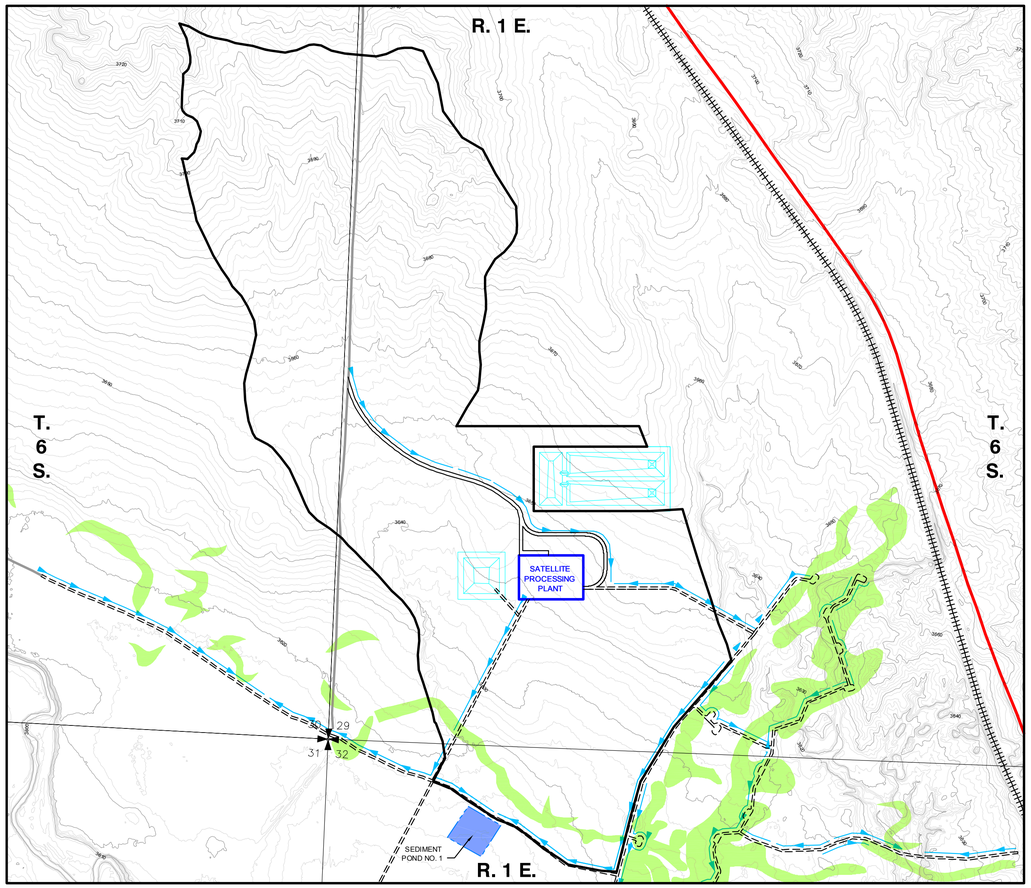


DRAINAGE AREA
SCALE: 1" = 500'

AREA CAPACITY TABLE

ELEVATION (ft)	AREA (ac)	AVG. AREA (ac)	CAPACITY (ac-ft) INCR.	CAPACITY (ac-ft) ACCUM.
3598.0	0.74			0.00
		0.79	1.58	
3600.0	0.84			1.58
		0.90	1.80	
3602.0	0.95			3.38
		1.01	2.02	
3604.0	1.06			5.40
		1.12	2.24	
3606.0	1.18			7.64
		1.25	2.50	
3608.0	1.31			10.14
		1.38	2.76	
3610.0	1.45			12.90
		1.52	3.04	
3612.0	1.59			15.94

LEGEND

- COUNTY ROAD
- PROPOSED PRIMARY ACCESS ROAD
- PROPOSED SECONDARY ACCESS ROAD
- RAILROAD
- PROPOSED ROAD DITCH
- ORE BODY
- FACILITY POND

