Applicant: Jim Walter Resources, Inc.
Mine Name: North River No. 1 Underground Mine
Permit Number: P- 3222 / Revision R-38

Part III - Operation Plan

A. General Operation Information

1. Describe the type and method of coal mining procedures and major equipment to be used. (780.11)

The underground mining operation for the North River No.1 Mine has been halted and the mine shaft reclaimed for Safety concerns. However the Prep. Plant and support facilities will remain in tact in order for coal to be washed at this plant and loaded on rail cars at the rail siding contained within the Permit Boundary if upper management decides to do so in the future.

2. Describe the sequence and timing of increments to be mined (as shown on permit map) over the total life of the permit. (780.11)

The timing increments are as follows:

INCREMENT NO.	ACRES	DATES	
		FROM	TO
1	764	Issuance of R-38	Life of permit
2	26	Phase 3 Release Issued	
3	39	Phase 3 Release Issued	
4	115	Phase 3 Release Issued	
5	11	Issuance of R-38	Life of permit
6	193	Issuance of R-38	Life of permit
5	57	Issuance of R-38	Life of permit
6	26	Issuance of R-38	Life of permit

*Month depends on date permit is issued.

The sequence of mining operations will be generally as follows:

1) Construction of Sediment Control Structures
2) Site Preparation
3) Construction of Slurry and Pump Lines.
4) Site Reclamation
5) Revegetation

3. Attach a narrative explaining the construction modification, use, maintenance, and removal of the following facilities: (780.11)

(a) Coal removal, handling, storage, cleaning and transportation structures and facilities;
(b) Spoil, coal processing waste and non-coal waste removal, handling, storage, transportation and disposal structures and facilities;
(c) Mine facilities; and
(d) Water pollution control facilities.

See Attachment III-A.-3

4. Describe the means to be used to maximize the use and conservation coal reserves in the permit area. (780.18, 816.59)
Some of the measures are:

A) Mining the deepest seam that is economically feasible to mine.
B) Rehandling overburden in order to maximize coal recovery that would normally be lost in the toe of the spoil.
C) Processing and blending coal that in its "raw" condition would not have a market.

5. Describe measures to be taken to ensure that all debris, acid-forming and toxic-forming materials and materials constituting a fire hazard are disposed of in accordance with 816.89 and 816.103; include contingency plans to prevent sustained combustion of such material. (780.18)

Should acid or toxic forming material be encountered, the material will either be covered with a minimum of four (4) feet of non-toxic and noncombustible material or treated to neutralize toxicity, prevent water pollution, prevent sustained combustion, and minimize adverse effects on plant growth and land uses. Additionally, no acid or toxic forming material will be buried or stored in the proximity of a drainage course. All acid or toxic forming material will be selectively hauled or conveyed, and compacted in the coarse refuse disposal area.

Attachment III-A-3

3.(b)

Coarse Refuse Disposal Area No. 1 will be used to store coarse coal waste produced from the washing operations at this facility and will be inspected and maintained until reclamation of the area is complete. Waste bank construction and any subsequent modifications that may be required will be conducted under the general supervision of a qualified registered professional engineer and will be done in accordance with the approved design plans. The waste bank will be constructed of coarse refuse produced at this facility. See Attachment III-A-3(b) for specifications.

Routine maintenance of Coarse Refuse Disposal Area No. 1 will consist of repair and stabilization of any rills and gullies which may develop and repairs to erosion protection structures as required. The waste bank will be inspected by a registered professional engineer or other qualified professional specialist under the direct supervision of the qualified professional engineer. Inspections will be made at least quarterly and during times of removal of organic material and topsoil, installation of diversion ditches, installation of underdrains, placement and compaction of refuse material, and revegetation of the fill. Certification inspection reports will be filed with the Regulatory Authority stating that proper construction and maintenance are occurring in accordance with approved design plans. Photos will be taken of underdrains, etc. that will covered and unavailable for inspection upon coving by fill material. Inspection reports will be retained at the facility office.

Coarse Refuse Disposal Area No. 1 is an existing structure. Modification plans for the Coarse Refuse Area consist of Site Specific Slope Bench Designs in addition to the Typical Designs previously approved. See Attachment III-B-2-(d). Upon written approval of the Modification plans the waste bank will be constructed and certified to the Regulatory Authority as outlined above. See Attachment III-A-3(b) for specifications.

Upon completion of the filling of Coarse Refuse Disposal Area No. 1 , it will be reclaimed by the following procedure: The waste bank area will be graded using mobile equipment to the configuration approved in the design plans. The waste bank will be covered with two(2)feet of non-toxic, non-acid forming, and non-combustible material. See Revision R-19 for approval of two(2) feet of cover material. All disturbed areas will be vegetated with an appropriate combination of grasses and legumes as stated in the reclamation plan, fertilized, and mulched to ensure a permanent diverse vegetative cover. The cover material will be sampled and analyzed to determine the correct amount of soil amendments to be added to the cover material. Soil amendments, including lime and fertilizer, will be added and disced into the cover material in rates as recommended by laboratory analysis performed upon the cover material. These soil amendments will ensure a diverse effective vegetative growth upon the material.

Coal to be washed (and the fine refuse to be injected) originates

from the Pratt Coal Seam. This coal is washed at the North River Preparation Plant which typically runs 24 hours per day, six days per week. The North River Preparation Plant is a 'water-only' processing facility. It has a capacity of 1100 raw tons of coal per hour. The plant is fed 3"X0 raw coal via coal crushers and conveyors. The plant is set to produce a clean coal product which has an ash content of approximately 13 percent (dry basis). Moisture content typically averages approximately 7.50 percent on the clean coal product. The plant utilizes Baum Jigs, Super Scalpers, Coal Spirals, and Froth Flotation to clean the raw coal product. Sizing of the coal in the preparation plant is accomplished by vibrating screens, classifying cyclones, and vor-sieves. Equipment utilized to dewater the coal consists of screens, thickening cyclones, centrifuges, vacuum disc filters, and a static thickener. Baum Jigs, Super Scalpers, and Coal Spirals are 'water-only' devises that separate coal from rock based on their differences in specific gravity. Froth flotation separates fine coal from fine clay based on the surface chemistry of the different particle types. Transport of coal, non-coal waste, and the wash water to and from the preparation plant includes mobile equipment, pumps, pump lines, and belt conveyors. The coal slurry or reject from the preparation plant (if not stored in on-site slurry impoundments) is injected into an approved injection zone, which in this case are abandoned and sealed regions of the underground works of the North River Mine, via black, polyethylene pipes and thru approved, cased drill holes which connect the underground workings to the surface. The slurry or reject contain solids, and these solids will settle to the bottom of the injection zone after injection takes place. Mine seals on the boundary of the injection zone will allow the liquid from the injectant to drain to an underground sump which is utilized to collect water from the underground mine. The liquid from the injection zone is then either 1) pumped from the sump to the surface and into an existing treatment facility (sediment basin) where the water from the injection zone will be treated and discharged, or 2) pumped back to the preparation plant where it will be re-used for coal washing. Some water from the injection zone is collected and pumped to the working face where it is utilized in connection with the longwall miner. All material to be injected into the North River Mine will be through surface lines located on property either owned or controlled by Chevron Mining, Inc.. Pumping rates from the North River sump pump will be variable based upon the total of: 1) infiltration into the North River Mine, and 2) the rate of liquid discharge from the sealed injection zone. Pumping rates into the proposed injection area will also be based upon need. No significant change in subsidence is anticipated as a result of underground injection. Due to the fact that the North River Mine utilizes both 'room and pillar' and 'longwall' mining within the injection zone, and there are substantial sandstone units overlying this area as shown on the attached Fence Diagrams, subsidence at this site should be minimal. This means that the entire requested injection zone is interconnected with large voids created by the recovery of the target coal seam. These voids create an environment where gravity (as opposed to capillary forces) is the dominant force affecting groundwater levels. As a result, no significant gradient exists within this interval and the gradient of the groundwater in this instance does not drive groundwater movement. Rather, it is the water pressure which exists on the face

