CHANGE ORDER FORM
DEP Contract No. SP644

Change Order No.: SP644-019 **Contractor Name:** CDM Constructors, Inc. (CDM)

Contractor Contract Manager: Dean Carter **Phone No:** (407) 660-6423

Description of Change(s) (Attach additional documents if referenced in description below.):

Activity Reference Code[1]	Change(s) authorized by this Change Order	Deliverable(s) and Due Date(s)	DEP Deliverable Review in Work Days	Payment Method	Dollar Value of Change (+ or -)[2]	Change in Payment Basis
A.	Pursuant to paragraph 34., the lump sum amount for Operation and Maintenance, Years 3-5, has been reduced by $1,912 based on the cost for Ardaman services related to the repair and redevelopment of MW-9 after it was damaged during construction activities on March 15, 2007. The charges for these services are summarized in Ardaman's May 11, 2007, correspondence.	As noted	No Change	No Change	($1,912.00)	Yes
B.	Pursuant to Attachment A (Scope of Services) and Attachment C of DEP Contract No. SP644, this Change Order provides a cost adjustment for treated process water under Task B for Year 2, as noted on the April 13, 2007 Year 2 Tabulation, 30-day Rolling Average NH3-N Loading Compensation Adjustment; and for the rainfall deficit under Task B of the contract to reflect the Year 2 rainfall deficit of 1.85 inches compared to the contract specified threshold of 50 inches per year, as noted on the April 13, 2007 Year 2 Tabulation, Rainfall Treatment Cost Adjustment.	No Change	No Change	No Change	($92,797.00)	Yes
C4b.2.	Pursuant to paragraph 34.D and 34.E, the lump sum cost for installation of the SCP drains under Task C4b.2 is being adjusted according to the agreed design quantity and CDM's May 4, 2007 change order request including revised installation rates based on the presence of hardpan-like material, that CDM states is unique to the SCP, below portions of the designed drain alignment.	As noted	No Change	No Change	$135,375.00	Yes

Total Increase or Decrease in Project Costs resulting from this Change Order:	$40,666.00
Ceiling Amount of Contract Impacted? (Yes or No)	Yes
Total Impact on Ceiling Amount all Change Orders (SP644-001 to SP644-019) to Date:	$1,772,478.00
Ceiling Adjustments made by Amendments (-- to --) to Date:	$0.00
Current Ceiling Amount Adjustments Needed:	$1,772,478.00

Notes: [1]Activity Reference Code shall conform to the activity code system established in Attachment C. [2]Contractor understands that all funding for DEP Contract SP644 is established by authorized funding increment amounts. This Change Order does not increase or decrease the authorized funding increment amount of the Contract. All changes in authorized funding increment amounts shall be processed by letter or contract amendment as addressed in paragraph 7 of the Contract.

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DEP Contract No. SP644
Change Order No. SP644-019, Page 2 of 2

Change(s) in Contract Completion Date Needed as a Result of this Change Order:

Current Contract Completion Date (without renewals):	February 22, 2010
Completion Date of Contract (without renewals) impacted by this Change Order? (Yes or No)	No
Increase or Decrease, in Calendar Days, Needed as a Result of this Change Order:	0
Total Increase/Decrease, in Calendar Days, Needed as a Result of all Change Orders (SP644-001 to SP644-019) to Date:	0
Completion Date Changes (in Calendar Days) Authorized by Amendments (__ to __) to Date:	0
Current Completion Date Changes, in Calendar Days, Needed by Amendment:	0

This Change Order is a modification to the Contract between the Contractor and the Department (DEP), and all contract provisions shall apply unless specifically exempted. The amount and time change designated are the maximum agreed to by both the Department and the Contractor for this change. In consideration of the foregoing adjustments in contract time and contract sum the Contractor hereby releases Department from all claims, demands or causes of action arising out of the transactions, events and occurrences giving rise to this Change Order. This written Change Order is the entire agreement between the Department and Contractor with respect to this Change Order. No other agreements or modifications shall apply to this Change Order unless expressly provided herein.

Approval Required	Signature	Date
Director or Deputy Director, Division of Water Resource Management (Contract Authority, DEP):	Richard W. Cantrell	May 23, 2007
DEP Contract Manager, Bureau of Mine Reclamation:	John Evatt	5/23/2007
Vice President, CDM Constructors Inc.:		5/22/07

List of Attachments/Exhibits Included with this Change Order:

Specify Type/Reference	Title/Description of Document	Number of Pages
DEP Contract No. SP644, Attachment C	DEP Contract No. SP644, Attachment C revised per Change Order SP644-019	8
April 13, 2007 Year 2 Water Consumption Adjustments	April 13, 2007 Water Consumption Adjustments for the Year 2 30-day Rolling Average NH3-N Loading Compensation and rainfall deficit.	2
Ardaman's May 11, 2007, correspondence	Ardaman's May 11, 2007, correspondence providing a summary of charges for repair and redevelopment of monitoring well MW-9.	1
CDM's May 4, 2007, change order request	CDM's May 4, 2007, correspondence providing a revised request for a Change Order related to installation of the SCP drains.	13

cc: Gwenn Godfrey, Procurement Section (MS93)
DEP Contracts Disbursements Section (MS78) - 2 Copies

ATTACHMENT C
PAYMENT AND DELIVERABLE SCHEDULE

	DESCRIPTION	Fixed-Price	Lump Sum Unit Rate	APPROVAL PERIOD (5)	DELIVERABLES	PAYMENT BASIS (8)
A. OPERATION AND MAINTENANCE						
OPERATION AND MAINTENANCE, Years 1-2		$6,552,794	NA		Operation and Maintenance activities are to be reported in the "Piney Point Operation and Maintenance Status Report" (Monthly Status Report) to be submitted with the monthly Operation and Maintenance Invoices. The format for the Monthly Status Report shall provide sufficient detail and summary information for the Department Contract Manager to determine the extent to which contract requirements are being met. The specific format will be mutually agreed upon by the Contractor and the Department.	Monthly invoice line items shall be provided as follows: 1. During the first contract month only for Operation & Maintenance (O&M), an invoice line item shall include the price for "O&M Activities and Mobilization" based on the agreed upon lump sum allocation of $ 375,000. 2. During the second month, and on a monthly basis thereafter, the lump sum O&M amounts shall be invoiced as "Site Operation & Maintenance Activities" based on the agreed upon O&M Monthly Lump Sum Allocation Values shown below for this Scope of Services. The invoice line item should reference the corresponding year and month for services. O&M Monthly Lump Sum Allocation Values, not to exceed: - Contract Year 1, Months 2-12 shall be $ 268,600 / month - Contract Year 2, Months 1-12 shall be $ 268,600 / month - Contract Year 3, Months 1-12 shall be $ 149,950 / month - Contract Year 4, Months 1-12 shall be $ 100,000 / month - Contract Year 5, Months 1-12 shall be $ 79,939 / month Retainage: None, unless otherwise specified in Change Order after contract execution. 3. Per Change Order SP644-007, a one-time lump sum amount of $ 16,884 may be added to an O&M monthly invoice to reimburse agreed upon costs for the unexpected cleanup of oil contaminated water and soil materials following leakage of oil from the abandoned ball mill lube oil tank that was located in the vicinity of the process water pumps in the phosphoric acid plant on July 25, 2005.
OPERATION AND MAINTENANCE, Years 3-5 (12)		$3,956,751	NA			
A1	Site Operation and Maintenance (Including Process Water and Runoff Management, Inspections, Site Security, Mowing, Repairs, and Post-Closure Care & Maintenance)				Activity to be included on the Monthly Status Report.	
A2	Utilities (Power, excluding power used in process water consumption, Water, Domestic Wastewater, Refuse Collection, etc.)				Include KWH consumption in the Monthly Status Report.	
A3	Safety Training and Safety Compliance				1. Incident Reports to be included in the Monthly Status Report and verbal notifications provided to DEP Contract Manager as needed. 2. A copy of an Employee Training Log shall be provided monthly showing the required training for employees performing services under this contract, and either the planned or actual dates of corresponding employee training.	
A4	Groundwater Monitoring Plan Implementation				Reporting according to Discharge Monitoring Reports (DMRs) per Administrative Agreement, National Pollutant Discharge Elimination System (NPDES) permit, or other Department issued orders as may be effective, issued, or amended during contract period for the subject site/facilities.	
A5	Surface Water Monitoring Plan Implementation				Reporting according to DMRs per Administrative Agreement, NPDES permit, or other Department issued orders as may be effective, issued, or amended during contract period for the subject site/facilities.	
A6	Project Coordination, Direction & Reporting				Include activity summary information in the Monthly Status Report including Monthly Site Meeting minutes between DEP contract manager, Receiver, Engineer, and Contractor's team.	
A7	Liability Insurance Coverage (Including Pollution Liability)				Copy of effective Insurance Policy showing policy type, coverage limits, and policy term.	
	July 25, 2005 Ball Mill Lube Oil Leak and Cleanup	$16,884			Copy of related invoices, and identification of costs for personnel and equipment used to contain and cleanup the July 25, 2005 Ball Mill Lube Oil Tank Leak.	
	February 7, 2006 OGS-S Subgrade and Liner Repair	$1,660			Copy of related invoices, and identification of costs for personnel and equipment used to repair the subgrade and liner on February 7, 2006, as submitted for Change Order SP644-016.	
	October 2006 maintenance and liner repair work needed to support temporary piezometer installation through the OGS-S lined ditch.	$1,784			Copy of related invoices, and identification of costs for personnel and equipment used to support temporary piezoemter installation and repair of the liner following removal on October 3-4, 2006, as submitted for Change Order SP644-017.	
	Additional NCP Storage Capacity for lime treatment sludge disposal, to be constructed in accordance with the Engineer's drawings and specifications.	$258,700			Copy of invoices for completed subcontract maintenance work needed for partial payments, as specified by Change Order SP644-018.	

Task A, Total Lump Sum: **$10,788,573**

	DESCRIPTION	Fixed-Price	Lump Sum Unit Rate	APPROVAL PERIOD [5]	DELIVERABLES	PAYMENT BASIS [8]
B. PROCESS WATER CONSUMPTION						
B1	Years 1-2, Up to 712.5 MGal Consumption [10], [13] Years 3-5, Greater than 712.5 MGal Consumption up to 950 MGal Consumption Water consumption shall continue under contract terms for process water consumption; however, volumes greater than 950 MGal are not billable beyond the lump sum amount, except as specified for Tasks B2 and B3. At the end of Years 1-2 from the effective start date for this task, any remaining lump sum balance of the Years 1-2 fixed-price, if any, will be paid upon satisfactory completion of Years 1-2 process water consumption tasks as outlined in this contract. At the end of Years 3-5 from the effective start date for this task, any remaining lump sum balance of the Years 3-5 fixed-price, if any, will be paid upon satisfactory completion of Years 3-5 process water consumption tasks as outlined in this contract.	$ 6,878,414 $ 2,021,268 $ 0.00	$ 10.70 / 1,000 gal. $ 8.51 / 1,000 gal. $ 0.00 / 1,000 gal.		Weekly Water Report spreadsheet including, but not limited to: - daily rainfall, pond water levels, and water volumes for each consumption method (i.e., Double-lime, RO, Spray Evaporation, or Spray Irrigation), - daily measured ammonia nitrogen and estimated total nitrogen concentrations at Outfall 003, - calculated daily total discharge load in lbs. for total nitrogen and ammonia nitrogen at Outfall 003, and - the total discharge volume at Outfall 003, the 15-day rolling average and 30-day rolling average ammonia nitrogen and total nitrogen load (in lbs.) at Outfall 003. The Weekly Water Report shall reflect the weekly period from Tuesday - Monday of a given week and be submitted to the Department within 48 hours of the end of the weekly period. The content and format for the Weekly Water Report shall be as agreed upon by the Department Contract Manager.	Monthly Invoice line items shall be provided as follows: 1. Each monthly invoice shall specify the total water consumption for each day in the period based on: - measured water consumption volumes (by final disposal / discharge method) for double lime, RO permeate, and/or spray irrigation discharges in accordance with Note [1], and - spray evaporation consumption based on the reported Operation Factor for the period, and the agreed upon monthly adjusted baseline evaporative loss design rates in Note [2], corresponding to each Department approved spray evaporation system. Retainage: None, unless otherwise specified in Change Order after contract execution.
	Spray Evaporation Consumption Adjustment	See B1	See B1			2. An additional invoice line item shall be added to reflect any invoiced amount or credit to be applied for an anticipated semi-annual "Spray Evaporation Consumption Adjustment" that will be determined based on semi-annual water balance modeling results provided by the Engineer. The water balance modeling results, or an alternative method proposed by the Engineer where mutually agreed upon, will be used to determine the spray evaporation consumption taking into consideration the measured or estimated water inputs/outputs and changes in water inventory.
B2	Year 1, Additional 10.6 MGal / inch rainfall above 55 inches Year 2, Additional 7.1 MGal / inch rainfall above 55 inches Year 3, Additional 4.1 MGal / inch rainfall above 55 inches	NA	$ 12.40 / 1,000 gal. $ 13.02 / 1,000 gal. $ 14.66 / 1,000 gal.			3. Pursuant to the Contract terms, an additional invoice line item shall be added at the end of Years 1, 2, and 3 to reflect any additional "Contract Allowance for Rainfall greater than 55 inches/year."
B3	Year 1, Debited 10.6 MGal / inch rainfall less than 50 inches Year 2, Debited 7.1 MGal / inch rainfall less than 50 inches Year 3, Debited 4.1 MGal / inch rainfall less than 50 inches	NA	$ 5.63 / 1,000 gal. $ 5.63 / 1,000 gal. $ 1.66 / 1,000 gal.			4. Pursuant to the Contract terms, an additional invoice line item shall be added at the end of Years 1, 2, and 3 to reflect any "Contract Deduction for Rainfall less than 50 inches/year."
B4	Years 1-2, Allowance for variation in drainable pore water volume and rate	$211,500	NA			5. A monthly invoice line item shall include a uniformly allocated "Pore Water Allowance" cost based on the lump sum amount for the indicated period. Accordingly, Years 1-2 shall be invoiced for a total not to exceed $211,500, or $8,812.50 / month and Years 3-5 shall be invoiced for a total not to exceed $70,500, or $1,985.34 / month.
	Years 3-5, Allowance for variation in drainable pore water volume and rate	$70,500	NA			

