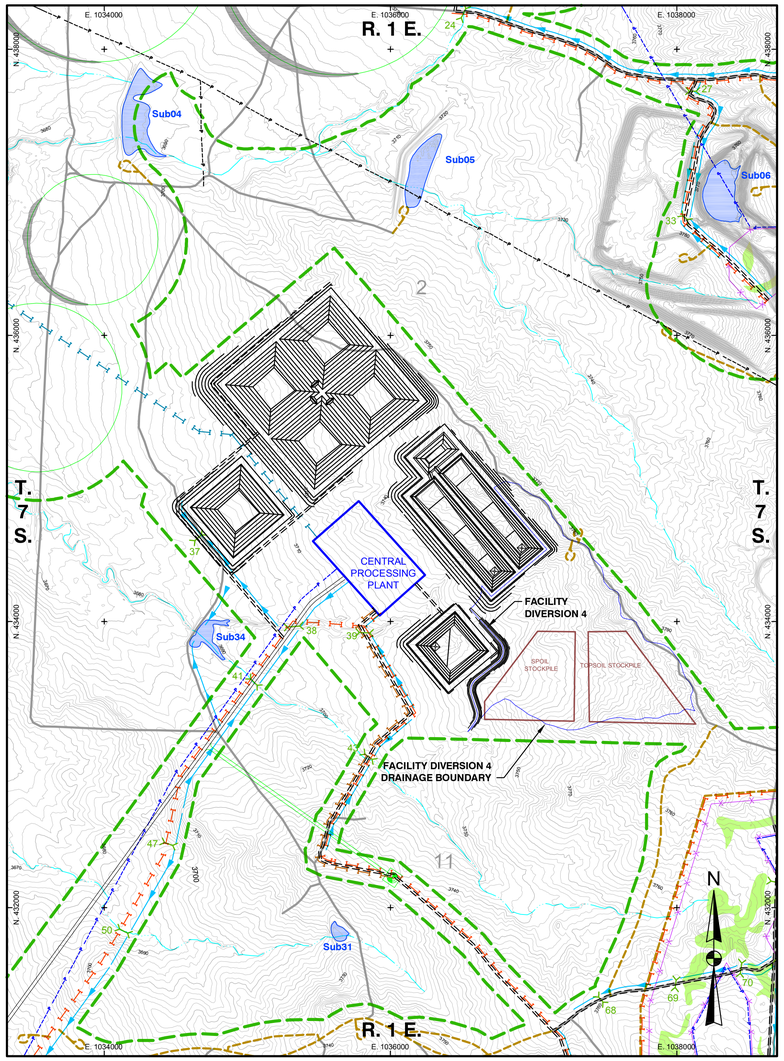
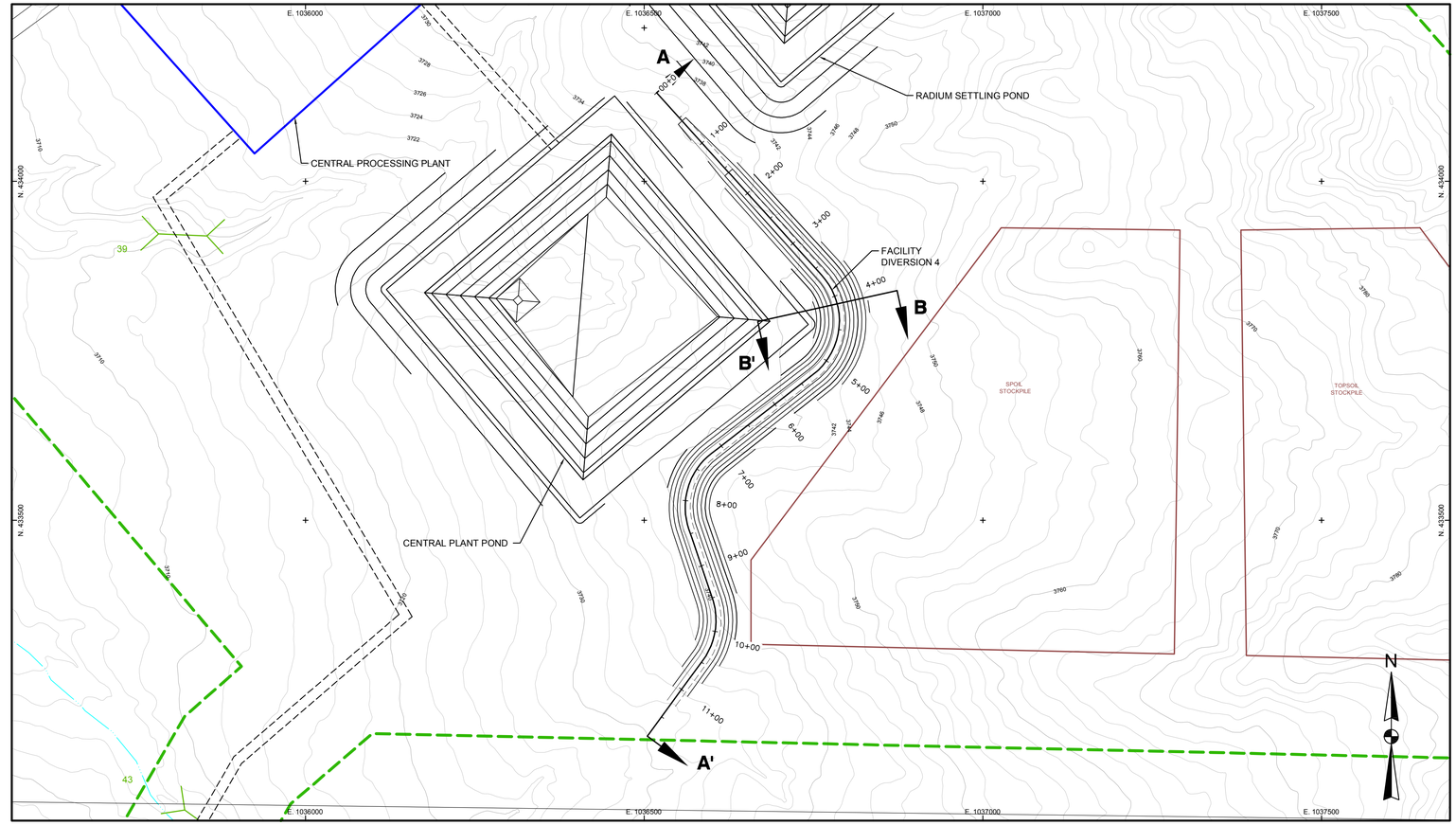


