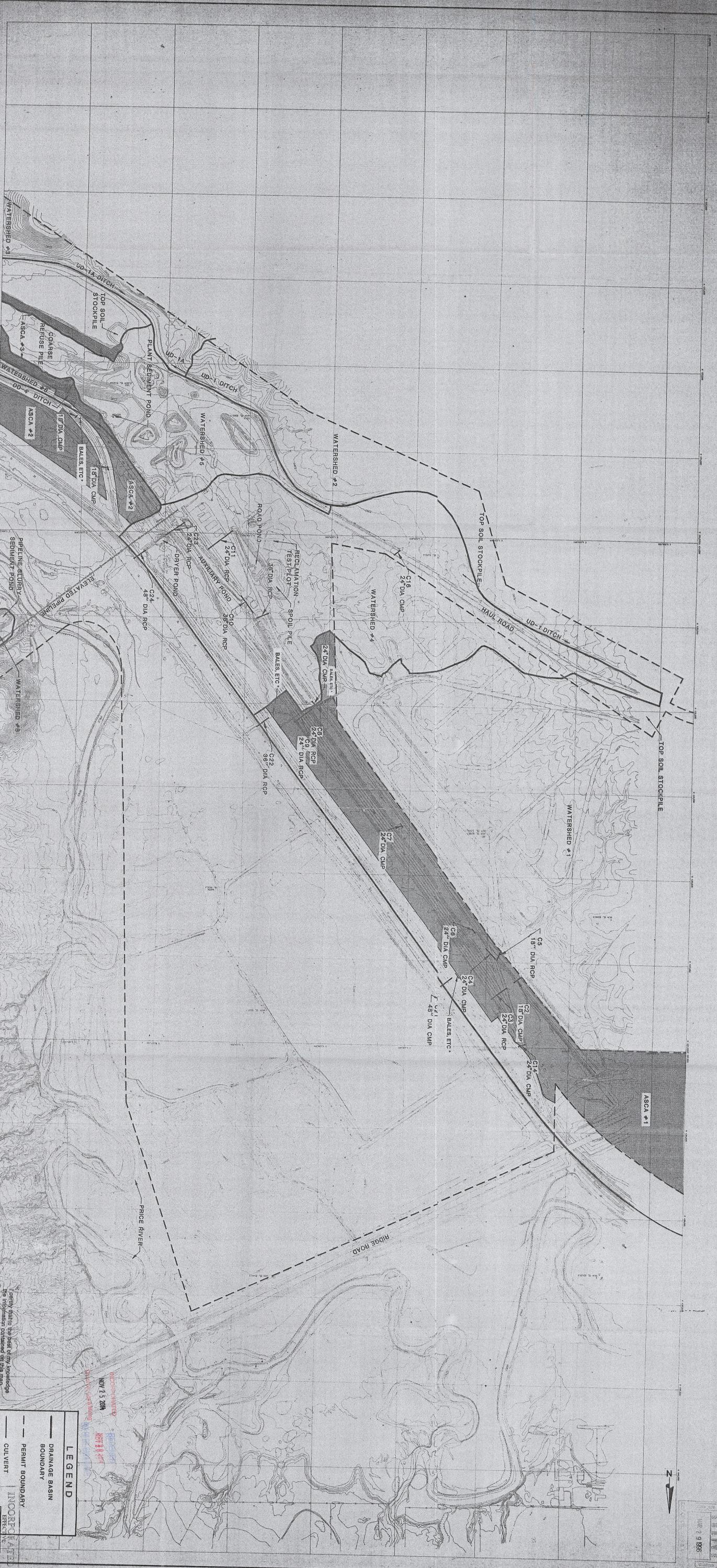


INCORPORATED

NOV 25 2014

Div. of Oil, Gas & Mining

DATE: JUN 2 9 1995
 DRAWING NO. ES-1171
 SHEET 2 OF 2



LEGEND

- DRAINAGE BASIN BOUNDARY
- - - PERMIT BOUNDARY
- CULTURE
- ALTERNATIVE SEDIMENT CONTROL AREA

CASTLE VALLEY RESOURCES, INC.
 WELLINGTON COAL PREPARATION PLANT
 HYDROLOGIC EVALUATION MAP

MT. NEMO SCIENTIFIC
 SALT LAKE CITY, UTAH

SCALE: 1" = 200'
 HORIZONTAL SCALE: 1" = 200'
 VERTICAL SCALE: 1" = 200'