RESERVOIR DESIGN INFORMATION

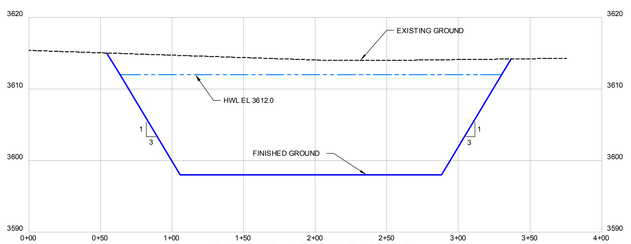
DRAINAGE AREA = 0.37 mi^2

SURFACE AREA AT HWL = 1.59 ac

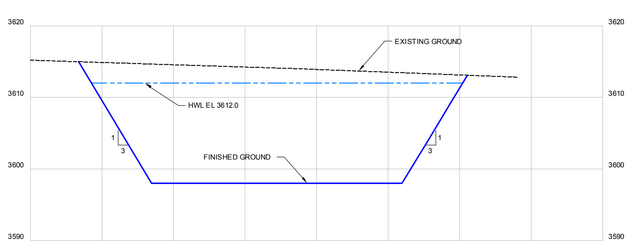
MAXIMUM CAPACITY = 15.94 ac-ft

EMERGENCY SPILLWAY HYDRAULICS

NOTE: THIS STRUCTURE IS ENTIRELY INCISED AND HAS NO EMBANKMENT TO PROTECT. THEREFORE, NO SPILLWAY HYDRAULICS ARE REQUIRED.



CROSS SECTION A-A'
SCALE: HORZ. 1" = 50', VERT. 1" = 10'



CROSS SECTION B-B'
SCALE: HORZ. 1" = 50', VERT. 1" = 10'

SEDIMENT YIELD CALCULATIONS

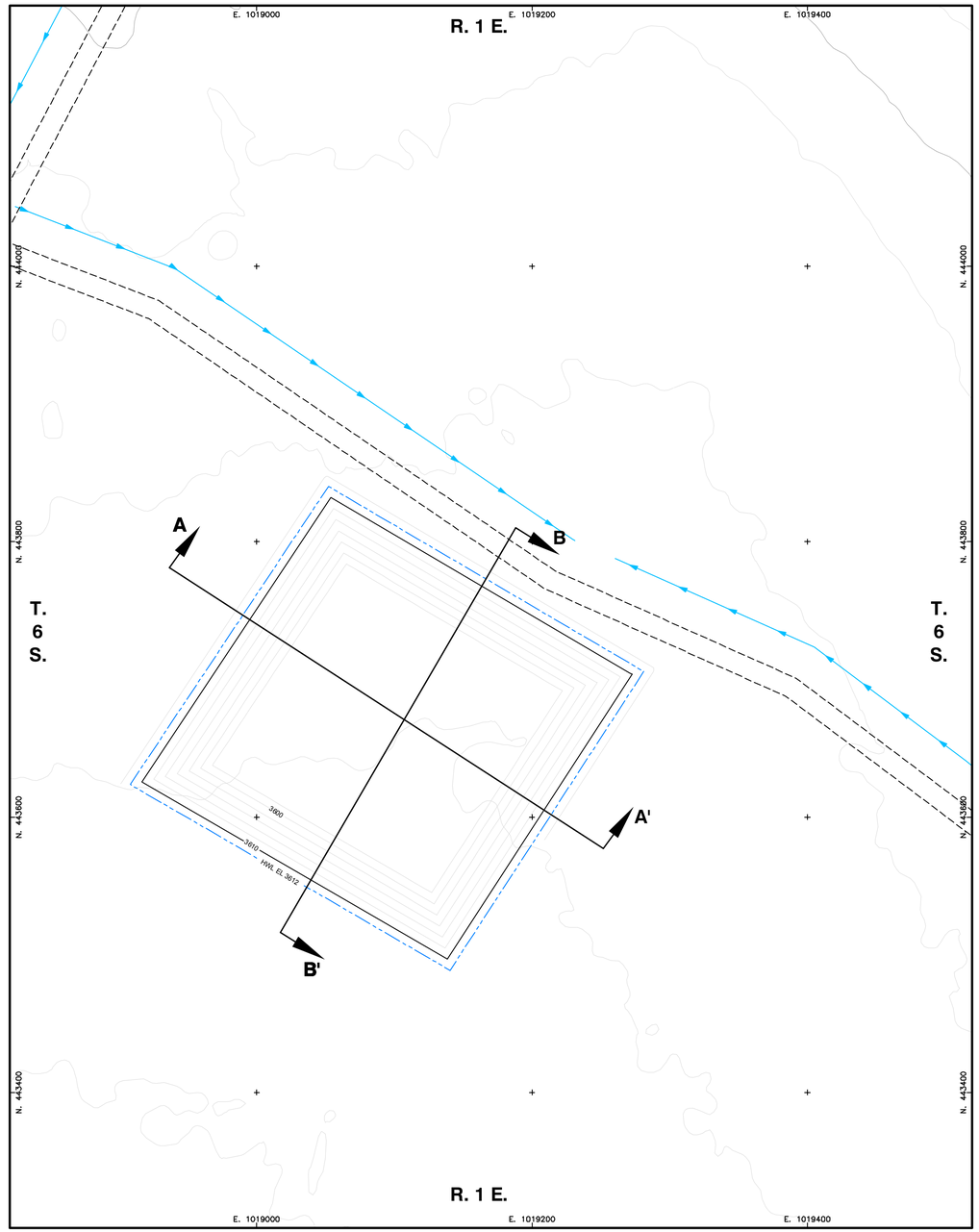
SOURCE AREA (ac)	RAINFALL FACTOR (R)	SOIL ERODIBILITY (K)	TOPOGRAPHIC FACTOR (LS)	COVER MANAGEMENT (C)	SUPPORT PRACTICE (P)	SOIL LOSS (t/ac/yr)	DELIVERY RATIO	ANNUAL SEDIMENT YIELD (ac-ft)
237.6	50	0.32	1.26	0.07	1	1.41	0.36	0.07