DRAINAGE AREA

SCALE: 1" = 500'

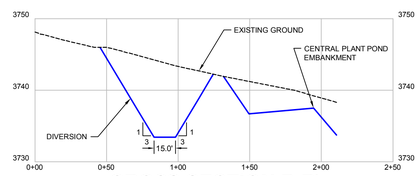
C. I. = 10'



SITE PLAN

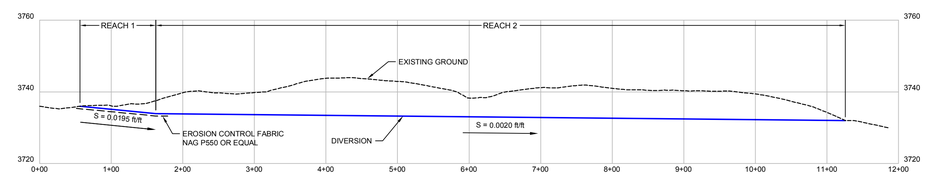
SCALE: 1" = 100'

C. I. = VARIES



CROSS SECTION B-B'

SCALE: HORZ. 1" = 50', VERT. 1" = 10'



SECTION A-A' DIVERSION PROFILE

SCALE: HORZ. 1" = 100', VERT. 1" = 20'

FACILITY DIVERSION 4 CROSS SECTIONS

$$Q = \frac{1.49}{n} A R^{2/3} S^{1/2}$$

REACH 1

6-hr, PMP

Q =	819.2 cfs	A =	71.85 ft ^{2}
n =	0.030	WP =	33.94 ft
S =	0.0195 ft/ft	R =	2.12 ft
b =	15 ft	V =	11.4 fps
		Yn =	3.00 ft

REACH 2

6-hr, PMP

Q =	819.2 cfs	A =	164.2 ft ^{2}
n =	0.030	WP =	48.58 ft
S =	0.0020 ft/ft	R =	3.38 ft
b =	15 ft	V =	4.99 fps
		Yn =	5.31 ft

LEGEND

- PROPOSED AFFECTED AREA BOUNDARY
- EXISTING ROAD
- PROPOSED SECONDARY ACCESS ROAD
- PROPOSED PRIMARY ACCESS ROAD
- MAIN PIPELINE
- MADISON WELL PIPELINE
- PROPOSED LIGHT USE ROAD
- DITCH CENTERLINE
- OVERHEAD POWER
- PROPOSED OVERHEAD POWER
- PROPOSED WELL FIELD FENCE
- EPHEMERAL STREAM CHANNEL
- PROPOSED ROAD DITCH
- CENTER PIVOT
- CATCHMENT BERM
- ORE BODY
- MADISON WELL
- PROPOSED CULVERT
- EXISTING IMPOUNDMENT TO BE MONITORED

HYDROLOGIC DESIGN STORM CALCULATIONS

SWS NO.	DRAINAGE BASIN PARAMETERS			6-YR, PMP		
	DRAINAGE AREA (sq-mi)	CURVE NO. (CN)	WATERSHED LAG TIME (Min)	6-HR, PMP PRECIP. (in)	PEAK INFLOW (cfs)	RUNOFF VOLUME (ac-ft)
FD4	0.049	80	11.42	22.1	819.2	51.6

NOTE: RUNOFF VOLUMES AND PEAK INFLOWS WERE COMPUTED BY THE HEC-HMS COMPUTER PROGRAM.

This plate is provided to fulfill the requirements of ARSD 74:29:07:09 (6).

CONSULTANT: WWC ENGINEERING

REVISIONS

#	DRAWN	CHECKED	APPROVED	DATE

REF

CHECK SCALES

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

SIGNATURE OF PREPARER

PLOT DATE 29 March 2013 | DATE 29 March 2013

DRAWN RODNEY VENTLIBNG | PDF FILE

PREPARER DALE E. BROWN | CAD FILE K:\Powertech\11270\DWGS\CCP_FAC_DIV\CPP_FAC_DIV.dwg

COORDS NAD 27, South Dakota State Plane South (feet)

POWERTECH (USA) INC.

Plate 5.3-19

CPP Facility Diversion No. 4
Land Application Option

Dewey-Burdock Project

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