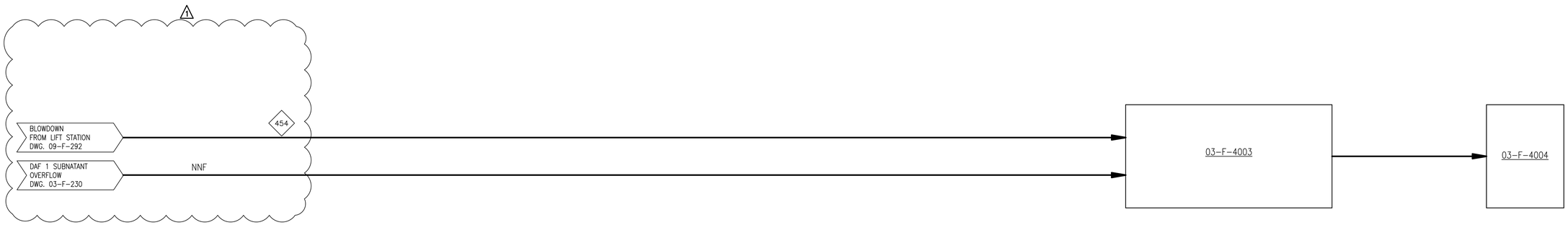
Plot Date: 9/28/11 By: Lilly, Adam File Location: K:\139000\139197 - Confidential - Sapphire IABR Design\CADD\2-SHEETS\P-PROCESS 03-F-250.dwg 9/28/11 11:01 AM



NOTES

1. STREAM DATA IS FOR PEAK FLOW.

STREAM NO.		454
DESCRIPTION		BLOWDOWN
FLOW	LB/HR	149,940
FLOW	GPM	300
TEMPERATURE	°F	68
PRESSURE	PSIA	12.7
VAPOR FRACTION		0
% SOLIDS IN AQ SOLNS		22
WATER	LB/HR	117,587
ALGAE OIL	LB/HR	0
ALGAE BIOMASS	LB/HR	0
ASH	LB/HR	32,353
CO2	LB/HR	0
UREA SOLUTION	LB/HR	0
PHOSPHORIC ACID	LB/HR	0
SULFURIC ACID	LB/HR	0
TOLUENE	LB/HR	0
METHANE	LB/HR	0
PROPANE	LB/HR	0
OXYGEN	LB/HR	0
NITROGEN	LB/HR	0
FLOCCULANT	LB/HR	0
COAGULANT	LB/HR	0

(XXX) DENOTES CHANGE IN STREAM TEMPERATURE ONLY. NO COMPOSITION CHANGE.

(XXX) DENOTES CHANGE IN STREAM PRESSURE ONLY. NO COMPOSITION CHANGE.

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FOR REVIEW ONLY

09/28/2011
MATTHEW B. GERHARDT
NEW MEXICO
19876
REGISTERED PROFESSIONAL ENGINEER

Sapphire Energy

Brown AND Caldwell
201 NORTH CIVIC DRIVE, SUITE 115
WALNUT CREEK, CA 94596

Scale: NO SCALE
PMgr: B. ZINN Drawn: CADD STAFF Engr: J. ARMSTRONG
Appr: M. GERHARDT Check: M. GERHARDT Check: L. SLEZAK

Rev.	Date	By	Description
1	8-19-11	MBG	ADDED CENTRIFUGE BLOWDOWN

SAPPHIRE ENERGY
SAN DIEGO
CALIFORNIA

IABR Columbus, NM.

PROCESS FLOW DIAGRAMS

EVAPORATION PONDS

Project No.: 139197 Drawing: 03-F-250 Rev: 1