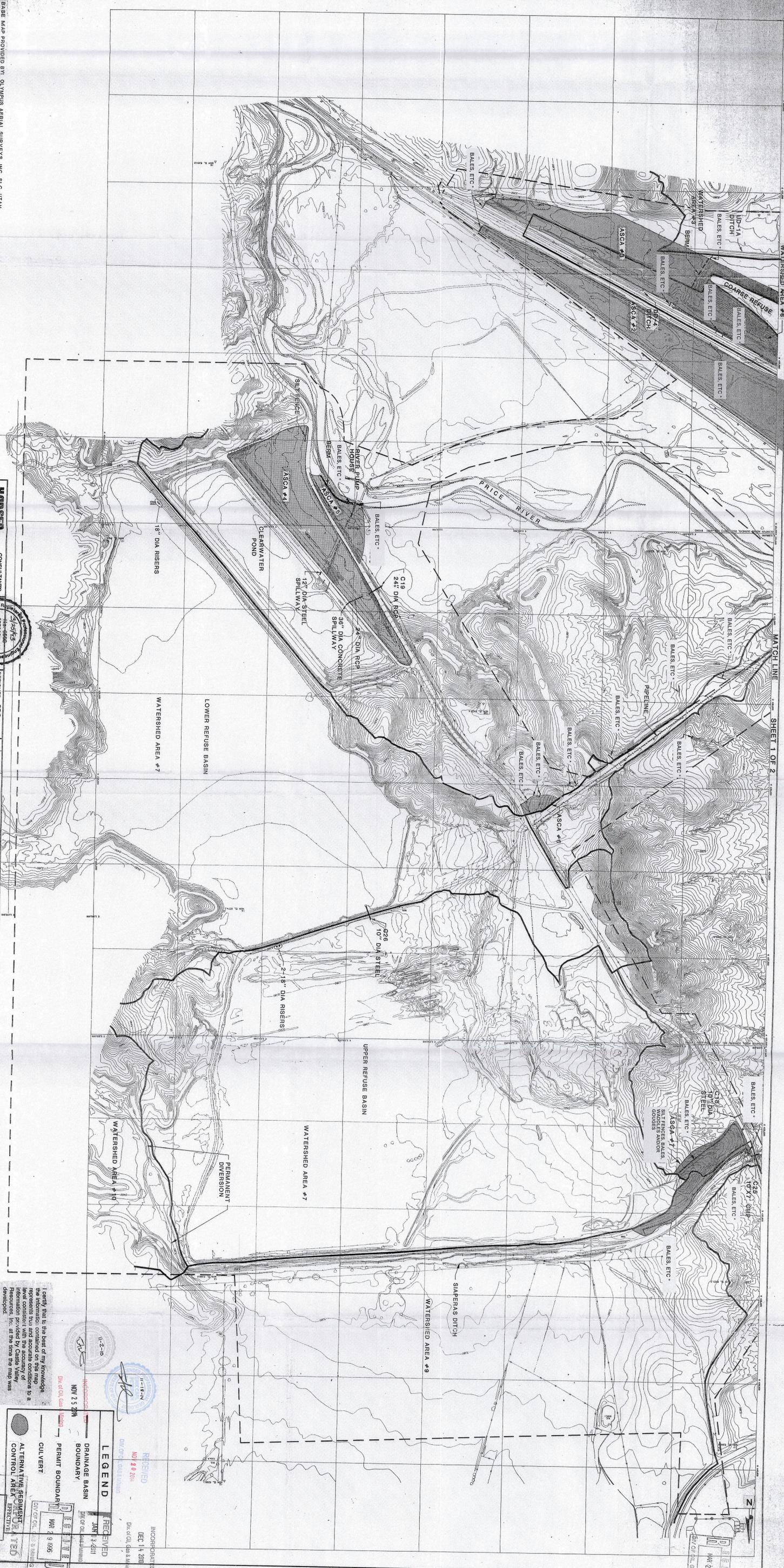
DESIGNED: GDC
 CHECKED: DRB
 DATE: SEPT. 1991

CONSULTANTS:
 ENGINEERS
 SALT LAKE CITY

HANSEN ALLEN & LUCE

BASE MAP PROVIDED BY: QUINCY AERIAL SURVEYS, INC., SLC, UTAH
 CONTOUR INTERVAL: 2 FEET
 PHOTOGRAPHIC DATE: JUNE 10, 1981

DRIVING IN THE RAIN
 1 OF 2
 93-01-100



HANSEN ALLEN & LUCE
CONSULTANTS
ENGINEERS
Salt Lake City

DESIGNED	GDC	NOV 24	REVISED ASCA'S IN ACCORDANCE WITH DIRECTIVE TECH-003
DRAWN	DRB	NOV 24	
CHECKED	GJP	NOV 24	
DATE	NOV 24	NOV 24	

SCALE	1" = 200'
VERTICAL SCALE	1" = 20'

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SALT LAKE CITY, UTAH

CASTLE VALLEY RESOURCES, INC.
WELLINGTON COAL PREPARATION PLANT
HYDROLOGIC EVALUATION MAP

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DIVISION OF WATER RESOURCES

LEGEND

- DRAINAGE BASIN BOUNDARY
- PERMIT BOUNDARY
- CULVERT
- ALTERNATIVE TREATMENT CONTROL AREA

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JAN 3 2011
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NOV 25 2011
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FEB 12 2011
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DEC 14 2010
DIVISION OF WATER RESOURCES

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JAN 3 2011
DIVISION OF WATER RESOURCES

BASE MAP PROVIDED BY OLYMPIAN AERIAL SURVEYS, INC. S.L.C. UTAH
CONTOUR INTERVAL - 2 FEET
PHOTOGRAPHIC DATE - JUNE 10, 1991