of the unrecovered coal (on the mine boundary) that drives infiltration of standing water into the in-place coal. As the depth of groundwater increases at the coal face, so does the pressure (or head) at that location, therefore as the elevation of the coal decreases, the water pressure at the coal face (for any given water level) increases. It is therefore logical to assume that, in the absence of substantial fault or fracture zones (which are not known to exist in this area), discharge from the mine under most circumstances is thru in-place coal. Even though the coal has a relatively low hydraulic conductivity, it is historically more permeable than shale or fireclay which both over and underlays most areas within the requested injection zone. Where the pressure head is higher on the coal face within the North River Mine (ie., areas of lower elevation), infiltration of in-situ groundwater into the in-place coal is higher and where the pressure head is lower (areas of higher elevation), the resulting infiltration is lower. It is therefore reasonable to assume that migration of in-situ groundwater from the North River Mine is at the coal face around the entire wetted perimeter of the mine, however, the majority of migration from the mine is down-dip (or toward the southeast) due to the increased pressure head existing on this face. Infiltration into the mine from overlying aquifers is probably very slowly over a large surface area due to decreased permeability perpendicular to the overburdens' bedding planes. Infiltration into the North River Mine is also through up-dip coal and is probably precipitation dependent. When infiltration into this mine exceeds migration of groundwater out of the mine, the groundwater level within abandoned and sealed sections the North River Mine rise and when infiltration into this mine is less than the migration of groundwater out of the mine, the groundwater level within abandoned and sealed sections the North River Mine falls. Gross movement of groundwater through the injection zone is toward the down-dip direction which, as stated above, is regionally towards the southwest but locally trends towards the south and southeast. It should be noted that all areas of in-place Pratt Coal which lie down-dip of the injection zone are at least 200 below sea level, therefore after injection takes place, the injectant will have virtually no chance of reaching the surface. See Attachments III-A-3(b) for specifications. New well site areas were previously approved by ADEM UIC Permit and MSHA letter.

c) See original Permit and Subsequent Revisions.

d) See original Permit and Subsequent Revisions.

Applicant: Jim Walter Resources, Inc.
Mine Name: North River No. 1 Underground Mine
Permit Number: P- 3222 / Revision R-38

Attachment III-A-3(b)

COARSE COAL PROCESSING WASTE EMBANKMENT REQUIREMENTS

All coarse refuse will be placed in Coarse Refuse Disposal Area No. 1 including the N.E. Expansion area. (See Permit Map.) The disposal plans will be designed using current prudent engineering practices and Regulatory Authority design criteria and certified by a qualified registered professional engineer.

All surface drainage will be routed around the outslope of the waste bank by using diversion ditches. The diversion ditches will be designed to pass a peak flow from a 100 yr. - 6 hr. precipitation event.

All vegetation and any organic material will be removed prior the construction of the embankment. Any topsoil removed will be segregated and stored on-site for future reclamation needs.

All refuse material will be transported and placed in a controlled manner in the waste bank. The liming rate required to neutralize the material will be calculated and submitted to the regulatory authority for approval prior to adjusting the rate.

Slopes of the waste bank will be maintained at a minimum slope to be specified within the detailed design plans. The slopes of the waste bank will be designed to exceed a 1.5 minimum long term static safety factor.

Sufficient site and laboratory investigations will be performed on the foundation area and the fill material to be utilized in the design of the fill. If a potential hazard is revealed, the Regulatory Authority will be informed and necessary safety measures will be implemented.

The waste bank will be inspected by a registered professional engineer or other qualified professional specialist under the direct supervision of the qualified professional engineer. Inspections will be made at least quarterly and during times of removal of organic material and topsoil, installation of diversion ditches, installation of underdrains, placement and compaction of refuse material, and revegetation of the fill. Photographs of the underdrain will be taken during and after their construction but prior to their cover. Certification inspection reports will be filed with the Regulatory Authority stating that proper construction and maintenance are occurring in accordance with approved design plans. Inspection reports will be retained at the facility office.

Upon completion of operations, the waste bank area will be graded using mobile equipment to the configuration approved in the design plans. The waste bank will be covered with a minimum of two (2) feet of the best available non-toxic, non-acid forming, and non-combustible material. All disturbed areas will be vegetated with an appropriate combination of grasses and legumes as stated in the

reclamation plan, fertilized, and mulched to ensure a permanent diverse vegetative cover. The cover material will be sampled and analyzed to determine the correct amount of soil amendments to be added to the cover material. Soil amendments, including lime and fertilizer, will be added and disced into the cover material in rates as recommended by laboratory analysis performed upon the cover material. These soil amendments will ensure a diverse effective vegetative growth upon the material.

b) If an existing structure requires modification or reconstruction to meet the performance standards, attach a compliance plan which includes design specifications, construction schedule, monitoring procedures, and evidence that the risk of harm to the environment or public health or safety is not significant during modification or reconstruction. None

2. Ponds, impoundments, banks, dams and embankments. (780.25)

(a) Submit a general plan which complies with Section 780.25(a)(1) for each proposed sedimentation pond, water impoundment, and coal processing waste bank, dam or embankment to be located within the proposed permit area.
See Attachment III-B.-2(a)

(b) Submit detailed design plans which comply with Sections 780.25(a)(2 and 3) and 816.46 for each sedimentation pond to be constructed on the increment you currently propose to mine. If the sediment pond is to remain as a permanent water impoundment, design plans shall also comply with Section 816.49.
See Previously Approved Design Plans in Previous Revisions

(c) Submit detailed design plans which comply with Sections 780.25(a)(2 and 3) and 816.49 for each temporary or permanent water impoundment to be constructed on the increment you currently propose to mine. None

(d) Submit detailed design plans which comply with Sections 780.25(a) (2 and 3) and 816.81-816.85 for each coal processing waste bank to be constructed on the increment you currently propose to mine.
See Attachment III-B.-2(d),
Coarse Refuse Disposal Area No. 1 Modification. See MSHA Approval included in the Detailed Design Plans.

(e) Submit detailed design plans which comply with Sections 780.25(a)(2 and 3) and 816.91-816.93 for each coal processing waste dam and embankment to be constructed on the increment which you currently propose to mine.
None

3. Diversions. (780.29,816.43, 816.44)

Are diversions of overland flow or stream channel diversions proposed?
(XXX) Yes ( ) No

If yes, complete the following:

(a) Is the diversion to be permanent? ( ) Yes (XXX) No

Applicant: Jim Walter Resources, Inc.
Mine Name: North River No. 1 Underground Mine
Permit Number: P- 3222 / Revision R-38

CERTIFICATION STATEMENT:

I hereby certify that Attachment III-B-2.A prepared for Jim Walter Resources, Inc., North River No. 1 Underground Mine, P-3222, Revision R-38, are in accordance with the Regulations of the Alabama Surface Mining Commission as adopted by Act 81-435 of December 18, 1981 and amended to date, and are true and correct to the best of my knowledge and belief.

Leslie G. Stephens, P.E./P.L.S.
AL Registration #14117-E

6/04/2014
Date

Applicant: Jim Walter Resources, Inc.
Mine Name: North River No. 1 Underground Mine
Permit Number: P- 3222 / Revision R-38

Attachment III-B-2(a)

ADDENDUM TO THE GENERAL PLAN

The addendum to the general plan consists of changing the classification of Basins B-1, B-3, 010, 010A, 012, 015, 016, 018, 018A, 022, 023, and 024 from temporary to permanent water impoundments, fish and wildlife habitat. Data to qualify the impoundments as permanent water impoundments will be submitted to the Regulatory Authority prior to Phase II Bond Release. See attached data and Permit Map for basin location and hydrologic information. Also to Modify the Coarse Refuse Area No. 1 Detailed Design Plans

Geologic investigations of the area indicate layers of sandstone, siltstone, shale and minor amounts of bituminous coal and underclay. The strata in the area is characterized by small scale normal faulting and gentle open folding.

All surface drainage from the proposed mining area flows into unnamed tributaries of Cedar Creek, tributaries of, and/or directly into North River.

All diversions are to be temporary and will be re-graded and revegetated. (See diversion ditch criteria).