NOTES: 1. SEDIMENT CAPACITY WAS DETERMINED BY THE APPLICATION OF THE REVISED UNIVERSAL SOIL LOSS EQUATION (RUSLE) TO SEDIMENT SOURCE AREA(S).
2. FOR THESE CALCULATIONS SEDIMENT DENSITY WAS ASSUMED TO EQUAL 80 lb/cu ft.

HYDROLOGIC DESIGN STORM CALCULATIONS [1]

DRAINAGE BASIN PARAMETERS: DRAINAGE AREA (sq-mi)	WATERCOURSE LENGTH (mi)	ELEVATION DIFFERENCE (ft)	CURVE NO. (CN)	INFILTRATION LOSS (iph)	5-YR, 24-HR STORM: 5-YR, 24-HR PRECIP. (in)	PEAK INFLOW (cfs)	RUNOFF VOLUME (ac-ft)
0.37	1.26	118	78	0	2.50	125.7	15.6

NOTES: 1. RUNOFF VOLUMES AND PEAK INFLOWS WERE COMPUTED BY THE RAINFALL/RUNOFF PROGRAM "TRIHYDRO" USING THE SCS TYPE II DISTRIBUTION.



SITE PLAN
SCALE: 1" = 50'

This plate is provided to fulfill the requirements of ARSD 74:29:02:11(9).

N

CONSULTANT
WWC ENGINEERING

REVISIONS

#	DRAWN	CHECKED	APPROVED	DATE

SIGNATURE OF PREPARER

REF

CHECK SCALES
If this bar does not measure 1 inch this map is not at its original scale

PLOT DATE 28 September 2012
DRAWN DAVE C. JOHNSON
PREPARER DALE E. BROWN

DATE 28 September 2012
PDF FILE
COORDS NAD 27, South Dakota State Plane South (feet)
CAD FILE K:\Powertech\11270\DWGS\SP-1_EXHIBIT.dwg

POWERTECH (USA) INC.

Plate 5.3-12

Sediment Pond No. 1

Dewey-Burdock Project

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