Task B, Total Lump Sum: **$9,181,682** [3]

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	DESCRIPTION	Fixed-Price	Lump Sum Unit Rate	APPROVAL PERIOD [5]	DELIVERABLES	PAYMENT BASIS [8]
C. CLOSURE CONSTRUCTION ACTIVITIES						
	RESERVOIR SLOPE COVER (All 4 Ponds)					
C1	Reservoir Slope Cover (All 4 Ponds)	$6,543,346	[4]	10		
	PHASE III - NGS-S COMPARTMENT					
C2a	NGS-S Reservoir (2005)	$4,136,718	[4]	10		
C2b	NGS-S Cap Area (2005)	$842,958	[4]	10		
C2c	OGS Cap Areas (2005)	$956,053	[4]	10		
C2d	NGS-N Relief Ditch (2005)	$912,406	[4]	10		
C2e	Re-Closure of NGS-N Relief Ditch if Used for Disposal of Plant Scale (at FDEP's Option)	$1,413,000	[4]	10		
	STACK SLOPES AND DITCHES					
C3a	Phase I Slopes - OGS (2005)	$2,540,065	[4]	10		
C3b	Phase II Slopes - NGS (2006)	$3,163,511	[4]	10		
	COOLING/SLUDGE PONDS & DITCHES					
C4a	NCP Closure	$3,178,598	[4]	10		
C4b	SCP Closure	$9,258,922	[4]	10		
C5	Gypsum Fill Management	$305,877	[4]	10		

Monthly submittals with Closure Construction Invoice:
- Weekly construction meeting minutes, prepared by Engineer
- Copies of agenda/minutes from ad hoc construction coordination and update meetings
- Percent completion of each phase of each activity and work element
- Conditional acceptance by Engineer of each phase/work element for invoicing of closure construction activities. See Note [4].

End of Construction Phase:
- Engineer's certification of completion of construction for each activity
- As Built drawings for each activity

1. Invoice based on Percent Complete, approved by Third Party Engineer, of the lump sum amount for each construction phase and each work segment.

Retainage: 25% of each submitted invoice amount, except as specified below for seeding activities, to be released following Engineer's conditional acceptance of a given phase/work segment. Upon completion, submittals shall include a copy of the Engineer's Completion of Construction Certification and As-built Drawings provided by the Contractor.

Retainage - seeding subtasks/activities: 40%, with the retainage to be released six months after seeding activity resulting in successful establishment of grassed cover following approval of Engineer.

2. In accordance with Change Order SP644-005, invoices for Task C1 (NGS-S Lined Slopes) and Tasks C2a, C2b, C2c, and C2d may include a percent complete and corresponding lump sum allocation reflecting borrow source preparation for materials stockpiled for the Gulfstream borrow source as of June 1, 2005. The percent complete for soil cover borrow source preparation activities under Task C1 (NGS-S Lined Slopes) and Tasks C2a, C2b, C2c, and C2d shall be determined based on not more than the agreed upon quantity estimate for the stockpiled soil cover materials, stockpiled as of June 1, 2005, where the estimated quantity has been approved by the Engineer and has an equivalent value not to exceed $5.50 per cy. The Department may release retainage for invoiced amounts for soil cover borrow source preparation only after the stockpiled materials have been screened for potential pollutants in accordance with a sampling plan accepted by the Department.

3. Invoices may include a lump sum allocation for stored materials under Task C3a (Phase I Slopes) where provided in accordance with Note [9] below.

Task C, Total Lump Sum: **$33,251,454**

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	DESCRIPTION	Fixed-Price	Lump Sum Unit Rate	APPROVAL PERIOD [5]	DELIVERABLES	PAYMENT BASIS [8]
	MISCELLANEOUS BILLABLE ITEMS					
E2	Transport Plant Scale to Stack (25,000 cy)	$250,000	$ 10.00 / cy	10	Documentation showing percent complete approval from Engineer for scale placement.	Invoice line items to be included on Construction Invoice based on percent task completion as approved by Engineer.
F5	Miscellaneous Lump Sum Costs other than Fluctuation and Plant Scale Costs	$956,000	NA		Record keeping as required by state law.	Invoice as a separate lump sum line item as "Miscellaneous Lump Sum Costs other than Fluctuation and Plant Scale Costs." This separate invoice item shall be included on the monthly Operation and Maintenance invoices based the contract fixed-price amount, uniformly allocated over the expected 5 year term of the contract.
	Fluctuation in Electric Power Costs - Operation and Maintenance			10	Documentation showing the applicable power usage (in KWH), and the change in unit power cost from Florida Power and Light (FPL) for most favored commercial customers in the Tampa Bay area after considering an escalation corresponding to 3% per year from the FPL base rate charged for such customers in December 2004.	An additional invoice line item shall be added to reflect an invoiced amount (invoice debit or credit) to be applied for the annual "Fluctuation in Electric Power Costs" that shall be determined as outlined in Note [6] for electric power costs applicable to Operation and Maintenance activities and electric power costs associated with Process Water Consumption. The line item and amount (invoice credit or debit) shall be invoiced in the monthly invoice for the end of Contract Years 2, 3, 4, and 5.
	Fluctuation in Liner Resin Costs			10	Documentation showing the neat liner quantities for 40-mil, 60-mil, and 80-mil liner determined by the Engineer for planned construction activities in Contract Years 1, 2, and 3, and Liner Resin unit price quotes and unit conversions as outlined in Note [7]. The documentation shall show the change in actual liner resin unit cost for Contract Years 1, 2, and 3 after considering an escalation corresponding to 3% per year from the November 2004 Base Liner Resin Unit Cost established as outlined in Note [7].	Documentation showing the neat liner quantities for 40-mil, 60-mil, and 80-mil liner determined by the Engineer from detailed construction drawings for planned construction activities in Contract Years 1, 2, and 3, and supporting documentation for determination of the "lowest adjusted price" (expressed in dollars per square feet) as outlined in Note [7].

Notes:

[1] For days where the calculated 30-day rolling average ammonia nitrogen discharge is greater than 20 lbs./day and less than or equal to 50 lbs./day, the "billable consumption volume" for discharges to Bishop Harbor will be adjusted to reflect 90% of the actual corresponding volume (i.e., equivalent to 0.9 times the lump sum unit price for <= 50 lbs./day ammonia nitrogen). For days where the calculated 30-day rolling average ammonia nitrogen discharge is greater than 50 lbs./day, the "billable consumption volume" for discharges to Bishop Harbor shall be shown as zero. For days where the calculated 30-day rolling average ammonia nitrogen discharge is less or equal to 20 lbs./day, the "billable consumption volume" for discharges to Bishop Harbor shall be the water treatment volume.

[2] Monthly Adjusted Baseline Evaporative Loss Design Rates are provided below, for each Department approved system, based on 24-hour/day, 7-days/week operation with an Operating Factor of 0.80.

2.1 SE-1, Existing Spray Evaporation System in NGS-N reservoir where the average Net Spray Consumption rate (in MGD) for the values from January through December is 0.200 MGD, when operating with 1169 nozzles at a minimum nozzle pressure and rate of 50 psi and 2.91 gpm/nozzle, respectively. When operating at sprayfield pressures between 25 and 50 psi, the Net Spray Consumption (MGD) at the given operating pressure may be determined by interpolating or extrapolating the Spray Consumption Factor from those shown in the corresponding table, multiplied by the listed monthly Net Spray Consumption (MGD) for the values at 50 psi to yield the reduced Net Spray Consumption (in MGD) for periods during that month when operating at pressures between 25 and 50 psi.

Month	Average Pond Evaporation (in)	Average Net Spray Consumption (MGD)
Jan	2.48	0.116
Feb	2.62	0.135
Mar	3.88	0.181
Apr	5.42	0.261
May	6.26	0.292
Jun	6.13	0.295

Month	Average Pond Evaporation (in)	Average Net Spray Consumption (MGD)
Jul	5.70	0.267
Aug	5.23	0.244
Sep	4.52	0.218
Oct	3.43	0.160
Nov	2.47	0.119
Dec	2.34	0.109

Spray Consumption Factors

Pressure (psi)	Net Spray Consumption (MGD)	Spray Consumption Factor (factor)
30	0.08	0.400
40	0.131	0.655
50	0.2	1.000

2.2 Pursuant to Change Orders SP644-004 and SP644-009, the Average Net Spray Water Consumption rates are shown below for areas SE-3, SE-4, SE-7, and SE-10, as described below, when operating at minimum nozzle pressure of 50 psi and inflow rate of 2.91 gpm/nozzle, respectively. Subject to Department approval, where the indicated number of operating spray system nozzles are changed from those indicated, the net spray consumption rate (in MGD) shall be adjusted accordingly, per nozzle increased or decreased, in the system as constructed. Reflecting changes from SP644-009, previously authorized, but not constructed SE-9 is removed and replaced with SE-10 as described herein. Per Change Order SP644-009, the quantity of spray evaporation nozzles and resulting evaporative consumption rates were changed from 360 to 208 and from 203 to 255 for SE-4 and SE-7 spray evaporation systems, respectively. Construction and operation of additional spray systems listed below shall provide for drift and erosion monitoring and immediate suspension of individual or all segments of such systems as the Department may determine is warranted.

When operating at sprayfield pressures between 25 and 50 psi, the Net Spray Consumption (MGD) at the given operating pressure may be determined by interpolating or extrapolating the Spray Consumption Factor from those shown in the corresponding table, multiplied by the listed monthly Net Spray Consumption (MGD) for the values at 50 psi to yield the reduced Net Spray Consumption (in MGD) for periods during that month when operating at pressures between 25 and 50 psi.

- SE-3, Spray Evaporation System in South Cooling Pond (SCP) Internal Dams and Ditch Area between Dams.
- SE-4, Spray Evaporation System in North Cooling Pond (NCP).
- SE-7, Spray Evaporation System along the northern and western dikes of SCP-N.
- SE-10, Spray Evaporation System addition in process water return canal.