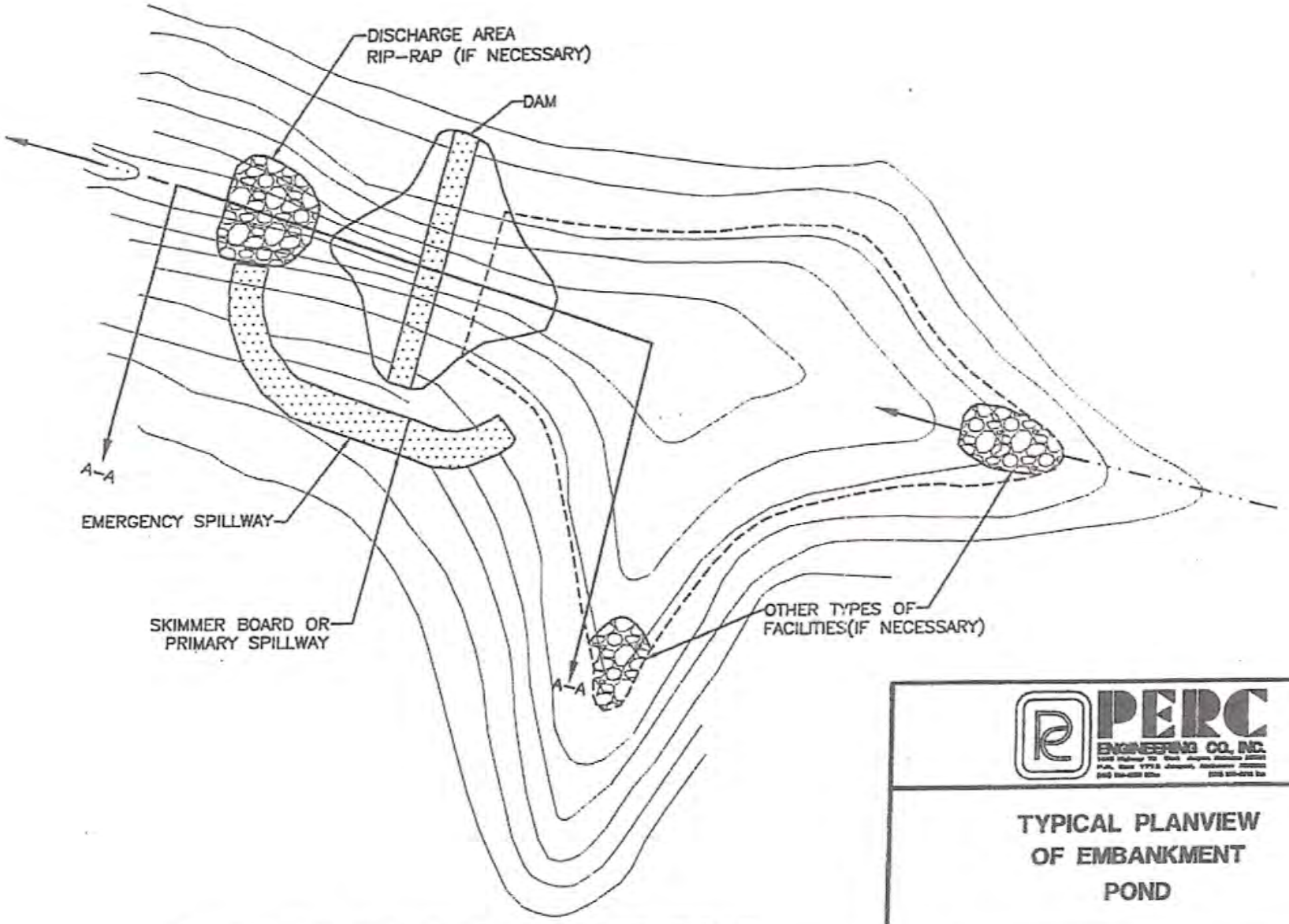
Applicant: Jim Walter Resources, Inc.
Mine Name: North River No. 1 Underground Mine
Permit Number: P- 3222 / Revision R-38

Attachment III-B-2(a)

GENERAL SEDIMENT BASIN DATA

Basin No.	Location	Drainage Area
018E Modified	NE/NE, Sec. 1, T. 17 S., R. 11 W.; SW/SW, S. 31, T. 16 S, R. 10 W.; NW/NW, Sec. 6, T. 17 S., R. 10 W	305.80 Acres
018AP	SW/SW & SE/SW, S.31, T.16 S., R. 10 W.	91.00 Acres
024E	NW/NW, Sec. 32, T. 16 S., R. 10 W.	67.60 Acres
015E Phase II	SE/SW & SW/SE Sec. 30; NE/NW & NW/NE Sec. 31; T 16 S., R. 10 W.	56.00 Acres
016E Phase II	SW/SE, Sec. 30, S., R. 10 W.	138.55 Acres
B-1	NE/SW, Sec. 32, T. 16 S., R. 10 W.	159.00 Acres
B-3	SW/SW & SE/SW, Sec. 32, T. 16 S., R. 10 W.	28.20 Acres
010E	SW/SW, Sec. 32, T. 16 S., R. 10 W.	52.70 Acres
010AE	SW/SW, Sec. 32, T. 16 S., R. 10 W.	33.70 Acres
012E	SW/SW, Sec. 32, T. 16 S., R. 10 W.	2.60 Acres
022E	SW/SW, Sec. 32, T. 16 S., R. 10 W.	23.00 Acres
023E	SW/SW, Sec. 32, T. 16 S., R. 10 W.	16.00 Acres

All above located in Fayette and Tuscaloosa County, Alabama, as found on the Berry S.E. Quadrangle.



