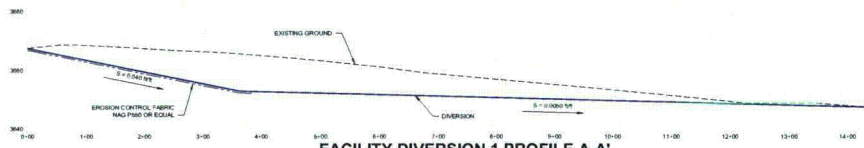


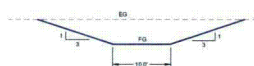
DRAINAGE AREA
SCALE: 1" = 500'
C.I. = 10'



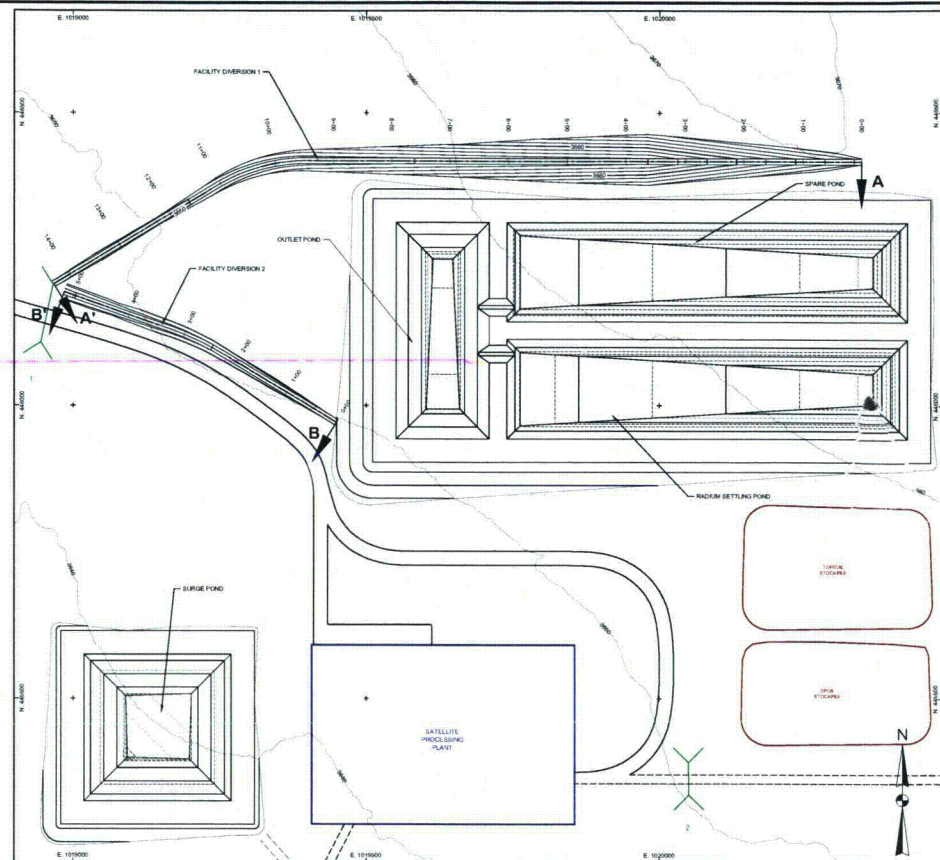
FACILITY DIVERSION 1 PROFILE A-A'
SCALE: HORIZ. 1" = 100', VERT. 1" = 20'



FACILITY DIVERSION 2 PROFILE B-B'
SCALE: HORIZ. 1" = 100', VERT. 1" = 20'



TYPICAL FACILITY DIVERSION CROSS SECTION
SCALE: 1" = 10'



SITE PLAN
SCALE: 1" = 100'
C.I. = VARIES

FACILITY DIVERSION 1 CROSS SECTION

$$Q = \frac{1.49}{n} AR^2 S^{1/2}$$

(STA. 0+00 TO 3+85)	(STA. 3+85 TO END)
Q = 184.40 cfs	Q = 184.40 cfs
A = 18.52 ft ²	A = 36.79 ft ²
n = 0.030	n = 0.030
WP = 18.38 ft	WP = 24.52 ft
S = 0.040 ft/ft	S = 0.0050 ft/ft
R = 1.01 ft	R = 1.58 ft
V = 9.96 fps	V = 4.75 fps
b = 10 ft	b = 10 ft
Y _{fs} = 1.33 ft	Y _{fs} = 2.30 ft

FACILITY DIVERSION 2 CROSS SECTION

$$Q = \frac{1.49}{n} AR^2 S^{1/2}$$

Q = 48.10 cfs	A = 12.70 ft ²
n = 0.030	WP = 16.20 ft
S = 0.0081 ft/ft	R = 0.78 ft
b = 10 ft	V = 3.79 fps
Y _{fs} = 0.88 ft	

HYDROLOGIC DESIGN STORM CALCULATIONS

FACILITY DIVERSION NO.	DRAINAGE BASIN PARAMETERS			6-HR. PMP STORM		
	DRAINAGE AREA (sq-mi)	CURVE NO. (CN)	WATERSHED LAG TIME (min)	6-HR. PMP PRECIP. (in)	PEAK INFLOW (cfs)	RUNOFF VOLUME (ac-ft)
1	0.913	84	16.95	22.1	184.4	13.8
2	0.893	84	12.75	22.1	48.1	3.2

NOTE: RUNOFF VOLUMES AND PEAK INFLOWS WERE COMPUTED BY THE HEC-HMS COMPUTER PROGRAM USING THE SCS TYPE II RAINFALL DISTRIBUTION.

- LEGEND**
- PROPOSED AFFECTED AREA BOUNDARY
 - COUNTY ROAD
 - EXISTING ROAD
 - PROPOSED PRIMARY ACCESS ROAD
 - PROPOSED SECONDARY ACCESS ROAD
 - PROPOSED LIGHT USE ROAD
 - RAILROAD
 - APPROXIMATE RAILROAD RIGHT-OF-WAY
 - EPHEMERAL STREAM CHANNEL
 - PROPOSED ROAD DITCH
 - MAIN PIPELINE
 - MADISON WELL PIPELINE
 - PLANT-TO-PLANT PIPELINE
 - PROPOSED OVERHEAD POWER
 - PROPOSED WELL FIELD FENCE
 - PROPOSED CULVERT
 - ORE BODY
 - STAGING AREA

	REVISIONS # DRAWN CHECKED APPROVED DATE				<p>Powertech (USA) Inc. Plate 5.3-14 Satellite Facility Diversions Deep Disposal Well Option</p>
	SIGNATURE OF PREPARED CHECK SCALES DATE: 3 December 2012 DRAW: 3 December 2012 DRAWN: DAVE C. JOHNSON PLOT FILE: DIV_DEV_FACILITY_DEV.PDF PREPARED: CALLEE BROWN PARTNER: c.johnson@wwcengineering.com FACILITY.Dwg				