Month	SE-3 Average Net Spray Consumption for 614 nozzles (MGD)	SE-4 Average Net Spray Consumption for 208 nozzles (MGD)	SE-7 Average Net Spray Consumption for 255 nozzles (MGD)	SE-10 Average Net Spray Consumption for 97 nozzles (MGD)
Jan	0.0777	0.0210	0.0292	0.0111
Feb	0.0821	0.0222	0.0309	0.0117
Mar	0.1215	0.0329	0.0457	0.0174
Apr	0.1698	0.0459	0.0639	0.0243
May	0.1961	0.0530	0.0737	0.0280
Jun	0.1920	0.0519	0.0722	0.0274
Jul	0.1786	0.0482	0.0672	0.0255
Aug	0.1638	0.0443	0.0616	0.0234
Sep	0.1416	0.0382	0.0532	0.0202
Oct	0.1075	0.0291	0.0404	0.0154
Nov	0.0774	0.0210	0.0291	0.0110
Dec	0.0733	0.0198	0.0276	0.0104

Spray Consumption Factors

Pressure (psi)	Net Spray Consumption (MGD)	Spray Consumption Factor (factor)
30	0.08	0.400
40	0.131	0.655
50	0.2	1.000

[3] Total Lump Sum for Process Water Consumption subject to adjustment for items B2 and B3 as governed by contract terms.

[4] Closure Construction Activities subject to schedule subdivision and future updates by Engineer, including subdivision into mutually agreed upon releasable work segments for progress monitoring and payment purposes. Please see Attachment C, Table 1, Closure Task Breakdown, Piney Point ITN 2005002C for current subdivision of Closure Construction Activities.

[5] The Approval Period shall be five (5) working days to inspect and approve the invoiced services for payment, unless another period of working days is specified herein.

[6] The adjustment to pricing, if any, for fluctuations in electric power costs will be made based upon the posted unit price (in $ per KWH) as charged by Florida Power and Light to its most favored commercial customers in the Tampa Bay area, compared to the adjusted unit price charged by Florida Power and Light to the same customers in December 2004 but after considering an escalation corresponding to 3% inflation per year. The change in unit power cost, relative to the escalated base unit price, in December 2005, December 2006, December 2007 and December 2008 will be used for making the adjustment (either debit or credit) for electric power costs during contract years 2, 3, 4 and 5, assuming a theoretical power usage of 11.3 Million KWH (Year 2), 3.8 Million KWH (Year 3), 2.6 Million KWH (Year 4) and 2.0 Million KWH (Year 5), respectively, during each of the corresponding four contract years.

[7] The adjustments to pricing, if any, for fluctuations in Liner Resin prices will be made based upon the neat liner quantities determined by the Engineer from detailed design drawings (without any adjustment for liner overlaps, liner buried in anchor trenches, increased liner area due to sloping surfaces, liner for repair patches, waste, etc.) for planned liner installation activities during each calendar year. The adjustment (either debit or credit) will be based upon the lower of either:

1) The lowest documented change in liner sheet unit price from at least two liner manufacturers (expressed in dollars per square feet) for orders placed in November 2004 escalated by 3% inflation per year, compared to orders placed in February 2005 and in December 2005 and December 2006, respectively, for planned construction activities in each of the first three contract years; or

2) The lowest documented change in Liner Resin unit price from at least two liner manufacturers or resin suppliers for orders placed in November 2004 compared to orders placed in February 2005 and in December 2005 and December 2006, respectively, for planned construction activities in each of the first three contract years. The change in actual liner resin unit price (expressed in dollars per pound of resin), after accounting for 3% escalation per year from the November 2004 BAFO unit price of $0.64/lb. shall be multiplied by 0.237 lb/ft2, 0.347 lb/ft2 and 0.442 lb/ft2 for 40-mil, 60-mil and 80-mil liner, respectively.

The lowest adjusted price as determined above (expressed in dollars per square feet) shall be multiplied by the neat liner quantity from detailed design drawings (expressed in square feet) times a factor of 1.10 adopted herein to accommodate additional liner buried in anchor trenches, liner overlaps, waste, etc.

[8] Lump Sum Unit rates or monthly allocations of the fixed cost amounts are rounded to the nearest cent or dollar as shown. In all cases, the final monthly invoice for a given period shall reflect the necessary amount so that the indicated fixed-price is not exceeded. There shall be no adjustment to the lump sum pricing presented in Attachment C for any fluctuations in Contractor's costs, including lime costs, fuel costs or any other utility or commodity cost during the term of the contract, except as specifically provided for herein, including Notes [6] and [7].

[9] In accordance with Change Order SP644-011, invoices for Task C3a (Phase I Slopes) may include a percent complete and corresponding lump sum allocation reflecting stored silica gravel to be used during the installation of drains associated with this Task, where the stored material quantity and value has been approved by the Engineer. Supporting documentation shall be provided with the invoice for the Engineer's review to determine that the stored materials conform to that specied for the task.

[10] In accordance with Change Order SP644-012, the Year 1-2 lump sum amount for water consumption was adjusted from $7,624,007 to 6,971,211 based on Year 1 adjustments for rainfall deficit, 30-day rolling average ammonia-nitrogen treatment compensation, and OGS-N fresh water input adjustements.

[11] In accordance with Change Order SP644-013, invoices for Task C3b (Phase II Slopes) and C4b. (SCP) may include a percent complete and corresponding lump sum allocation reflecting stored silica gravel and HDPE piping, manholes, and related structures to be used during construction associated with these Tasks, where the stored material quantity and value has been approved by the Engineer. Supporting documentation shall be provided with the invoice for the Engineer's review to determine that the stored materials conform to that specied for the task.

[12] In accordance with Change Order SP644-019, the lump sum for Operation and Maintenance for Years 3-5 was decreased from $3,958,663 to $3,956,751 to account for services provided by Ardaman and Associates to repair and redevelop monitoring well MW-9 following damage during CDM's construction activities on March 15, 2007. The Contractor shall reflect the amount of this cost decrease in the subsequent Operation and Maintenance invoice following the issuance of Change Order SP644-019.

[13] In accordance with Change Order SP644-019, the Year 1-2 lump sum amount for water consumption was decreased from $6,971,211 to 6,878,414 based on the Year 2 rainfall deficit, and the 30-day rolling average ammonia-nitrogen treatment compensation adjustments. The Contractor may elect to account for this Year 2 adjustment through credits, applied fully as available, on subsequent water consumption invoices following the issuance of Change Order SP644-019.

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CLOSURE TASK BREAKDOWN
PINEY POINT - ITN 2005002C

Item	Closure Construction Element		Engineer's Estimate	CDM BAFO Estimate	CDM BAFO PRICE	Computed Unit Rate	CDM BAFO Unit Rate	Totals	
	ITEM C1. RESERVOIR SLOPE COVER (All 4 Ponds)								
	Soil Cover (NGS-N, OGS-S & OGS-N Lined Slopes)	cy	270,000	270,000	$ 3,350,000	$ 12.41	$ 12.41		
	Soil Cover (NGS-S Lined Slopes - From C2)	cy	130,000	140,000	$ 1,580,924	$ 11.29	$ 11.29		
	80-Mil HDPE Liner (Crest Roads)	sf	175,000	175,000	$ 120,000	$ 0.69	$ 0.69		
C1	Drain Composite (All 4 Ponds)	sy	85,000	85,000	$ 816,000	$ 9.60	$ 9.60		
	Sodding NGS-N, OGS-S & OGS-N Slope Cover	ac	40	40	$ 351,700	$ 8,792.50	$ 8,792.50		
	Sodding NGS-S Slope Cover (From C2)	ac	18	18	$ 158,300	$ 8,794.44	$ 8,794.44		
	Seed or Sod (Soil Crest Cover)	ac	4	4	$ 9,400	$ 2,350.00	$ 2,350.00		**TOTAL ITEM C1**
	Other Ancillary (See Notes 16 and 17)	lump	lump	lump	$ 157,022	-			**$ 6,543,346**
	ITEM C2. PHASE III - NGS-S COMPARTMENT								
	Task C2a. NGS-S Reservoir (2005)								
	Sludge Excavation (see Note 4)	cy	5,000	0	$ -	$ -	$ 8.80		
	Gypsum Fill (see Note 4)	cy	380,000	206,500	$ 1,547,675	$ 7.49	$ 5.97		
	80-Mil HDPE Liner (see Note 5 and Note 33)	sf	3,000,000	3,000,000	$ 2,200,476	$ 0.733	$ 0.68		
	Soil Cover	cy	3,000	3,000	$ 30,794	$ 10.26	$ 11.29		
	Seed or Sod (West Dike Crest Road)	ac	1	1	$ 2,342	$ 2,341.67	$ 2,341.67		
	Outlet Structure	lump	lump	lump	$ 10,000	-	-	**Total Task C2a**	
	NGS-S Reservoir - Soil Cover Mobilization (see Note 6)	lump	lump	lump	$ 3,083	-	-		
	Other Ancillary	lump	lump	lump	$ 342,349	-	-	**$ 4,136,718**	
	(Note: Soil cover and associated drain composite and sodding were moved from Item C2 to Item C1)								
	Task C2b. NGS-S Cap Area (2005)								
	Gypsum Fill (see Note 12)	cy	5,000	46,700	$ 278,962	$ 5.97	$ 5.97		
	40-Mil HDPE Liner (see Note 7)	sf	500,000	354,250	$ 152,645	$ 0.431	$ 0.40		
	Soil Cover (See Note 26)	cy	25,000	29,150	$ 290,400	$ 9.96	$ 11.29		
	Seed or Sod	ac	10.5	10.5	$ 24,588	$ 2,341.67	$ 2,341.67		
	Outlet Structure	lump	lump	lump	$ 10,000	-	-	**Total Task C2b**	
	NGS-S Cap Area Soil Cover Mobilization (see Note 6)	lump	lump	lump	$ 38,771				
	Other Ancillary (see Note 34)	lump	lump	lump	$ 47,593	-	-	**$ 842,958**	
	Task C2c. OGS Cap Areas (2005)								
	Gypsum Fill (see Note 13)	cy	10,000	39,500	$ 235,953	$ 5.97	$ 5.97		
	60-Mil HDPE Liner (see Note 8)	sf	450,000	419,487	$ 215,462	$ 0.514	$ 0.47		
	Soil Cover (see Note 26)	cy	24,000	33,600	$ 344,479	$ 10.25	$ 11.29		
C2	Seed or Sod	ac	7.5	7.5	$ 17,563	$ 2,341.67	$ 2,341.67		
	Outlet Structures (2)	lump	lump	lump	$ 6,000	-	-	**Total Task C2c**	
	OGS Cap Areas Soil Cover Mobilization (see Note 6)	lump	lump	lump	$ 34,942				
	Other Ancillary (see Note 35)	lump	lump	lump	$ 101,654	-	-	**$ 956,053**	
	Task C2d. NGS-N Relief Ditch (2005)								
	Gypsum Fill (see Notes 14 and 39)	cy	5,000	37,860	$ 226,122	$ 5.97			
	60-Mil HDPE Liner (see Note 9)	sf	300,000	292,703	$ 150,342	$ 0.514	$ 0.47		
	Soil Cover (see Note 27)	cy	18,000	27,500	$ 287,335	$ 10.45	$ 11.29		
	Seed or Sod (Soil Cover)	ac	5	5	$ 11,708	$ 2,341.67	$ 2,341.67		
	Amended Gypsum Grassing (From C3)	ac	10	10	$ 66,636	$ 6,663.64	$ 6,663.64		
	Outlet Structure	lump	lump	lump	$ 3,000	-	-	**Total Task C2d**	
	NGS-N Relief Ditch Soil Cover Mobilization (see Note 6)	lump	lump	lump	$ 23,204				
	Other Ancillary (see Note 36)	lump	lump	lump	$ 144,059	-	-	**$ 912,406**	
	Task C2e. Re-Closure of NGS-N Relief Ditch if Used for Disposal of Plant Scale (at FDEP's Option)								
	60-Mil HDPE Liner	sf	500,000	500,000	$ 235,000	$ 0.47	$ 0.47		
	Soil Cover	cy	50,000	50,000	$ 531,000	$ 10.62	$ 10.62		
	Sodding	ac	12	12	$ 105,000	$ 8,750.00	$ 8,750.00		
	Outlet Structure Modification	lump	lump	lump	$ 3,800		-		
	Gypsum Fill (Encapsulate Scale)	cy	75,000	75,000	$ 273,000	$ 3.64	$ 3.64		
	Gypsum Borrow Area Work						-		
	Remove & Restore Soil Cover	cy	25,000	25,000	$ 93,500	$ 3.74	$ 3.74		
	Remove & Replace 40-Mil Liner	sf	350,000	350,000	$ 139,000	$ 0.40	$ 0.40		
	Restore Grass (Seed or Sod)	ac	8	8	$ 18,400	$ 2,300.00	$ 2,300.00	**Total Task C2e**	**TOTAL ITEM C2**
	Other Ancillary	lump	lump	lump	$ 14,300	-	-	**$ 1,413,000.00**	**$ 8,261,135.00**
	ITEM C3. STACK SLOPES AND DITCHES								
	Task C3a. Phase I Slopes - OGS (2005)								
	Gypsum Earthwork (see Note 15)	cy	50,000	111,250	$ 229,239	$ 2.06	$ 2.06		
	80-Mil HDPE Liner (Runoff Ditches) (see Note 10)	sf	575,000	524,457	$ 387,956	$ 0.740	$ 0.69		
	60-Mil HDPE Liner (Transfer Pond) (See Note 11)	sf	130,000	0	$ -	--	$ 0.47		
	60-Mil HDPE Liner (OGS Slope Pond) (See Note 11)	sf	70,925	70,925	$ 36,483	$ 0.514	$ 0.47		
	Drains	lf	5,500	5,610	$ 647,240	$ 115.37	$ 115.37		
	Soil Cover (see Note 24)	cy	80,000	43,000	$ 543,251	$ 12.63	$ 12.63		
	Soil Cover (OGS Slope Pond) (See Note 24)	cy	80,000	7,565	$ 95,574	$ 12.63	$ 12.63		
	Soil Grassing								
	Seeding (Stormwater Ponds)	ac	3	3	$ 7,031	$ 2,343.75	$ 2,343.75		
	Sodding (Runoff Ditches)	ac	13	13	$ 114,263	$ 8,789.47	$ 8,789.47		
	Amended Gypsum Grassing	ac	23	23	$ 153,264	$ 6,663.64	$ 6,663.64	**Total Task C3a**	
	Additional Panel Drains - OGS (see Note 30)								
	OGS Slope Pond and OGS-N Cap Area	lump	lump	lump	$ 21,941				
C3	Phase I (OGS) Ditches	lump	lump	lump	$ 10,749				
	Deepening the OGS-S South slope seepage drain (see Note 32)	lump	lump	lump	$ 90,000	-	-		
	Regrading - west slope of the NGS-N (See Note 38)	lump	lump	lump	$ 2,487	-	-		
	Other Ancillary (see Note 37)	lump	lump	lump	$ 200,586	-	-	**$ 2,540,065**	