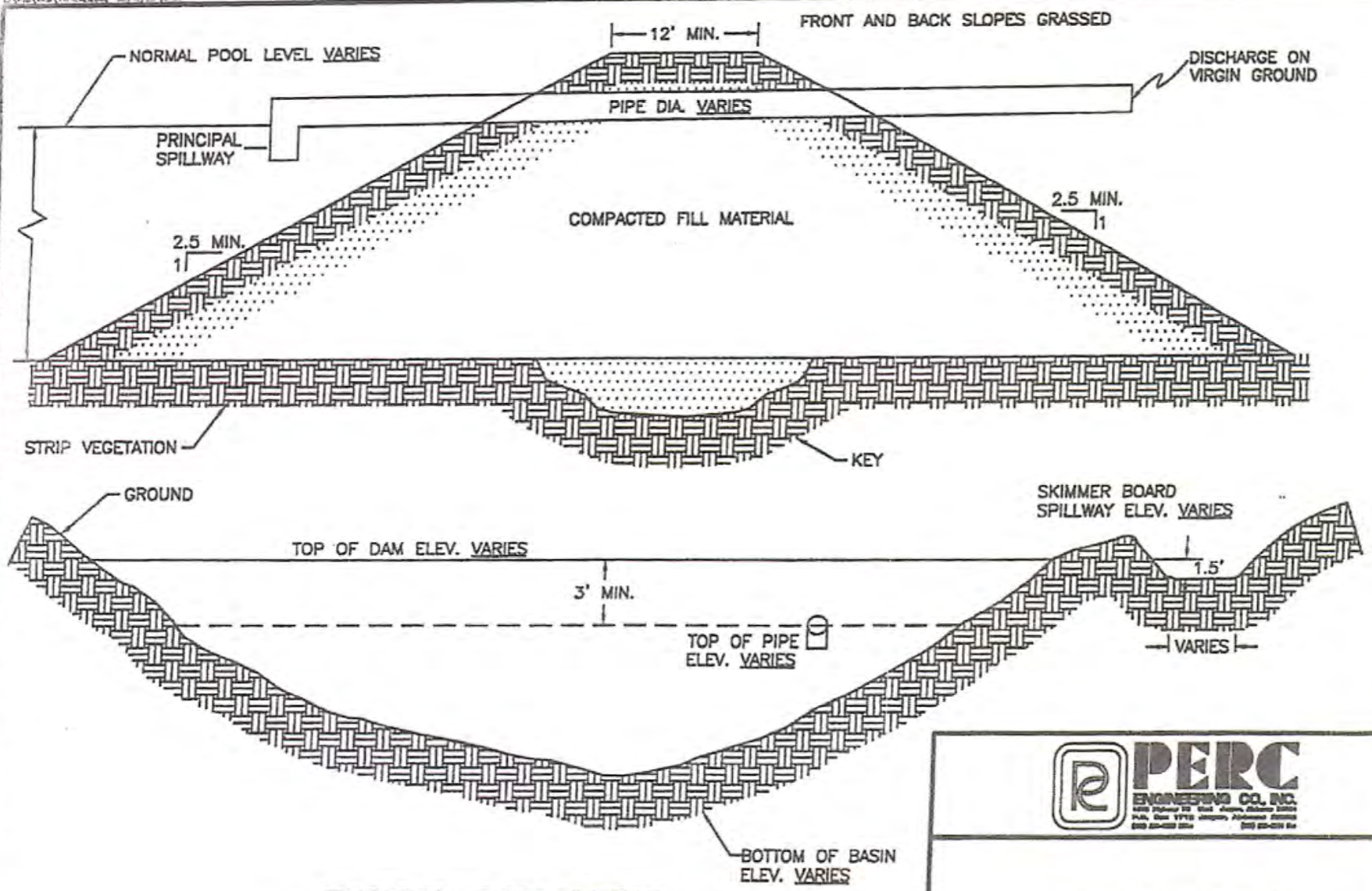
PLANVIEW OF EMBANKMENT POND

ATTACHMENT III-B-2-A

PERC ENGINEERING CO. INC.

TYPICAL PLANVIEW OF EMBANKMENT POND

DRAWN BY: P.T.O. DWG. NAME: TYPICALS	DATE: 8-10-05
APPROVED BY: W.K.M.	SCALE: NONE



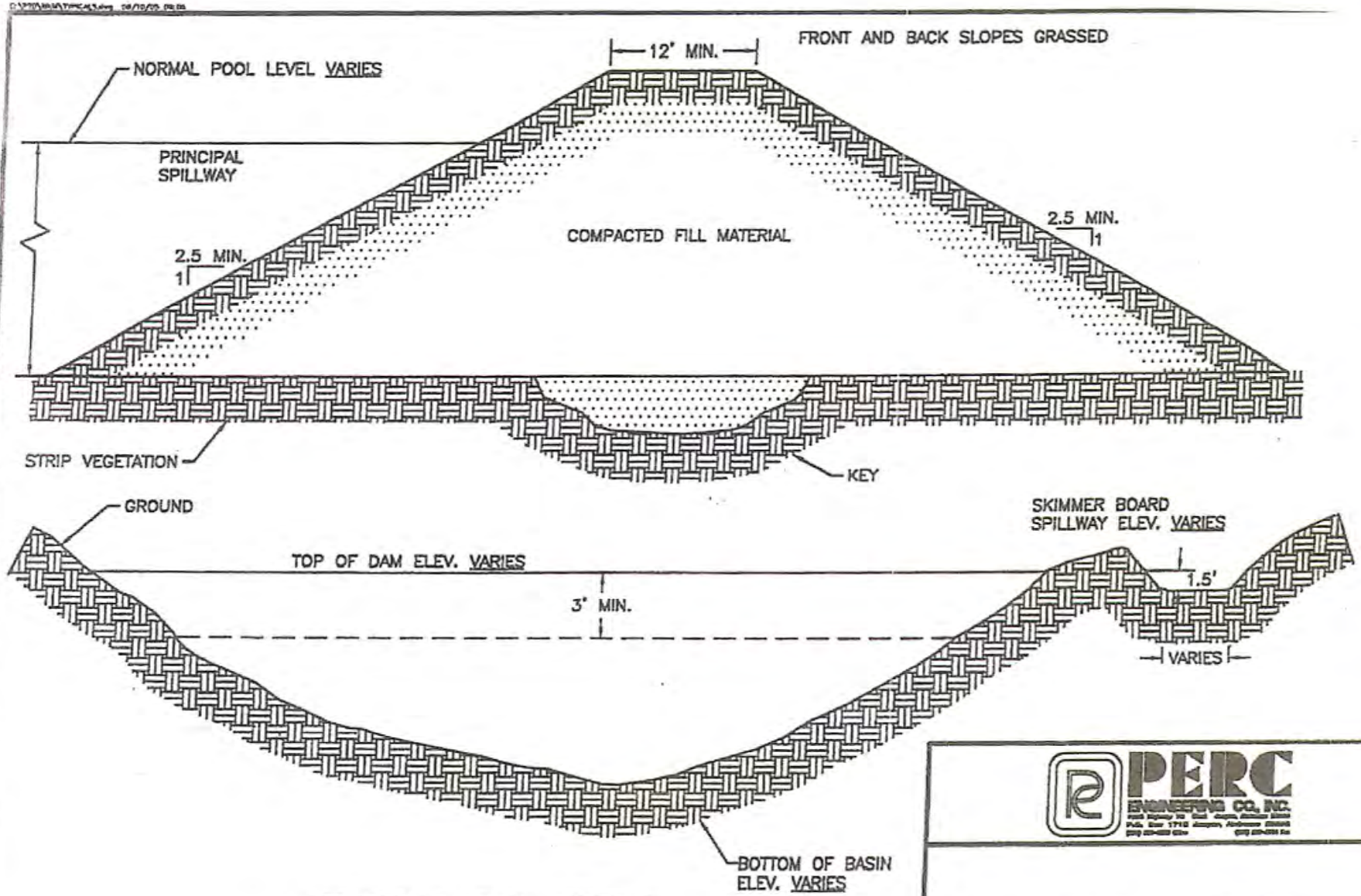
TYPICAL DAM DETAIL
NO SCALE

PERC ENGINEERING CO. INC.

TYPICAL DAM DETAIL

DRAWN BY: P.T.O. DWG. NAME: TYPICALS	DATE: 8-10-05
APPROVED BY: W.K.M.	SCALE: NONE

ATTACHMENT III-B-2-A



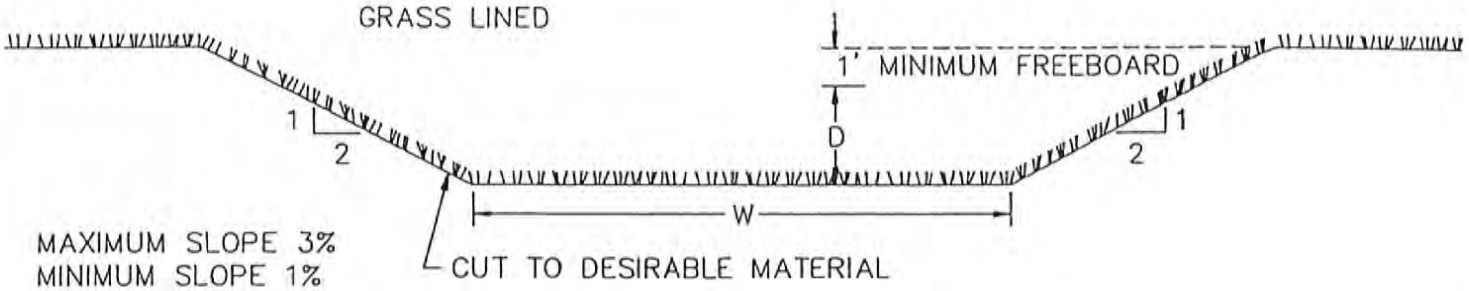
TYPICAL DAM DETAIL
NO SCALE

ATTACHMENT III-B-2-A

PERC ENGINEERING CO., INC.

TYPICAL DAM DETAIL

DRAWN BY: P.T.O. DWG. NAME: TYPICALS	DATE: 8-10-05
APPROVED BY: W.K.M.	SCALE: NONE



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

N(loose stone or grass lined) = 0.035
A = area
R = area/wetted perimeter
S = slope

* Grass lining: fescue, bermuda, rye grass

DIVERSION CHANNEL DEPTH (D) FOR WIDTH (W) 8.0 Ft.	
PEAK FLOW Q (CFS)	DEPTH D (Ft.)
0–15	0.5
15–50	1.0
50–100	1.5
100–180	2.0
180–270	2.5

DIVERSION CHANNEL DEPTH (D) FOR WIDTH (W) 10.0 Ft.	
PEAK FLOW Q (CFS)	DEPTH D (Ft.)
0–15	0.5
15–60	1.0
60–120	1.5
120–210	2.0
210–320	2.5

DIVERSION CHANNEL DEPTH (D) FOR WIDTH (W) 12.0 Ft.	
PEAK FLOW Q (CFS)	DEPTH D (Ft.)
0–20	0.5
20–70	1.0
70–150	1.5
150–250	2.0
250–383	2.5

DIVERSION CHANNEL DEPTH (D) FOR WIDTH (W) 15.0 Ft.	
PEAK FLOW Q (CFS)	DEPTH D (Ft.)
0–25	0.5
25–90	1.0
90–180	1.5
180–300	2.0
300–450	2.5

PERC
ENGINEERING CO., INC.

PERMANENT DIVERSION CHANNEL FOR BASIN DISPOSAL

DRAWN BY:	DATE:
APPROVED BY:	SCALE: NONE

ATTACHMENT III–B–2–A

Applicant: Jim Walter Resources, Inc.
Mine Name: North River No. 1 Underground Mine
Permit Number: P- 3222 / Revision R-38

Attachment III-B-2(a)

POND CONSTRUCTION CRITERIA

The embankment for sediment basins (temporary and permanent) shall be designed and built using the following as minimum criteria:

1. The top of the dam shall be no less than 12 feet wide.

2. See design sheet for maximum and minimum embankment slopes.

3. During the construction of all embankments, alternate sediment control such as silt fencing, haybale dams, or vegetative barrier or some combination thereof will be place downstream of the disturbed area to control runoff.

4. The foundation and abutments for the impounding structure shall be designed to be stable under all conditions of construction and operation of the impoundments, with a minimum static safety factor of 1.5 for the normal pool with steady seepage saturation conditions, and a seismic safety factor of at least 1.20.

5. The dam shall be constructed with a cutoff trench based upon prudent engineering practices for the site. The cutoff shall be located on the dam centerline and be of sufficient depth to extend into a relatively impervious material from which the core of the dam shall also be constructed.

6. The embankment foundation area shall be cleared of all organic matter, all surfaces sloped to no steeper than 1v:1h, and the entire foundation surface scarified.

7. The entire embankment and cutoff trench shall be compacted to 95 percent density, based on standard proctor as outlined in ASTM.

8. The material placed in the embankment shall be free of sod, roots, stones over 6 inches in diameter, and other objectionable materials. The fill material shall be placed and spread over the entire fill area, starting at the lowest point of the foundation, in layers not to exceed 12 inches in thickness. Construction of the fill shall be undertaken only at such times that the moisture content of the fill material will permit satisfactory compaction in accordance with paragraph 5.

9. The pool area of the basin will be cleared of timber and large undergrowth.

10. The primary decant system when consisting of a pipe shall be installed according to Class C pipe installation for

embankment bedding.

11. The primary decant system shall be equipped with a device, or constructed, such as to insure that subsurface withdrawal is accomplished to prevent discharge of floating solids. If a channel is used as the primary decant a skimmer shall be installed to prevent floating solids from discharging.

12. A splash pad or riprap may be required under the discharge of the primary decant system where necessary to insure that the discharge does not erode the embankment.

13. The combination primary and secondary decant system shall be designed to safely carry the expected peak flow from a 25 year-6 hour storm. The entire emergency overflow spillway channel will be a stabilized channel and will be stabilized upon completion of construction as specified within the detailed design plans using prudent engineering measures. These measures may consist of lining the spillway with concrete or a durable rock riprap, or the spillway being constructed in consolidated non-erodible material and planted with a mixture or both annual and perennial grasses, or a combination of any or all of the above.

14. Sediment basins using a single spillway system shall be an open channel of non-erodible construction consisting of concrete, durable rock riprap or its being constructed in consolidated non-erodible material as specified in the detailed design plans.

15. The settled embankment for temporary impoundments shall be a minimum of 1.0 foot above the maximum water elevation for the runoff from a 25 year - 6 hour, or a 10 year - 24 hour precipitation event (whichever has the greatest runoff). The settled embankment for permanent impoundments shall be a minimum of 1.0 foot above the maximum water elevation for the runoff from a 25 year - 6 hour, or a 10 year - 24 hour precipitation event (whichever has the greatest runoff).

16. If basins are built in series, then the combined decant system for each shall be designed to accommodate the entire contributing drainage area.

17. The dam and all disturbed areas shall be seeded with annual and perennial grasses, fertilized and mulched in order to insure erosion is minimized. Hay bales or riprap may be placed at the toe of the dam upon completion of construction.

18. The constructed height of the dam shall be increased a minimum of 5 percent over the design height to allow for settlement over the life of the embankment.

19. Final graded slopes of the entire permanent water impoundment

area shall not exceed 2.5H-1.0V to provide for adequate safety and access for proposed water users.

20. Prior to Phase II bond release, additional data concerning water quality, water quantity, depth, size, configuration, postmining land use, etc., for each proposed permanent water impoundment, shall be submitted to the Regulatory Authority for permanent water impoundment approval.

21. All sediment basins will be inspected for stability, erosion, etc. two (2) times a month until removal of the structure or release of the reclamation bond.

22. The embankment and spillway will be maintained by repairing any damage such as erosion, slope failure or spillway damage until removal of the structure or release of the performance bond.

23. All ponds shall be examined quarterly for structural weakness, instability, erosion, or other hazardous conditions and maintenance performed as necessary. Formal inspections shall be made on an annual basis, including any reports or modifications, in accordance with 880-X-10C-.20[1(j)] of the Alabama Surface Mining Commission Regulations.

24. Sediment will be removed from each pond when the accumulated sediment reaches the sediment storage volume as shown on the detailed design sheet.

25. Upon completion of mining, successful reclamation and effluent standards being met, each sediment basin not remaining as a permanent water impoundment will be dewatered in an environmentally safe manner (such as siphoning, pumping, etc.) and reclaimed to approximate original contours by the following procedure: A permanent diversion channel (designed for a 10 year - 24 hour precipitation event) shall be cut along the outer edge of the basin to re-route drainage around the basin and back through the stabilized spillway to allow reclamation of the sediment basin. The diversion channel shall be designed and grassed as per enclosed information. (See permanent diversion for basin disposal).Upon completion of the diversion channel the back slope of the dam shall be graded to a minimum 3H to 1V slope. The dewatered sediment basin area shall be seeded with some combination of the following: Fescue, bermuda, rye grass, canary grass and willows. After seeding the area shall be mulched. Any additional sediment or embankment material not used to meet original contour, if non-toxic, shall be spread in thin layers within the permit area and vegetated as stated in the approved reclamation plan. All toxic material encountered in the basin disposal shall be buried and covered with 4 feet of non-toxic material and vegetated as stated in the approved reclamation

plan.

26. A qualified registered professional engineer or other qualified professional specialist, under the direction of the professional engineer shall conduct regular inspections during construction and upon completion shall inspect each basin for certification purposes.

27. Point source discharge embankments shall be constructed and abutments keyed into desirable material if at all possible. In the event that undesirable material is encountered, addition design and construction criteria shall be submitted prior to certification.

Applicant: Jim Walter Resources, Inc.
Mine Name: North River No. 1 Underground Mine
Permit Number: P- 3222 / Revision R-38

Attachment III-B.-2(a)

COARSE COAL PROCESSING WASTE EMBANKMENT REQUIREMENTS

All coarse refuse will be placed in Coarse Refuse Disposal Area No. 1 and NE Expansion. (See Permit Map.) The disposal plans will be designed using current prudent engineering practices and Regulatory Authority design criteria and certified by a qualified registered professional engineer.

All surface drainage will be routed around the outslope of the waste bank by using diversion ditches. The diversion ditches will be designed to pass a peak flow from a 100 yr. - 6 hr. precipitation event.

All vegetation and any organic material will be removed prior the construction of the embankment. Any topsoil removed will be segregated and stored on-site for future reclamation needs.

All refuse material will be transported and placed in a controlled manner in the waste bank. The liming rate required to neutralize the material will be calculated and submitted to the regulatory authority for approval prior to adjusting the rate.