CLOSURE TASK BREAKDOWN
PINEY POINT - ITN 2005002C

Item	Closure Construction Element		Engineer's Estimate	CDM BAFO Estimate	CDM BAFO PRICE	Computed Unit Rate	CDM BAFO Unit Rate	Totals	
	Task C3b. Phase II Slopes - NGS (2006)								
	Gypsum/Earthwork (see note 28)	cy	50,000	72,995	$ 150,411	$ 2.06	$ 2.06		
	Soil Import/Earthwork (see note 29)	cy	na	25,313	$ 271,608	$ 10.73	na		
	80-Mil HDPE Liner (Runoff Ditches) (see Note 18)	sf	225,000	400,350	$ 321,644	$ 0.80341	$ 0.69		
	60-Mil HDPE Liner (Stormwater Pond) (see Note 19)	sf	570,000	409,250	$ 231,043	$ 0.56455	$ 0.47		
	Drains	lf	7,000	7,140	$ 823,760	$ 115.37	$ 115.37		
	Soil Cover (see Note 25)	cy	70,000	81,200	$ 1,025,860	$ 12.63	$ 12.63		
	Soil Grassing								
	Seeding (Stormwater Pond)	ac	13	13	$ 30,469	$ 2,343.75	$ 2,343.75		
	Sodding (Runoff Ditches)	ac	6	6	$ 52,737	$ 8,789.47	$ 8,789.47		
	Amended Gypsum Grassing	ac	22	22	$ 146,600	$ 6,663.64	$ 6,663.64	**Total Task C3b**	**TOTAL ITEM C3**
	Additional Panel Drains - Phase II (NGS) Ditches (see Note 30)	lump	lump	lump	$ 5,248				
	Repair NGS-S South Slope Cavities (see Note 31)	lump	lump	lump	$ 8,373	-	-		
	Other Ancillary	lump	lump	lump	$ 95,759	-	-	**$ 3,163,511**	**$ 5,703,576.00**
	ITEM C4. COOLING/SLUDGE PONDS & DITCHES								
	Task C4a. NCP Closure								
	Earthwork (Soil)	cy	200,000	45,718	$ 311,918	$ 6.82	$ 6.82		
	Earthwork (Soil) - Quantity at Credit Rate (See Note 43)	cy	- -	152,332	$ 429,979	$ 2.82			
	80-Mil HDPE Liner (Runoff Ditches)	sf	100,000	100,000	$ 68,500	$ 0.685	$ 0.69		
	40-Mil HDPE Liner	sf	1,300,000	1,300,000	$ 514,800	$ 0.396	$ 0.40		
	Drains	lf	2,500	2,560	$ 293,880	$ 114.80	$ 114.80		
	Soil Cover	cy	110,000	103,184	$ 1,400,008	$ 13.57	$ 13.57		
	Soil Grassing								
	Seeding (Cap Areas)	ac	30	30	$ 70,292	$ 2,343.08	$ 2,343.08		
	Sodding (Runoff Ditches)	ac	4	4	$ 35,180	$ 8,795.00	$ 8,795.00	**Total Task C4a**	
	Other Ancillary	lump	lump	lump	$ 54,041			**$ 3,178,598**	
	Task C4b.1 SCP-S Phase I Closure (see note 21)								
	Earthwork (Soil) (see Note 22)	cy	25,000	43700	$ 298,034	$ 6.82	$ 6.82		
	80-Mil HDPE Liner (Process Water Sump) (see Notes 18)	sf	485,000	496,908	$ 391,062	$ 0.787	$ 0.69		
	Construct SCP Relief Ditch	cy	- -	11,000	$ 38,304	$ 3.48	- -		
	Construct Partition Dike	cy	- -	25,000	$ 170,500	$ 6.82	- -		
	Grade/Dewater for Sump	lump	- -	lump	$ 37,000		- -		
	Seepage Relief Drain	lf	- -	470	$ 58,656	$ 124.80	$ 114.80		
	Soil Grassing								
	Seeding (Limited Cap Areas for Process Water Sump)	ac	- -	1	$ 2,343	$ 2,343.00	$ 2,343.08	**Total Task C4b.1**	
	Other Ancillary	lump	lump	lump	$ 117,242			**$ 1,113,141.00**	
	Task C4b.2 SCP-S Phase II and SCP-N Closure								
	Earthwork (Soil) (see Note 42)	cy	25,000	109145	$ 463,311	$ 4.24	$ 6.82		
	80-Mil HDPE Liner (Runoff Ditches) (see Note 18 and 42)	sf	415,000	200000	$ 160,600	$ 0.803	$ 0.69		
	60-Mil HDPE Liner (see Note 42)	sf	- -	1,008,000	$ 569,520	$ 0.5650	$ 0.40		
	40-Mil HDPE Liner (see Note 20 and 42)	sf	3,200,000	2,374,201	$ 1,089,758	$ 0.4590	$ 0.40		
C4	Liner Pipe Vents, stormwater basin/ditch (see Note 42)	lump	- -	lump	$ 8,908		- -		
	Geocomposite - dike roads (see Note 42)	lump	- -	lump	$ 95,040		- -		
	Seepage Collection Drains								
	Drains (see Note 44)	lf	6,030	6320	$ 846,541	$ 133.95	$ 114.80		
	24" HDPE Riser Connecting Drain Segments by 003 (Install in drain price) (see Note 42)	lump	- -	lump	$ 2,813		- -		
	48" Seepage Collection Manhole East of PWS (No. 1) Incl. Valves - Detail 31/D6 (see Note 42)	lump	- -	lump	$ 46,913		- -		
	12" HDPE SDR 21 Connector Pipe (OGS Drain to No. 1) Detail 31/D6 (see Note 42)	lump	- -	lump	$ 21,280		- -		
	12" HDPE SDR 21 Connector Pipe (No. 2 to Point 6) Detail 31/D6 (see Note 42)	lump	- -	lump	$ 11,200		- -		
	12" HDPE SDR 21 Culvert at 003 Road Crossing Detail 34/D7 (see Note 42)	lump	- -	lump	$ 4,453		- -		
	36" Seepage Collection Manhole East of PWS (No. 2) Detail 31/D6 (see Note 42)	lump	- -	lump	$ 25,875		- -		
	48" Seepage Collection Manhole North of SCP N Detail 40/D6 (see Note 42)	lump	- -	lump	$ 27,506		- -		
	12" HDPE SDR 21 Connector Pipe to 48" Seepage Collection Manhole Detail 40/D6 (see Note 42)	lump	- -	lump	$ 4,815		- -		
	Soil Cover	cy	290,000	283230	$ 3,370,390	$ 11.90	$ 13.57		
	Soil Grassing								
	Seeding (Cap Areas and Plant Areas) (See Note 42)	ac	99	105	$ 246,023	$ 2,343.08	$ 2,343.08		
	Sodding (Runoff Ditches Point 16 - 26, ar. Rip Rap (see Note 42)	ac	16	2	$ 19,349	$ 9,674.50	$ 8,795.00		
	SCP Materials Management (see Note 41)	lump	- -		$ 690,041		- -		
	SCP Stockpile Drains and 24-in. Sump (see Note 42)	lump	- -		$ 110,674		- -		
	SCP Stormwater Control Structures (see Note 42)	lump	- -		$ 54,680		- -		
	24-in. Relief Manhole at Process Water Sump (see Note 42)	lump	- -		$ 16,126		- -		
	12-in. HDPE SDR 21 Pipe (Relief Drain MH to No. 1) (see Note 42)	lump	- -	180	$ 10,080	$ 56.00	- -		
	Remove/Replace Piping, as Needed, Crossing for 003 (see Note 42)	lump	- -		$ 12,656				
	Additional Ancillary, including Basin No. 2 (see Note 42)	lump	- -		$ 52,250		- -	**Total Task C4b.2**	**TOTAL ITEM C4**
	Other Ancillary (see Note 40)	lump	lump	lump	$ 184,979			**$ 8,145,781**	**$ 12,437,520**
	ITEM C5. GYPSUM FILL MANAGEMENT								
	Task C5a. Phase I Slopes - Excess Placement (See Note 23)								
	OGS West Slope Fattening and Slope Pond	cy	- -	17,680	$ 69,129	$ 3.91	$ 3.91		
	OGS-S Cap West Dike Relocation	cy	- -	3,920	$ 23,402	$ 5.97	$ 5.97		
	Northeast Corner NGS-N Ramp Fattening	cy	- -	2,900	$ 17,313	$ 5.97	$ 5.97	**Total Task C5a.**	
	OGS S., NGS-N Rel. Ditch S. and OGS S. at NGS-N W. Slopes	cy	- -	8,405	$ 17,314	$ 2.06	$ 2.06	**$ 127,158**	
	Task C5b. Phase I Excess Gyp/Soil Stockpiles (See Note 23)								
	Gypsum Stockpiles (1-10) & OGS Ditch Deficiency (see Note xx)	cy	- -	11,500	$ 43,930	$ 3.82	$ 3.82		
	Gypsum from OGS S. berm to Phase II NGS Slopes	cy	- -	3,700	$ 25,789	$ 6.97	$ 6.97	**Total Task C5b.**	**TOTAL ITEM C5**
	Gypsum/Soil mix stockpile - SCP Process Water Sump Partition	cy	- -	25,000	$ 109,000	$ 4.36	$ 4.36	**$ 178,719**	**$ 305,877**
	ITEM C - CLOSURE CONSTRUCTION TOTAL								**$ 33,251,454**

See Notes on Following Page.

CLOSURE TASK BREAKDOWN
PINEY POINT - ITN 2005002C

Item	Closure Construction Element	Engineer's Estimate	CDM BAFO Estimate	CDM BAFO PRICE	Computed Unit Rate	CDM BAFO Unit Rate	Totals

NOTES:

1. The "Engineer's Estimate" column reflects those quantities provided by the Engineer for the Department under the ITN and BAFO.
2. In some cases, the values for the CDM BAFO Estimate and the CDM BAFO Price indicate task breakdowns that were computed proportionately to the Department's breakdown values for elements where CDM's BAFO quantity is less than or greater than the Engineer's estimated quantity.
3. CDM's BAFO values for Other Ancillary items were prorated to individual tasks on the basis of total task price.
4. CDM's original BAFO Estimate and Price for Sludge Excavation was revised from 5,000 cy and $44,000 to 0 cy and $0 per Change Order SP644-002. CDM's original BAFO Estimate and Price for Gypsum Fill was revised from 373,740 cy and $2,232,530 to 206,500 cy and $1,547,675 per Change Order SP644-002.
5. CDM's original BAFO Price for 80-mil HDPE liner was revised from $2,054,000 to $2,222,208 per Change Order SP644-003 for the fluctuation in liner resin costs.
6. CDM's original BAFO Prices for soil cover placement Tasks C2a, C2b, C2c, and C2d were reduced to allocate prorated costs from the existing lump sum prices for expedited cover soil mobilization work elements per Change Order SP644-005.
7. CDM's original BAFO quantity for 40-mil liner on the NGS cap area was revised from 373,000 sf and $198,000 to 354,219 sf and $152,645, per Change Order SP644-006, based on updated quantities and fluctuation in liner resin costs.
8. CDM's original BAFO quantity for 60-mil liner on the OGS cap area was revised from 450,000 sf and $ 211,800 to 419,487 sf and $215,462, per Change Order SP644-006, based on updated quantities and fluctuation in liner resin costs.
9. CDM's original BAFO quantity for 60-mil liner for the NGS Relief Ditch area was revised from 300,000 sf and $ 141,200 to 292,703 sf and $150,342, per Change Order SP644-006, based on updated quantities and fluctuation in liner resin costs.
10. CDM's original BAFO quantity for 80-mil liner for the OGS runoff ditches was revised from 575,000 sf and $393,875 to 524,457 sf and $387,956, per Change Order SP644-006, based on updated quantities and fluctuation in liner resin costs.
11. CDM's original BAFO quantity for the 60-mil liner for the OGS Transfer Pond was revised from 130,000 sf and $61,286 to 0 sf and $0, per Change Order SP644-006, based on elimination of this pond from the design. The 60-mil lined OGS Slope pond was added at 70,925 sf and $36,453 based on similar BAFO unit rates and adjusting for fluctuation in liner resin costs per Change Order SP644-006.
12. CDM's original BAFO quantity for Gypsum Fill for the NGS-S Cap area was revised from 5,000 to 46,700 cy per Change Order SP644-007.
13. CDM's original BAFO quantity for Gypsum Fill for the OGS Cap areas was revised from 10,000 to 39,500 cy per Change Order SP644-007.
14. CDM's original BAFO quantity for Gypsum Fill for the NGS-N Relief Ditch was revised from 5,000 to 28,100 cy per Change Order SP644-007.
15. CDM's original BAFO quantity for Phase I Slope areas (OGS West and South Slopes) was revised from 94,318 to 111,250 cy after excluding 15,650 cy earthen material (as neat fill assuming 15% shrinkage) from the OGS south slope toe per Change Order SP644-007.
16. CDM's original BAFO Lump Sum Price for Other Ancillary under Task C1, Reservoir Slope Cover, was revised from $68,000 to $104,892 per Change Order SP644-008 based on modifications needed for the existing OGS-S compartment drain as specified by the December 16, 2005 Slope Cover Construction Drawings for the OGS Ponds.
17. CDM's BAFO Lump Sum Price for Other Ancillary under Task C1, Reservoir Slope Cover, was revised from $104,892 to $157,022 per Change Order SP644-009 based on modifications needed for the existing OGS-N compartment drain and inlet stem wall additions for the OGS-S and OGS-N compartments as specified by the December 16, 2005 Slope Cover Construction Drawings for the OGS Ponds.
18. CDM's original BAFO quantity for 80-mil liner for the Phase II Runoff Ditches, SCP Process Water Sump, and SCP ditches were revised from 225,000 sf and $154,125 to 400,350 sf and $ 321,644; from 485,000 sf and $332,225 to 496,908 sf and $391,062; and from 415,000 sf and $284,275 to 415,000 sf and $302,178 per Change Order SP644-010, based on updated quantities and fluctuation in liner resin costs.
19. CDM's original BAFO quantity for 60-mil liner for the Phase II Stormwater Pond was revised from 570,000 sf and $268,714 to 409,250 sf and $231,043 per Change Order SP644-010, based on updated quantities and fluctuation in liner resin costs.
20. CDM's original BAFO quantity for 40-mil liner for the SCP Cap area was revised from 3,200,000 sf and $1,267,200 to 3,200,000 sf and $1,321,513 per Change Order SP644-010, based on updated quantities and fluctuation in liner resin costs.
21. The Task Breakdown for Task C4b. was modified into Tasks C4b.1 and C4b.2 per the June 9, 2006 Dispute Resolution Agreement - Process Water Sump Cost Breakout. Task elements under Task C4b.1 and Task C4b.2 have been modified as specified under this June 9, 2006 agreement.
22. CDM's original BAFO earthwork quantity for the SCP was revised from 49,508 to 24,754 cy for SCP-S Phase II and SCP-N activity with the balance (I.e., 24,754 cy) being allocated and increased to 43,700 cy for the process water sump under SCP-S Phase I tasks per the June 9, 2006 Dispute Resolution Agreement - Process Water Sump Cost Breakout.
23. Task 5, Gypsum Fill Management, added in accordance with Change Order SP644-013, in order to provide for increased quantities of gypsum fill that needed to be either placed and compacted in addition to design quantities (Task C5a.), or material that needed to be stockpiled or placed (Task C5b.) for future works in relation to the Phase I gypsum/earthwork activities under the contract.
24. CDM's original BAFO quantity for Phase I (OGS) soil cover changed from 88,878 cy and $1,121,598 to 43,000 cy and $543,251 for the OGS ditches and 7,565 cy and $95,574 for the OGS Slope Pond per Change Order SP644-014.
25. CDM's original BAFO quantity for Phase II (NGS) soil cover changed from 77,681 cy and $981,402 to 81,200 cy and $1,025,860 per Change Order SP644-014.
26. CDM's original BAFO quantities for NGS-S Cap Area soil cover changed from 37,725 cy and $387,232 to 29,150 cy and $290,400; and CDM's original BAFO quantity for OGS Cap Areas changed from 34,000 cy and $348,996 to 33,600 cy and $344,479, based on the original BAFO lump sum with a unit rate of $11.29 / cy, per Change Order SP644-014.
27. CDM's original BAFO quantity for NGS-N Relief Ditch soil cover changed from 22,578 cy and $231,754 to 27,500 cy and $287,335, based on the original BAFO lump sum with a unit rate of $11.29 / cy, per Change Order SP644-014.
28. CDM's original BAFO quantity for Phase II Slopes gypsum fill/earthwork was revised from 94,319 cy and $194,351 to 72,995 cy and $150,411 per Change Order SP644-014.
29. CDM's original BAFO quantity and the Engineer's estimate for Phase II Slopes gypsum fill/earthwork did not include a quantity for imported soil fill that was needed in addition to local soil fill to complete construction of the Phase II ditch and stormwater pond system. The calculated imported soil fill/earthwork quantity (neat) of 25,313 cy and cost of $271,608 were added per Change Order SP644-014.
30. Task C3 was modified to include additional panel drains (as noted above), based on the Engineer's revised drawings, for a total cost of $37,938 per Change Order SP644-014.
31. Task C3b. was modified to provide a lump sum cost of $8,373 for repairs of the NGS-S South Slope solution cavities discovered during in the Phase II slope closures per Change Order SP644-015.
32. Task C3a. was modified to provide an agreed upon lump sum cost of $90,000 for deepening of the OGS-S South Slope seepage drain per Change Order SP644-015.
33. CDM's lump sum price for 80-mil HDPE liner under Task C2a. for the NGS-S reservoir was revised from $2,222,208 (as previously revised per Change Order SP644-005) to $2,200,476 to provide a credit of $21,732 for the Department's costs for the Engineer's professional services that were required in conjunction with liner repair work in the NGS-S compartment per Change Order SP644-015.
34. The lump sum cost for Other Ancillary items under Task C2b was modified from $53,851 to $47,593 based on Change Order SP644-016 for the Phase I outlet/piping changes.
35. The lump sum cost for Other Ancillary items under Task C2c was modified from $53,114 to $101,654 based on Change Order SP644-016 for the Phase I outlet/piping changes.
36. The lump sum cost for Other Ancillary items under Task C2d was modified from $39,686 to $144,059 based on Change Order SP644-016 for the Phase I outlet/piping changes.
37. The lump sum cost for Other Ancillary items under Task C3a was modified from $97,241 to $200,586 based on Change Order SP644-016 for the Phase I outlet/piping changes.
38. Task C3a. was modified to include $2,487 for the costs necessary to regrade (cut) the existing west slope of the NGS-N compartment to match design grades at the interface with the Phase I storm water ditch in accordance with Ardaman's 1/9/2006 directions per Change Order SP644-016.
39. CDM's quantity for Gypsum Fill for the NGS-N Relief Ditch, Task 2d., was revised from 28,100 cy and $167,855 to 37,860 cy and $226,122 per Change Order SP644-017.
40. Task C4b.2 was modified by Change Order SP644-018 to provide costs for initial invoicing for dredge mobilization, installation of the dredge line, and initial survey/site cleanup, subject to 25% retainage to be released following acceptance by the Engineer of works removing the SCP from the process watershed under Task C4b.2. Pursuant to Change Order SP644-018 the ancillary cost was increased by $134,500 from $50,479 to $184,979.
41. Task C4b.2 was modified per the March 19, 2007 Dispute Resolution Agreement - Remaining Cooling Pond Closures to include SCP Material Management costs for relocation of sludge material or fines to the NCP, as needed, to proceed with closure activities in accordance with the SCP Design Drawings. SCP Material Management costs are in addition to those previously provided under Change Order SP644-018 (see Note 40) and are subject to the same retainage release conditions.
42. Task quantity and lump sum amount modified per March 19, 2007 Dispute Resolution Agreement - Remaining Cooling Pond Closures
43. Earthwork Quantity to be adjusted based on the agreed upon amount realized in the SCP temporary Soil Mix Stockpile per the March 19, 2007 Dispute Resolution Agreement.
44. The design quantity and lump sum amount for the SCP drain, under Task C4b.2, was modifified from 6,195 lf and $711,166 to 6,320 lf and $846,541 per Change Order SP644-019.

Department Contract No. SP644
April 13, 2007, Year 2 Tabulation
30-day Rolling Average NH_3-N Loading Compensation Adjustment

Invoice	Invoice Date	Period	Treatment Total, Gallons	Adjusted Treatment, Gallons	Difference, Gallons	Adjusted Value [1]
13B	5/19/05	Apr-06	21,201,892	20,626,938	574,954	$ 6,152.01
14B	6/13/05	May-06	21,047,590	20,585,843	461,747	$ 4,940.69
15B	7/12/05	Jun-06	20,809,967	20,085,258	724,709	$ 7,754.39
16B	8/12/05	Jul-06	24,061,480	24,061,480	0	$ -
17B	9/19/05	Aug-06	32,031,549	32,031,549	0	$ -
18B	10/11/05	Sep-06	32,641,018	32,641,018	0	$ -
19B	11/9/05	Oct-06	29,998,493	29,998,493	0	$ -
20B	12/21/05	Nov-06	23,580,057	23,580,057	0	$ -
21B	2/6/06	Dec-06	2,374,563	2,374,563	0	$ -
22B	2/10/06	Jan-07	0	0	0	$ -
23B	3/9/06	Feb-07	2,464,556	2,464,556	0	$ -
24B	4/4/06	Mar-07	24,499,746	24,499,746	0	$ -
Totals			234,710,911	232,949,501	1,761,410	$ 18,847

Notes:

[1] Year one through two of contract water treatment adjustments calculated based on year 1 and 2 lump sum per unit at a rate of $10.70 / 1,000 gallons.

Prepared by:\ Angie Bright
Checked by:\ John Coates

April 2, 2007, Year Two Tabulation
Rainfall Treatment Cost Adjustment
Department Contract No. SP644

Period	Measured Rainfall, inches (1) Outfall OO3 Rain gage	Guard Shack Rain gage	Average Rainfall, inches
March 2007	0.61	0.73	0.68
February 2007	2.51	2.31	2.42
January 2007	3.38	2.99	3.19
December 2006	2.39	2.62	2.52
November 2006	1.68	1.49	1.59
October 2006	0.56	0.72	0.65
September 2006	11.76	12.93	12.39
August 2006	7.08	5.00	6.08
July 2006	9.14	6.42	7.82
June 2006	8.12	8.07	8.13
May 2006	2.53	2.47	2.51
April 2006	0.21	0.13	0.17
		Total:	48.15

Notes:

(1) Year two rainfall amounts as reported in the Weekly Water Report submitted by CDM on April 11, 2007.