Slopes of the waste bank will be maintained at a minimum slope to be specified within the detailed design plans. The slopes of the waste bank will be designed to exceed a 1.5 minimum long term static safety factor.

Sufficient site and laboratory investigations will be performed on the foundation area and the fill material to be utilized in the design of the fill. If a potential hazard is revealed, the Regulatory Authority will be informed and necessary safety measures will be implemented.

The waste bank will be inspected by a registered professional engineer or other qualified professional specialist under the direct supervision of the qualified professional engineer. Inspections will be made at least quarterly and during times of removal of organic material and topsoil, installation of diversion ditches, installation of underdrains, placement and compaction of refuse material, and revegetation of the fill. Photographs of the underdrain will be taken during and after their construction but prior to their cover. Certification inspection reports will be filed with the Regulatory Authority stating that proper construction and maintenance are occurring in accordance with approved design plans. Inspection reports will be retained at the facility office.

Upon completion of operations, the waste bank area will be graded using mobile equipment to the configuration approved in the design plans. The waste bank will be covered with a minimum of 2 feet of the best available non-toxic, non-acid forming, and non-combustible material. All disturbed areas will be vegetated with an

appropriate combination of grasses and legumes as stated in the reclamation plan, fertilized, and mulched to ensure a permanent diverse vegetative cover. The cover material will be sampled and analyzed to determine the correct amount of soil amendments to be added to the cover material. Soil amendments, including lime and fertilizer, will be added and disced into the cover material in rates as recommended by laboratory analysis performed upon the cover material. These soil amendments will ensure a diverse effective vegetative growth upon the material.

Applicant: Jim Walter Resources, Inc.
Mine Name: North River No. 1 Underground Mine
Permit Number: P- 3222 / Revision R-38

Attachment III-B.-2(a)

Silt Fencing Design and Construction Specifications

1. Fence height - 3' including 6" trench flap.

2. Silt fencing will be secured into place by prefabricated wood or metal posts spaced as necessary.

3. The silt fence will have an equivalent opening size of 30-50 mesh by U.S. Standard Sieve.

4. The maximum particle size passing the silt fence will be .59 millimeter.

5. The flow rate of the silt fence will be 20 gallon per minute per square foot.

6. The silt fence will have a burst strength of 210 pound per square inch.

7. The grab tensile elongation of the silt fence will be 15%.

8. The grab tensile strength of the silt fence will be 100 pounds.

9. The silt fence will be installed by initially excavating a trench approximately 6" wide by 6" deep along the contour for the entire length of the silt fence. Upon completion of the trench, the silt fence will be stretched along the trench with the prefabricated wood or metal posts being driven into the ground approximately 1.5' deep against the upper wall of the trench. The 6" trench flap will then be placed into the trench and covered with compacted fill material.

10. Inspections of the silt fence will be made bimonthly and repair or replacement will be made promptly as required.

11. Accumulated sediment will be removed from the silt fencing when necessary to ensure the proper function of the silt fencing. Accumulated sediment will be disposed of within Coarse Refuse Area No. 1.

12. Prior to the removal of the silt fence, any silt or sediment retained by the silt fence will be seeded with a mixture of both annual and perennial grasses, fertilized, and mulched to establish a permanent and diverse vegetative cover.

5. Transportation Facilities (780.33, 780.37)

(a) Describe the measures to be taken to ensure the interest of the public and landowners affected are protected if disturbance within 100 feet of the right-of-way or relocation of a public road is proposed.

1) Safety berms will be constructed adjacent to roadways to be disturbed to contain traffic.
2) Proper signs, informing the traveling public of the disturbance, will be posted along the road right-of-ways 500 feet from the beginning of the disturbance.
3) All safety requirements of the appropriate public health and safety, will be followed.

(b) Describe any unique design, feature, or structure which is necessary for the road to meet the performance standards of Subchapter K using any necessary maps, plans, or cross-sections. See Attachment III-B-5(b) for specifications of the roads at this facility. All roads used as a result of this application will be classified as ancillary roads. See Road Maps Sheet 1, Sheet 2 and Sheet 6.

(c) Describe, in detail, the measures to be taken during construction, maintenance and use of the transportation facilities to prevent damage to fish and wildlife and their habitat; public and private property; and erosion, siltation, and pollution of water. Roads will be constructed with the required ditching for proper drainage. Roads will be maintained with a dozer and motor grader patrol as required. Water will be used to reduce erosion and dust emissions. Roads will be located on ridge tops where possible or on the most stable slopes to minimize erosion. Vegetation will not be cleared except as necessary for roadway and ditch construction. After construction of the roads is complete, vegetation will be established on cut and fill slopes that exist along the all roads. To the extent possible, roads will be located above the sediment basins to be constructed for the mining operation in an effort to control or prevent additional contributions of suspended solids to stream flow or runoff outside the permit area and to comply with State and Federal water quality standards applicable to receiving waters and avoid the alteration of the normal flow of water in streambeds or drainage channels while preventing or controlling damage to public or private property. Where it is not possible or is impractical to locate roads in this manner, sediment control devices such as silt fencing, hay bale check dams and rock filter check dams will be used as necessary to maintain water quality. Roads not required for fire and sediment basin access will be reclaimed. See Attachment III-B-5(b) and Specifications for the construction, maintenance, and reclamation of ancillary roads.

Applicant: Jim Walter Resources, Inc.
Mine Name: North River No. 1 Underground Mine
Permit Number: P- 3222 / Revision R-38

Attachment III-B-5(b)

SPECIFICATIONS FOR THE CONSTRUCTION, MAINTENANCE AND RECLAMATION OF ANCILLARY ROADS

1. To the extent possible, roads will be located on ridges or on the most stable available slopes to prevent or minimize erosion, downstream sedimentation and flooding in an effort to prevent adverse effects to fish, wildlife and related environmental values.

2. To the extent possible, roads will be located above the sediment basins to be constructed for the mining operation in an effort to control or prevent additional contributions of suspended solids to stream flow or runoff outside the permit area and to comply with State and Federal water quality standards applicable to receiving waters and avoid the alteration of the normal flow of water in streambeds or drainage channels while preventing or controlling damage to public or private property. Where it is not possible or is impractical to locate roads in this manner, sediment control devices such as silt fencing, hay bale check dams and rock filter check dams will be used as necessary to maintain water quality.

3. Prior to construction, the roadway will be cleared, grubbed and will have the topsoil removed. The clearing limits will be kept to the minimum necessary to accommodate the roadbed and associated ditch construction.

4. Roads will be constructed of suitable compacted subgrade material and will have a minimum width of ten feet and a maximum width necessary to accommodate the largest equipment traveling the road.

5. Roadbeds will be cut to consolidated non-erodible material or will be surfaced with durable non-toxic, non-acid forming substances. Durable sandstone material, chert, crushed limestone, crushed concrete, crushed asphalt, red rock, ironore refuse, gravel, or other durable non-toxic, non-acid forming material approved by the Regulatory Authority will be hauled in from off site and placed on the roadbed to a depth of two inches.

6. No sustained grades will exceed ten percent unless deemed necessary, in which case appropriate sediment control facilities will be constructed. If grades in excess of fifteen percent are required, cross drains, ditch relief drains and road drainways will be located at a minimum distance of three-hundred feet.

7. Roads will be constructed so as to have adequate drainage utilizing ditches, cross drains and ditch relief drains. Roads will not be located in the channel of an intermittent or perennial stream unless specifically approved by the Alabama Surface Mining Commission. Additionally, no relocation and/or alteration of an intermittent or perennial stream will be done unless specifically approved by the Alabama Surface Mining Commission. In the event that it becomes evident that any drainage structures including culverts, bridges and/or low water crossings will be required in order to cross an intermittent or perennial stream, the structure will be designed to safely pass a 10 yr. - 6 hr. storm event in accordance with Alabama Surface Mining Commission requirements and prudent engineering practice and the approval of the design(s) will be acquired prior to the commencement of construction. Hay bale check dams and silt fences will be used at strategic locations when necessary to control sediment runoff. Immediately upon completion of construction, the side slopes of the road embankments and/or cuts will be fertilized, seeded with annual and perennial grasses and mulch will be added to aid in the prevention of erosion and to enhance seed germination. The seed mix will consist of, but is not limited to, some combination of the following species: bermuda grass, fescue, lespedeza, rye grass, brown top millet, clover and vetch. The particular species to be planted will vary with the planting season at the time of seed application.