Cost Adjustment:

1. In accordance with item B3, Attachment C, Payment and Delievaerable Shedule for Contract SP644, Year 2 to be debited 7.1 MGal / inch rainfall less than 50 inches at cost of $5.63 / 1,000 gal.

Rainfall Deficit from 50 inches:	1.85	inches
Equivalent Volume at 7.1 Mgal/inch:	13.135	MGal
Adjustment Cost at $5.63 / 1,000 gal.:	$73,950.05	

Prepared by:\ Angie Bright
Checked by:\ John Coates

Ardaman & Associates, Inc.

Geotechnical, Environmental and
Materials Consultants

OFFICES: ORLANDO - TALLAHASSEE - SARASOTA - COCOA - BARTOW - FT. MYERS -
FT. LAUDERDALE - MIAMI - TAMPA - PORT CHARLOTTE - PORT ST. LUCIE - WEST PALM BEACH
8008 S. ORANGE AVENUE
ORLANDO, FLORIDA 32809
PHONE 407-855-3860

DATE May 11, 2007

Mr. John Coates
Bureau of Mine Reclamation
Department of Environmental Protection
2051 East Dirac Drive
Tallahassee, FL 32310-3760

John:

Please find below a summary of charges for Professional Services relating to Contract No. SP 663 between FDEP and Engineer (executed on June 30, 2006) that were incurred in connection with repair of Monitor Well MW-9 which had previously been invoiced to the Department in Invoices 46271 and 46398 dated April 12 and May 7, 2007 respectively.

Field Exploration Services		
Mob/Demob: Men & Equipment - 2.0 crew-hours @ $160.00 per hour	$ 320.00	
Mob/Demob: Truck Mileage (E. Parker) - 110 truck-miles @ $0.60 per mile	66.00	
Piezometer/Well Installation: 1 crew-hour @ $175.00 per hour	175.00	
Pipe Solid - 2.0 SLJ PVC 40: 7 feet @ $2.25 per foot	15.75	
Coupling - 2.0 SLJ PVC 40: 1 coupling @ $1.15 each	1.15	
Cap - 2.0 SLJ PVC 40: 1 cap @ $1.00 each	1.00	
Mob/Demob: Truck Mileage (R. Cabral) - 110 truck-miles @ $0.60 per mile	66.00	
Well Protective Pad Installation: 3.0 crew-hours @ $175.00 per hour	525.00	
Well Clearing/Sensitivity/Water Level: 3.5 crew-hours @ $160.00 per hour	560.00	
Sakrete Mix: 2 bags @ $7.75 each	15.50	
4" Aluminum Protector Pipe: 1 pipe @ $110.00 each	110.00	
Air Compressor (@ Centr. Development Pump rate): 1 day @ $57.00 per day	57.00	
Subtotal Field Exploration Services	$ 1,912.40	$ 1,912.40
TOTAL AMOUNT PREVIOUSLY INVOICED		**$ 1,912.40**

PAYMENT TERMS: NET 30 DAYS FROM INVOICE DATE; INVOICES WILL BE SENT EVERY FOUR WEEKS FOR CONTINUED PROJECTS. CHARGES AT 1½% PER MONTH WILL BE LEVIED ON INVOICES NOT PAID WITHIN 30 DAYS FROM INVOICE DATE.

Coates, John

From: Carter, Dean [CarterDE@cdm.com]
Sent: Friday, May 04, 2007 11:36 AM
To: Coates, John
Subject: SCP Drains
Attachments: SCP Seepage Drains Change Order CDM Install Jean Wilson 46 Day Duration.xls

John,
Attached is CDM's revised request, per our discussion this morning, for the SCP drain installation to account for adjusted installation rates given the site conditions and the hardpan unique to the SCP closure area.

Dean

<<SCP Seepage Drains Change Order CDM Install Jean Wilson 46 Day Duration.xls>>

BAFO and Current Prices Summary
Seepage Collection Drains

Construction Element	BAFO	Current Prices	Difference
	CDM	CDM	
	6,195 LF	6,320 LF	
SCP-S Phase II and SCP-N Closure - Drains			
Gravel	$271,955.18	$270,022.88	
12-oz/sy Geotextile	$20,366.92	$24,117.80	
Drains	$65,381.92	$125,209.36	
Header and Culvert Pipes	$0.00	$4,064.16	
Connector and Outlet Pipes	$5,718.80	$196.18	
Cleanouts	$10,704.75	$24,714.83	
Miscellaneous Materials	$495.03	$495.03	
Installation	$266,086.00	$313,847.62	
Total	**$640,708.59**	**$762,667.87**	
Subtotal	**$640,708.59**	**$762,667.87**	
CDM Overhead/Indirects (9%)	**$57,663.77**	**$68,640.11**	
Insurance (1%)	**$6,407.09**	**$7,626.68**	
Florida Transaction Fee (1%)	**$6,407.09**	**$7,626.68**	
Grand Total	**$711,186.53**	**$846,561.34**	**$135,374.81**
Amount of Change Order			**$135,375**

3/8" Alabama Buff Gravel Calculations
Seepage Collection Drains

Bids	Length	Unit	Cross Section 5'x2.5'x10	Unit	3.0'x3.0'x12	Unit	Volume	Unit	Volume	Unit	Volume	Unit	5% Waste	Unit	Rounded Total	Unit	Fall 2004 Prices * Unit Price	Subtotal	Tax	Freight	Total	Notes
CDM BAFO	6,195	LF			22.5	SF	139,388	CF	5,162.50	CY	6,969.38	tons	348.47	tons	7,318.00	tons	$30.50	$223,199.00	$14,507.94	$34,248.24	$271,955.18	
CDM Actual	6,320	LF	15.625	SF			98,750	CF	3,657.41	CY	4,937.50	tons	246.88	tons	5,185.00	tons	$30.50	$158,142.50	$10,279.26	$24,265.80	$192,687.56	

Bids	Length	Unit	Cross Section 5'x2.5'x10	Unit	3.0'x3.0'x12	Unit	Volume	Unit	Volume	Unit	Volume	Unit	5% Waste	Unit	Rounded Total	Unit	Current Prices * Unit Price	Subtotal	Tax	Freight	Total	Notes
CDM BAFO	6,195	LF			22.5	SF	139,388	CF	5,162.50	CY	6,969.38	tons	348.47	tons	7,318.00	tons	$43.50	$318,334.39	$20,691.74	$42,078.50	$381,104.62	
CDM Actual	6,320	LF	15.625	SF			98,750	CF	3,657.41	CY	4,937.50	tons	246.88	tons	5,185.00	tons	$43.50	$225,548.48	$14,660.65	$29,813.75	$270,022.88	

* Based on quotes from Brenda Purvis of Conrad Yelvington per 08/23/06 telephone conversation.

12-oz/sy Geotextile (Nonwoven Filter Fabric) Calculations

Seepage Collection Drains

Bids	Length	Unit	Circumference	Unit	Area	Unit	Area	Unit	Roll	Unit	# of Rolls	5% Waste	Total # of Rolls	Whole Rolls	Area	Unit	Fall 2004 Prices * Unit Price	Subtotal	Tax	Freight	Total	Notes
CDM BAFO	6,195	LF	30	LF	185,850	SF	20,650.00	SY	800.00	SY	25.81	1.29	27.10	28	22,400	SY	$0.80	$17,920.00	$1,254.40	$1,192.52	$20,366.92	
CDM Actual	6,320	LF	30	LF	189,600	SF	21,066.67	SY	800.00	SY	26.33	1.32	27.65	28	22,400	SY	$0.80	$17,920.00	$1,254.40	$1,192.52	$20,366.92	

Bids	Length	Unit	Circumference	Unit	Area	Unit	Area	Unit	Roll	Unit	# of Rolls	5% Waste	Total # of Rolls	Whole Rolls	Area	Unit	Current Prices * Unit Price	Subtotal	Tax	Freight	Total	Notes
CDM BAFO	6,195	LF	30	LF	185,850	SF	20,650.00	SY	800.00	SY	25.81	1.29	27.10	28	22,400	SY	$0.95	$21,280.00	$1,489.60	$1,348.20	$24,117.80	
CDM Actual	6,320	LF	30	LF	189,600	SF	21,066.67	SY	800.00	SY	26.33	1.32	27.65	28	22,400	SY	$0.95	$21,280.00	$1,489.60	$1,348.20	$24,117.80	

Notes

***** Based on quotes from Brent Beckham of Engineered Synthetic Products/SKAPS Industries per 08/28/06 telephone conversation.

HDPE Pipe Calculations
Seepage Collection Drains

Bids	Quantity	5% Waste+	Rounded Total+	Unit	Fall 2004 Prices * Unit Price	Subtotal	Tax	Freight	Total	Notes
CDM BAFO (6,195 LF)										
Seepage Collection Drains										
6"Φ Corr. P34 Pipe	6,195	310	6,600	LF	$2.03	$13,365.00	$935.55	$0.00	$14,300.55	
6" Corr. Slpt Coupling	62	4	66	EA	$1.26	$83.16	$5.82	$0.00	$88.98	
12"Φ HDPE SDR 17 Header Pipe	6,195	310	6,550	LF	$6.18	$40,479.00	$2,833.53	$0.00	$43,312.53	
Drain Collector to Header	31	2	33	EA	$200.00	$6,600.00	$462.00	$0.00	$7,062.00	
2x108x0.010 Pipe Wrap	124	7	131	EA	$3.74	$489.29	$34.25	$94.32	$617.85	
Subtotal									$65,381.92	
Header Pipe										
12"Φ HDPE SDR 17 Pipe	0	0	0	LF	$6.18	$0.00	$0.00	$0.00	$0.00	
Subtotal									$0.00	
Connector and Outlet Pipes										
12"Φ HDPE SDR 17 Connector Pipe	780	39	850	LF	$6.18	$5,253.00	$367.71	$0.00	$5,620.71	
12"Φ HDPE SDR 17 Fab Tee	1	0	1	EA	$91.68	$91.68	$6.42	$0.00	$98.09	
Subtotal									$5,718.80	
Seven (7) Cleanouts										
6"Φ HDPE SDR 17 Pipe	1,288	65	1,360	LF	$1.75	$2,373.20	$166.12	$0.00	$2,539.32	
6"Φ 6° HDPE SDR 17 Fab Ell	12	1	13	EA	$22.75	$295.75	$20.70	$0.00	$316.45	
6"Φ 45° HDPE SDR 17 Fab Ell	4	0	4	EA	$20.50	$82.00	$5.74	$0.00	$87.74	
6"Φ HDPE SDR 17 Fab 45° Wye	12	1	13	EA	$46.75	$607.75	$42.54	$0.00	$650.29	
6"Φ HDPE SDR 17 Screwed Plug	28	2	30	EA	$22.90	$686.85	$48.08	$0.00	$734.93	
12"x6" HDPE SDR 17 Fab Reducer	2	0	2	EA	$128.12	$256.24	$17.94	$0.00	$274.18	
12"x6" HDPE SDR 17 Fab 45° Wye	12	1	13	EA	$438.67	$5,702.65	$399.19	$0.00	$6,101.83	
Subtotal									$10,704.75	
Total									$81,805.46	

Bids	Quantity	5% Waste+	Rounded Total+	Unit	Current Prices * Unit Price	Subtotal	Tax	Freight	Total	Notes
CDM Actual (6,320 LF)										
Seepage Collection Drains										
6"Φ Corr. P34 Pipe	6,320	316	6,700	LF	$4.87	$32,629.00	$2,284.03	$0.00	$34,913.03	
6" Corr. Slpt Coupling	255	13	268	EA	$2.52	$675.36	$47.28	$0.00	$722.64	
6"Φ HDPE SDR 32.5 DC-H Pipe	128	6	160	LF	$2.07	$330.53	$23.14	$75.36	$429.03	
12"Φ HDPE SDR 21 Header Pipe	6,320	316	6,650	LF	$8.50	$56,546.28	$3,958.24	$3,390.20	$63,894.72	
~~24"Φ HDPE SDR 17 Riser Sump~~	~~1~~	~~0~~	~~1~~	~~EA~~	~~$0.00~~	~~$0.00~~	~~$0.00~~	~~$0.00~~	~~$0.00~~	~~In CO 18R~~
Drain Collector to Header	32	3	35	EA	$534.75	$18,181.50	$1,272.71	$0.00	$19,454.21	
316 SS Worm Gear Clamps	894	45	939	EA	$2.69	$2,525.91	$176.81	$0.00	$2,702.72	
2x108x0.010 Pipe Wrap	383	20	403	EA	$6.50	$2,619.50	$183.37	$290.16	$3,093.03	
Subtotal									$125,209.36	
Header and Culvert Pipes										
12"Φ HDPE SDR 17 Header Pipe	180	9	200	LF	$0.00	$0.00	$0.00	$0.00	$0.00	In CO 18R
12"Φ HDPE SDR 21 Culvert Pipe	82	4	100	LF	$0.00	$0.00	$0.00	$0.00	$0.00	In CO 18R
12"Φ HDPE SDR 17 Fab 15° Ell	1	0	1	EA	$125.71	$125.71	$8.80	$0.00	$134.51	
24"Φ HDPE SDR 17 Riser Sump	1	0	1	EA	$3,672.57	$3,672.57	$257.08	$0.00	$3,929.65	
Subtotal									$4,064.16	
Connector and Outlet Pipes										
12"Φ HDPE SDR 21 Connector Pipe	770	39	850	LF	$0.00	$0.00	$0.00	$0.00	$0.00	In CO 18R
12"Φ HDPE SDR 17 Fab Tee	1	0	1	EA	$183.35	$183.35	$12.83	$0.00	$196.18	
Subtotal									$196.18	
Seven (7) Cleanouts										
6"Φ HDPE SDR 17 Pipe	340	17	360	LF	$3.49	$1,256.40	$87.95	$0.00	$1,344.35	**
6"Φ HDPE SDR 21 Pipe	1,210	61	1,280	LF	$2.56	$3,275.52	$229.29	$602.90	$4,107.70	**
6"Φ HDPE SDR 32.5 Bollard Pipes	448	22	480	LF	$2.07	$991.58	$69.41	$226.09	$1,287.08	
6"Φ HDPE SDR 32.5 CO Pipes	28	1	40	LF	$2.07	$82.63	$5.78	$18.84	$107.26	
6" Corr. Slpt Coupling	28	2	30	EA	$2.52	$75.60	$5.29	$0.00	$80.89	
6"Φ HDPE SDR 17 Fab 6° Ell	2	0	2	EA	$45.50	$91.00	$6.37	$0.00	$97.37	
6"Φ HDPE SDR 17 Fab 6° Ell	10	0	10	EA	$69.71	$697.10	$48.80	$0.00	$745.90	
6"Φ HDPE SDR 17 Fab 45° Ell	6	0	6	EA	$72.80	$436.80	$30.58	$0.00	$467.38	
6"Φ HDPE SDR 17 Fab 45° Wye	2	0	2	EA	$93.50	$187.00	$13.09	$0.00	$200.09	
6"Φ HDPE SDR 17 Fab 45° Wye	8	0	8	EA	$125.67	$1,005.36	$70.38	$0.00	$1,075.74	
6"Φ HDPE SDR 17 Screwed Plug	28	0	28	EA	$82.84	$2,319.52	$162.37	$0.00	$2,481.89	
6"Φ HDPE SDR 17 Screwed Plug	0	2	2	EA	$45.79	$91.58	$6.41	$0.00	$97.99	
12"x6" HDPE SDR 17 Fab Reducer	2	0	2	EA	$449.87	$899.74	$62.98	$0.00	$962.72	
12"x6" HDPE SDR 17 Fab 45° Wye	2	0	2	EA	$877.33	$1,754.66	$122.83	$0.00	$1,877.49	
12"x6" HDPE SDR 17 Fab 45° Wye	10	0	10	EA	$696.13	$6,961.30	$487.29	$0.00	$7,448.59	
316 SS Worm Gear Clamps	168	9	177	EA	$2.69	$476.13	$33.33	$0.00	$509.46	
2x108x0.010 Pipe Wrap	21	2	23	EA	$6.50	$149.50	$10.47	$16.56	$176.53	
Concrete for Bollards	3.26	0.98	4.50	CY	$100.00	$450.00	$31.50	$0.00	$481.50	
4"x 7'x4' Concrete Apron w/ WWF	4.84	1.45	6.50	CY	$150.00	$975.00	$68.25	$0.00	$1,043.25	
Double Headed Nails	1	0	1	Box	$13.00	$13.00	$0.91	$0.00	$13.91	
2"x4"x12' Lumber for Concrete Apron	308	16	324	LF	$0.31	$100.71	$7.05	$0.00	$107.76	
Subtotal									$24,714.83	
Total									$154,184.54	

Notes

+ At least 5% waste was included. Both waste and rounded totals were increased to next highest increment for 100 LF rolls of 6" Φ corrugated pipe, 40 LF sticks of 6" Φ HDPE pipe, and 50 LF sticks of HDPE pipe above 6" Φ.

***** Based on quote from Mark Vanvaerenbergh of ISCO Pipe per 08/24/06 telephone conversation.

****** Includes 352 LF of SDR 32.5 HDPE pipe meant for bollards. Vendor had limited supply of SDR 32.5 HDPE Pipe.

Seepage Collection Drains

Bids	Quantity	5% or 30% Waste+	Rounded Total+	Unit	Fall 2004 Prices * Unit Price	Subtotal	Tax	Freight	Total	Notes
CDM BAFO										
Type E Precast Inlet - East Ditch	1	0	1	EA	$800.00	$800.00	$56.00	$0.00	$856.00	
12"Φ SDR 17 HDPE Pipe	270	14	300	LF	$6.18	$1,854.00	$129.78	$0.00	$1,983.78	
Subtotal									**$2,839.78**	
Type E Precast Inlet - West Ditch	1	0	1	EA	$800.00	$800.00	$56.00	$0.00	$856.00	
12"Φ SDR 17 HDPE Pipe	270	14	300	LF	$6.18	$1,854.00	$129.78	$0.00	$1,983.78	
Subtotal									**$2,839.78**	
Type E Precast Inlet - West Ditch	1	0	1	EA	$800.00	$800.00	$56.00	$0.00	$856.00	
12"Φ SDR 17 HDPE Pipe	270	14	300	LF	$6.18	$1,854.00	$129.78	$0.00	$1,983.78	
Subtotal									**$2,839.78**	
Total									**$8,519.34**	

Bids	Quantity	5% or 30% Waste+	Rounded Total+	Unit	Current Prices * Unit Price	Subtotal	Tax	Freight	Total	Notes
CDM Actual										
48" Φ Manhole no 1 w/ Blind Flange	1	0	1	EA	$14,021.87	$14,021.87	$981.53	$0.00	$15,003.40	
3 SS BF Valves, SS Check Valve, 3 SS SE	1	0	1	LS	$14,321.99	$14,321.99	$1,002.54	$0.00	$15,324.53	
6"Φ HDPE SDR 32.5 Bollard Pipes	30	2	40	LF	$2.07	$82.63	$5.78	$18.84	$107.26	
12"Φ SDR 17 Full Faced Flanged Spool	1	0	1	EA	$1,142.87	$1,142.87	$80.00	$0.00	$1,222.87	
Concrete for Bollards	0.24	0.07	0.50	CY	$100.00	$50.00	$3.50	$0.00	$53.50	
3/8" Alabama Buff Gravel	1.41	0.07	1.50	tons	$43.50	$65.25	$4.24	$8.63	$78.12	
Subtotal									**$31,789.67**	
36" Φ Manhole no 2 w/ Blind Flange	1	0	1	EA	$7,732.96	$7,732.96	$541.31	$0.00	$8,274.27	
6"Φ HDPE SDR 32.5 Bollard Pipes	30	2	40	LF	$2.07	$82.63	$5.78	$18.84	$107.26	
Concrete for Bollards	0.24	0.07	0.50	CY	$100.00	$50.00	$3.50	$0.00	$53.50	
3/8" Alabama Buff Gravel	1.08	0.05	1.25	tons	$43.50	$54.38	$3.53	$7.19	$65.10	
Subtotal									**$8,500.12**	
Riprap Apron	168.30	58.91	228.00	tons	$75.00	$17,100.00	$1,197.00	$0.00	$18,297.00	
#57 Limestone for Riprap Apron	6.93	0.69	8.00	tons	$28.50	$228.00	$14.82	$46.00	$288.82	
12-oz/sy Geotextile	142	7	150	SY	$0.95	$142.50	$9.98	$9.03	$161.51	
6"Φ HDPE SDR 32.5 Bollard Pipes	82.5	4	120	LF	$2.07	$247.90	$17.35	$56.52	$321.77	
Concrete for Bollards	0.66	0.20	1.00	CY	$100.00	$100.00	$7.00	$0.00	$107.00	
Subtotal									**$19,176.10**	
Type C Precast Inlet Structure no 1	1	0	1	EA	$595.17	$595.17	$41.66	$0.00	$636.83	
18"Φ HDPE SDR 17 Outlet Pipe	95	5	100	LF	$20.39	$2,039.01	$142.73	$0.00	$2,181.74	
Sand	1.57	0.08	1.75	ton	$23.00	$40.25	$2.62	$10.06	$52.93	
12 -oz/sy Geotextile	4	0.20	4.50	SY	$0.95	$4.28	$0.30	$0.27	$4.85	
Panel Drains	500	25	525	LF	$4.84	$2,541.00	$177.87	$0.00	$2,718.87	
Panel Drain End Outlet	1	0	1	EA	$34.28	$34.28	$2.40	$0.00	$36.68	
Panel Drain Coupler	4	0	4	EA	$22.85	$91.40	$6.40	$0.00	$97.80	
PD Coupling Pins	8	1	9	EA	$2.56	$23.04	$1.61	$0.00	$24.65	
2x108x0.010 Pipe Wrap	3	1	4	EA	$6.50	$26.00	$1.82	$2.88	$30.70	
Concrete Apron w/ WWF Reinf.	1.63	0.49	2.25	CY	$150.00	$337.50	$23.63	$0.00	$361.13	
2"x4"x12' Lumber for Concrete Apron	44	2	48	LF	$0.31	$14.92	$1.04	$0.00	$15.96	
Subtotal									**$6,162.14**	
Valve Box w/ Blind Flg	1	0	1	EA	$2,840.00	$2,840.00	$198.80	$0.00	$3,038.80	
6"Φ HDPE SDR 32.5 Bollard Pipes	32	2	40	LF	$2.07	$82.63	$5.78	$18.84	$107.26	
18"Φ SS Gate Valve	1	0	1	EA	$10,032.05	$10,032.05	$702.24	$139.13	$10,873.42	
18"Φ SDR 11 HDPE BF Flg Adpt	2	0	2	EA	$240.78	$481.56	$33.71	$0.00	$515.27	
18 150# 316 IPS SS BU FLG F/HDPE	2	0	2	EA	$853.48	$1,706.95	$119.49	$0.00	$1,826.44	
18"Φ 150# BNG 316 SS/Neo FF Gskt	32	0	32	EA	$36.00	$1,152.00	$80.64	$51.33	$1,283.97	
3/8" Alabama Buff Gravel	65.14	3.26	68.50	tons	$43.50	$2,979.76	$193.68	$393.88	$3,567.32	
Concrete for Bollards	0.26	0.08	0.50	CY	$100.00	$50.00	$3.50	$0.00	$53.50	
Subtotal									**$21,265.98**	
Type C Precast Inlet Structure no 2	1	0	1	EA	$595.17	$595.17	$41.66	$0.00	$636.83	
12"Φ HDPE SDR 17 Outlet Pipe	52	3	100	LF	$11.37	$1,137.35	$79.61	$0.00	$1,216.97	
12"Φ 20 LF SDR 17 Pipe w/ Seep Shields	1	0	1	EA	$2,285.00	$2,285.00	$159.95	$0.00	$2,444.95	
Sand	2.50	0.13	2.75	ton	$23.00	$63.25	$4.11	$15.81	$83.17	
12 -oz/sy Geotextile	4	0.20	4.50	SY	$0.95	$4.28	$0.30	$0.27	$4.85	
Panel Drains	400	20	420	LF	$4.84	$2,032.80	$142.30	$0.00	$2,175.10	
Panel Drain End Outlet	1	0	1	EA	$34.28	$34.28	$2.40	$0.00	$36.68	
Panel Drain Coupler	2	0	2	EA	$22.85	$45.70	$3.20	$0.00	$48.90	
PD Coupling Pins	4	1	5	EA	$2.56	$12.80	$0.90	$0.00	$13.70	
2x108x0.010 Pipe Wrap	2	1	3	EA	$6.50	$19.50	$1.37	$2.16	$23.03	
Concrete Apron w/ WWF Reinf.	2.50	0.75	3.25	CY	$150.00	$487.50	$34.13	$0.00	$521.63	
2"x4"x12' Lumber for Concrete Apron	44	2	48	LF	$0.31	$14.92	$1.04	$0.00	$15.96	