8. Routine maintenance will be required to assure that the road continually meets performance standards and will consist of periodic grading, resurfacing, dust suppression and maintenance of sediment control facilities. Dust suppression will consist of the application of water, chemical binders and/or other dust suppressants. No oil will be utilized in this process. Spot seeding, fertilizing and mulching will be performed as necessary to improve vegetative cover on roadway slopes. A road damaged by a catastrophic event shall be repaired as soon as practicable after the damage has occurred.

9. Roads not to be retained as part of the post mine land use shall be reclaimed in accordance with the approved reclamation plan for this permit as soon as practicable after they are no longer needed as part of the mining and reclamation operation, using the following procedures:

   a. The road will be closed to traffic.

   b. All bridges, culverts and other drainage structures not approved as part of the post mine land use will be removed.

   c. All road surfacing materials that are not compatible with the post mine land use or revegetation requirements will be properly disposed of on-site or removed from the site for re-use.

d. Roadway cut and fill slopes shall be regraded and reshaped to be compatible with the post mine land use and to compliment the natural drainage pattern of the surrounding terrain.

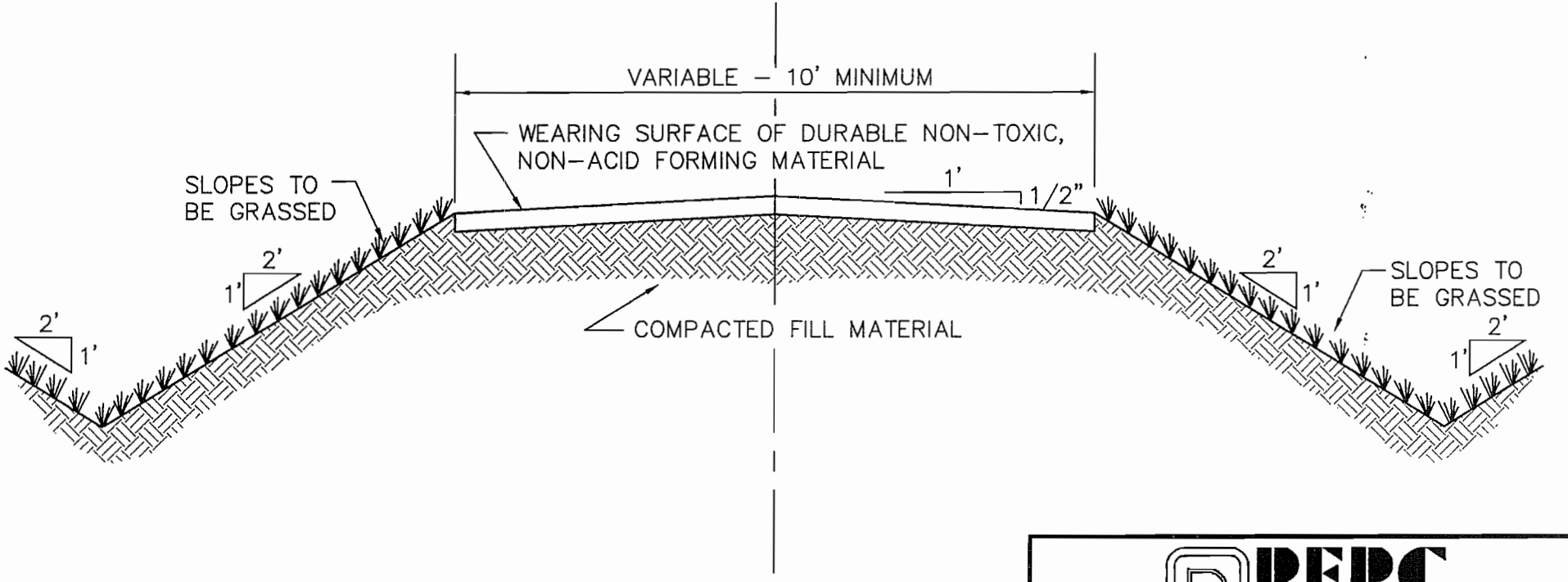
e. The natural drainage patterns shall be protected from surface runoff and erosion utilizing the installation of dikes and/or cross drains as necessary.

f. The roadbed shall be ripped or scarified as necessary, the topsoil or substitute or approved growing medium shall be replaced and revegetated in accordance with the approved reclamation plan for this permit.

10. The following drawings illustrate typical roadbed configurations for ancillary roads.

TYPICAL HAUL ROAD
FILL SECTION

NO SCALE



PERC ENGINEERING CO., INC.
1606 Highway 78 West, Jasper, Alabama 35501
P.O. Box 1712 Jasper, Alabama 35502
(205) 384-4566 Office (205) 384-9491 Fax

TYPICAL FILL SECTION
ANCILLARY HAUL ROAD

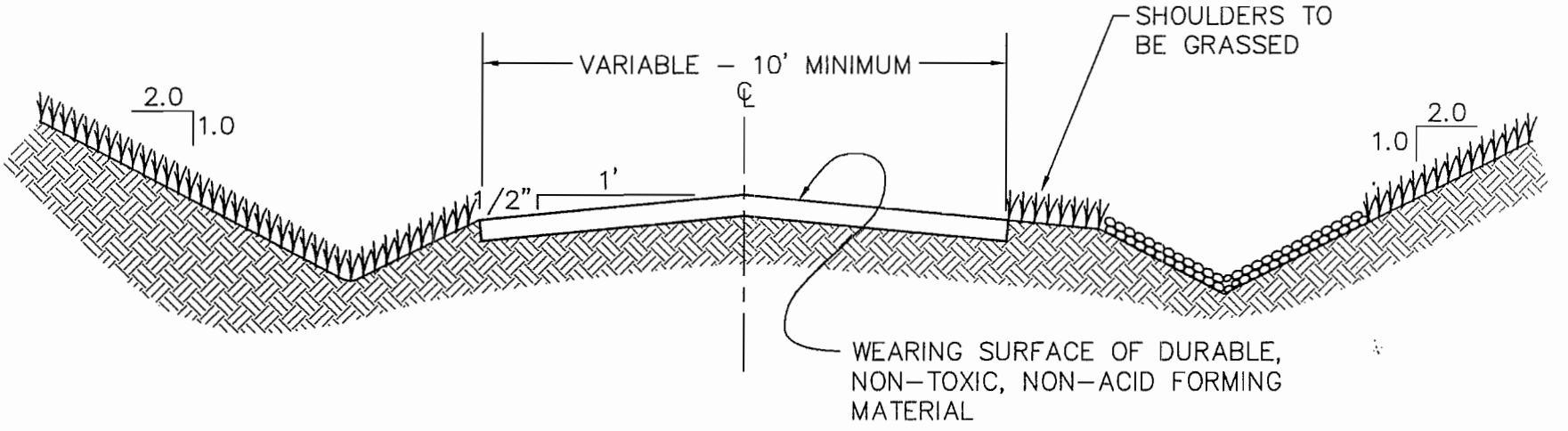
DRAWN BY: K.D.P. DWG. NAME: TYPHAULA	DATE: 2–3–97
APPROVED BY: S.R.I.	SCALE: NONE

ATTACHMENT III.–B.–5.

K:\S\TYPHAULA 02/03/97 16:56

TYPICAL HAUL ROAD
CUT SECTION

NO SCALE



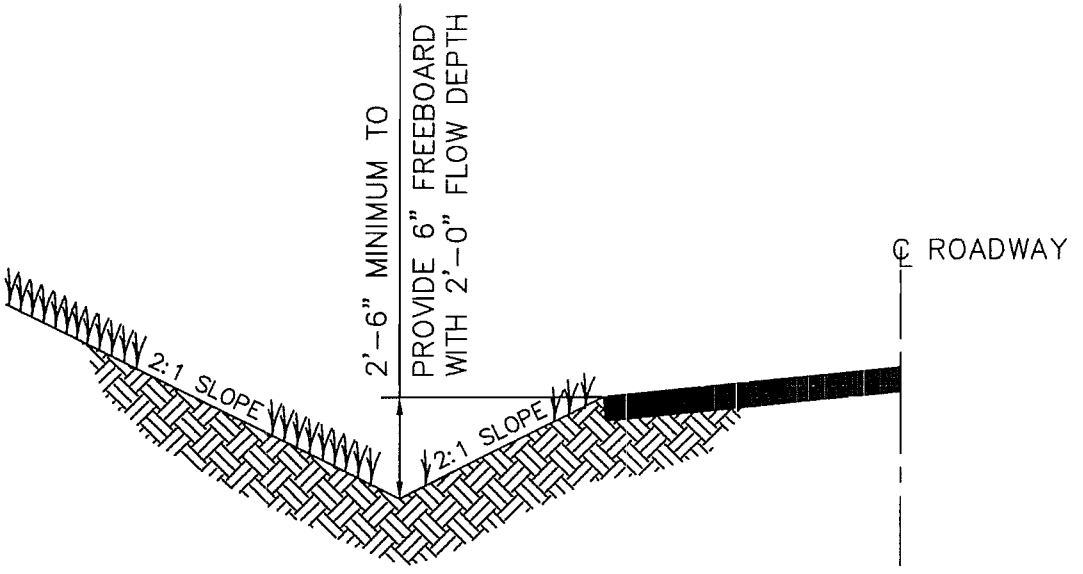
PERC ENGINEERING CO., INC.

TYPICAL CUT SECTION
ANCILLARY HAUL ROAD

DRAWN BY: K.D.P. DWG. NAME: TYPHAULB	DATE: 2–3–97
APPROVED BY: S.R.I.	SCALE: NONE

ATTACHMENT III.–B.–5.

K:\SS\TYPHAULB 02/04/97 08:08



MINIMUM DITCH GRADIENT = 1%

MAXIMUM DITCH GRADIENT = 5%

DITCH CHANNEL TO BE VEGETATED WITH A MIXTURE OF BERMUDA GRASS, FESCUE, AND LESPEDEZA TO CONFORM TO CLASS "D" RETARDANT CLASS.

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1608 Highway 78 West Jasper, Alabama 35501
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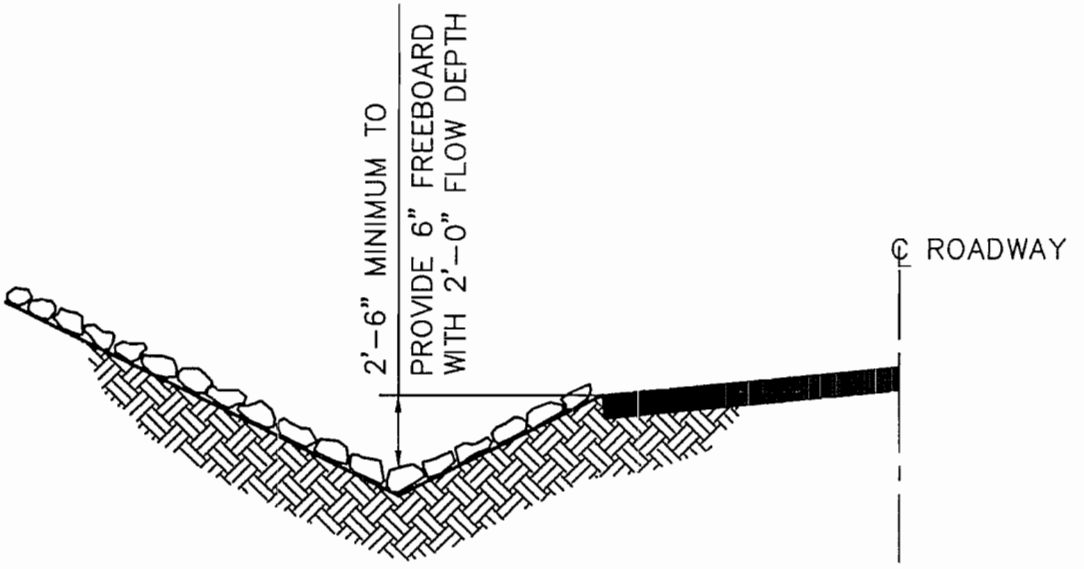
(205) 384-6666 Office (205) 384-6491 Fax

TYPICAL ANCILLARY ROADWAY DITCH CROSS SECTION

DRAWN BY: K.D.P. DWG. NAME: ANCIROAD	DATE: 2-4-97
APPROVED BY: R.E.P.	SCALE: NONE

K:\S\ANCIROAD 02/04/97 08:01



DITCH GRADIENT 5% TO 10%

DITCH CHANNEL TO BE LINED WITH NON-ERODIBLE NON-TOXIC, NON-ACID FORMING SANDSTONE OR LIMESTONE RIP-RAP. THE RIP-RAP WILL BE "CLASS 1" RIP-RAP AND HAVE A MINIMUM THICKNESS OF 12".

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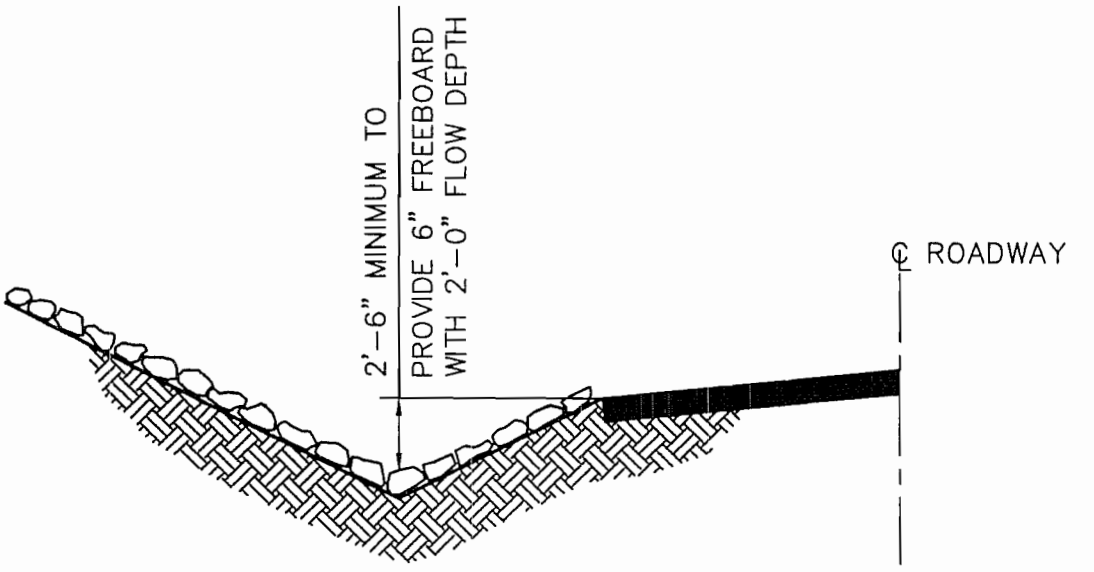
(205) 384-5555 office (205) 384-1491 fax

TYPICAL ANCILLARY ROADWAY DITCH CROSS SECTION

DRAWN BY: K.D.P. DWG. NAME: PRIMRD1	DATE: 2-4-97
APPROVED BY: R.E.P.	SCALE: NONE

K:\S\PRIMRD1 02/04/97 08:31



DITCH GRADIENT 11% TO 17%

DITCH CHANNEL TO BE LINED WITH NON-ERODIBLE NON-TOXIC, NON-ACID FORMING SANDSTONE OR LIMESTONE RIP-RAP. THE RIP-RAP WILL BE "CLASS 2" RIP-RAP AND HAVE A MINIMUM THICKNESS OF 16".

PERC ENGINEERING CO., INC.

TYPICAL ANCILLARY ROADWAY DITCH CROSS SECTION

DRAWN BY: K.D.P. DWG. NAME: PRIMRD2	DATE: 2-4-97
APPROVED BY: R.E.P.	SCALE: NONE

K:\SS\PRIMRD2 02/04/97 08:33