Riprap Apron	116.00	40.60	160.00	tons	$75.00	$12,000.00	$840.00	$0.00	$12,840.00	
#57 Limestone for Riprap Apron	4.76	0.24	5.00	tons	$28.50	$142.50	$9.26	$28.75	$180.51	
12-oz/sy Geotextile	102	5	110	SY	$0.95	$104.50	$7.32	$6.62	$118.44	
Subtotal									**$20,360.70**	
Type C Precast Inlet Structure no 3	1	0	1	EA	$595.17	$595.17	$41.66	$0.00	$636.83	
12"Φ HDPE SDR 17 Outlet Pipe	60	3	100	LF	$11.37	$1,137.35	$79.61	$0.00	$1,216.97	
12"Φ 20 LF SDR 17 Pipe w/ Seep Shields	1	0	1	EA	$2,285.00	$2,285.00	$159.95	$0.00	$2,444.95	
Sand	2.50	0.13	2.75	ton	$23.00	$63.25	$4.11	$15.81	$83.17	
12 -oz/sy Geotextile	4	0.20	4.50	SY	$0.95	$4.28	$0.30	$0.27	$4.85	
Panel Drains	400	20	420	LF	$4.84	$2,032.80	$142.30	$0.00	$2,175.10	
Panel Drain End Outlet	1	0	1	EA	$34.28	$34.28	$2.40	$0.00	$36.68	
Panel Drain Coupler	2	0	2	EA	$22.85	$45.70	$3.20	$0.00	$48.90	
PD Coupling Pins	4	1	5	EA	$2.56	$12.80	$0.90	$0.00	$13.70	
2x108x0.010 Pipe Wrap	2	1	3	EA	$6.50	$19.50	$1.37	$2.16	$23.03	
Concrete Apron w/ WWF Reinf.	2.50	0.75	3.25	CY	$150.00	$487.50	$34.13	$0.00	$521.63	
2"x4"x12' Lumber for Concrete Apron	44	2	48	LF	$0.31	$14.92	$1.04	$0.00	$15.96	
Riprap Apron	82.50	28.88	112.00	tons	$75.00	$8,400.00	$588.00	$0.00	$8,988.00	
#57 Limestone for Riprap Apron	3.40	0.17	4.00	tons	$28.50	$114.00	$7.41	$23.00	$144.41	
12-oz/sy Geotextile	76	4	80	SY	$0.95	$76.00	$5.32	$4.82	$86.14	
Subtotal									**$16,440.30**	
Type C Precast Inlet Structure no 4	1	0	1	EA	$595.17	$595.17	$41.66	$0.00	$636.83	
12"Φ HDPE SDR 17 Outlet Pipe	52	3	100	LF	$11.37	$1,137.35	$79.61	$0.00	$1,216.97	
12"Φ 20 LF SDR 17 Pipe w/ Seep Shields	1	0	1	EA	$2,285.00	$2,285.00	$159.95	$0.00	$2,444.95	
Sand	2.50	0.13	2.75	ton	$23.00	$63.25	$4.11	$15.81	$83.17	
12 -oz/sy Geotextile	4	0.20	4.50	SY	$0.95	$4.28	$0.30	$0.27	$4.85	
Panel Drains	400	20	420	LF	$4.84	$2,032.80	$142.30	$0.00	$2,175.10	
Panel Drain End Outlet	1	0	1	EA	$34.28	$34.28	$2.40	$0.00	$36.68	
Panel Drain Coupler	2	0	2	EA	$22.85	$45.70	$3.20	$0.00	$48.90	
PD Coupling Pins	4	1	5	EA	$2.56	$12.80	$0.90	$0.00	$13.70	
2x108x0.010 Pipe Wrap	2	1	3	EA	$6.50	$19.50	$1.37	$2.16	$23.03	
Concrete Apron w/ WWF Reinf.	2.50	0.75	3.25	CY	$150.00	$487.50	$34.13	$0.00	$521.63	
2"x4"x12' Lumber for Concrete Apron	44	2	48	LF	$0.31	$14.92	$1.04	$0.00	$15.96	
Riprap Apron	82.50	28.88	112.00	tons	$75.00	$8,400.00	$588.00	$0.00	$8,988.00	
#57 Limestone for Riprap Apron	3.40	0.17	4.00	tons	$28.50	$114.00	$7.41	$23.00	$144.41	
12-oz/sy Geotextile	76	4	80	SY	$0.95	$76.00	$5.32	$4.82	$86.14	
Subtotal									**$16,440.30**	
Type C Precast Inlet Structure no 5	1	0	1	EA	$595.17	$595.17	$41.66	$0.00	$636.83	
12"Φ HDPE SDR 17 Outlet Pipe	49	3	50	LF	$11.37	$568.68	$39.81	$0.00	$608.48	
12"Φ 20 LF SDR 17 Pipe w/ Seep Shields	1	0	1	EA	$2,285.00	$2,285.00	$159.95	$0.00	$2,444.95	
Sand	2.50	0.13	2.75	ton	$23.00	$63.25	$4.11	$15.81	$83.17	
12 -oz/sy Geotextile	4	0.20	4.50	SY	$0.95	$4.28	$0.30	$0.27	$4.85	
Panel Drains	400	20	420	LF	$4.84	$2,032.80	$142.30	$0.00	$2,175.10	
Panel Drain End Outlet	1	0	1	EA	$34.28	$34.28	$2.40	$0.00	$36.68	
Panel Drain Coupler	2	0	2	EA	$22.85	$45.70	$3.20	$0.00	$48.90	
PD Coupling Pins	4	1	5	EA	$2.56	$12.80	$0.90	$0.00	$13.70	
2x108x0.010 Pipe Wrap	2	1	3	EA	$6.50	$19.50	$1.37	$2.16	$23.03	
Concrete Apron w/ WWF Reinf.	2.50	0.75	3.25	CY	$150.00	$487.50	$34.13	$0.00	$521.63	
2"x4"x12' Lumber for Concrete Apron	44	2	48	LF	$0.31	$14.92	$1.04	$0.00	$15.96	
Riprap Apron	82.50	28.88	112.00	tons	$75.00	$8,400.00	$588.00	$0.00	$8,988.00	
#57 Limestone for Riprap Apron	3.40	0.17	4.00	tons	$28.50	$114.00	$7.41	$23.00	$144.41	
12-oz/sy Geotextile	76	4	80	SY	$0.95	$76.00	$5.32	$4.82	$86.14	
Subtotal									**$15,831.81**	
48" Φ Drain Manhole/Sump w/ Blind Flange	1	0	1	EA	$9,139.06	$9,139.06	$639.73	$0.00	$9,778.79	
6"Φ HDPE SDR 32.5 Bollard Pipes	30	2	40	LF	$2.07	$82.63	$5.78	$18.84	$107.26	
12"Φ HDPE SDR 17 Outlet Pipe	55	3	50	LF	$11.37	$568.68	$39.81	$0.00	$608.48	
12"Φ HDPE SDR 17 Fab Tee	1	0	1	EA	$218.40	$218.40	$15.29	$0.00	$233.69	
Concrete for Bollards	0.24	0.07	0.50	CY	$100.00	$50.00	$3.50	$0.00	$53.50	
3/8" Alabama Buff Gravel	1.41	0.07	1.50	tons	$43.50	$65.25	$4.24	$8.63	$78.12	
Subtotal									**$10,859.84**	
Total									**$166,826.96**	

Notes

\+ Unless otherwise noted, at least 5% waste was included. Both waste and rounded totals were increased to next highest increment for 100 LF rolls of 6" Φ corrugated pipe, 40 LF sticks of 6" Φ HDPE pipe, and 50 LF sticks of HDPE pipe above 6" Φ.

++ At least 30% waste was used for riprap.

* Based on quote from Mark Vanvaerenbergh of ISCO Industries per 08/24/06 telephone conversation.

** 6" Φ SDR 32.5 pipe was no longer left in stock after purchasing 40 LF of pipe. 6" Φ SDR 17 pipe was substituted after approval was granted by Engineer (Ardaman).

Miscellaneous Materials Calculations

Seepage Collection Drains

Bids	Quantity	5% Waste	Rounded Total	Unit	Fall 2004 Prices					Notes
					Unit Price	Subtotal	Tax	Freight	Total	
CDM BAFO (6,195 LF)										
Polypropylene White Thread	30	2	32	LB	$14.00	$448.00	$31.36	$15.67	$495.03	
Total									**$495.03**	

Bids	Quantity	5% Waste	Rounded Total	Unit	Current Prices					Notes
					Unit Price	Subtotal	Tax	Freight	Total	
CDM Actual (6,320 LF)										
Polypropylene White Thread	30	2	32	LB	$14.00	$448.00	$31.36	$15.67	$495.03	
10'x100' 4-ml Black Poly Sheeting	0	0	0	Roll	$33.35	$0.00	$0.00	$0.00	$0.00	
Total									**$495.03**	

Notes

* Based on quotes from Lance Gunter of Frischkorn Piping per 09/11/06 telephone conversation.

Installation and Earthwork
Seepage Collection Drains

Bids	Quantity	Unit	Fall 2004 Prices				Notes
			Unit Price	Subtotal	Cont	Total	
CDM BAFO							
Drains Installation							
Survey/Trench Excavation/Drain	1	LS	$260,364.91	$260,364.91	$0.00	$260,364.91	
Subtotal						**$260,364.91**	
Total						**$260,364.91**	

Bids	Quantity	Unit	Current Prices				Notes
			Unit Price	Subtotal	Cont	Total	
CDM Actual							
Drains Installation							
Seepage Collection Drain Survey	1	LS	$23,311.77	$23,311.77	$2,331.18	$25,642.95	
CDM Equipment Rental	6,320	LF	$16.41	$103,733.07	$10,373.31	$114,106.38	
Rough Grade	6,320	LF	$0.00	$0.00	$0.00	$0.00	
CDM Labor	6,320	LF	$22.98	$145,203.00	$14,520.30	$159,723.30	
Water Truck Supplied Dust Control	1	LS	$0.00	$0.00	$0.00	$0.00	
Subtotal						**$299,472.62**	
Header and Culvert Pipes Installation							
12"Φ Culvert Pipe	82	LF	$0.00	$0.00	$0.00	$0.00	
Remove/Replace Pipes @ Culvert	3	EA	$0.00	$0.00	$0.00	$0.00	
Subtotal						**$0.00**	
Connector and Outlet Pipes Installation							
12"Φ Outlet Pipe	380	LF	$0.00	$0.00	$0.00	$0.00	
12"Φ Outlet Pipe	403	LF	$0.00	$0.00	$0.00	$0.00	
Subtotal						**$0.00**	
Seven (7) Cleanouts Installation							
Seepage Collection Drain Cleanouts	1	LS	$0.00	$0.00	$0.00	$0.00	
Concrete Aprons	14	EA	$0.00	$0.00	$0.00	$0.00	
Bollards	14	set	$0.00	$0.00	$0.00	$0.00	
Subtotal						**$0.00**	
Total						**$299,472.62**	
Structures Above Liner Installation							
Manhole no 1 and Manhole no 2	1	LS	$0.00	$0.00	$0.00	$0.00	
Bollards	2	set	$0.00	$0.00	$0.00	$0.00	
Riprap Apron	1.00	EA	$0.00	$0.00	$0.00	$0.00	In CO 18R
Bollards	1	set	$0.00	$0.00	$0.00	$0.00	
Subtotal						**$0.00**	
Type C Precast Inlet Structure no 1	1	EA	$0.00	$0.00	$0.00	$0.00	
18"Φ Outlet Pipe	100	LF	$0.00	$0.00	$0.00	$0.00	
Tie-in @ Existing Outfall 001	1	EA	$0.00	$0.00	$0.00	$0.00	
Concrete Apron	1	EA	$0.00	$0.00	$0.00	$0.00	
Panel Drain Installation	500	LF	$0.00	$0.00	$0.00	$0.00	In CO 18R
Valve Box w/ Blind Flg	1	EA	$0.00	$0.00	$0.00	$0.00	
Bollards	1	set	$0.00	$0.00	$0.00	$0.00	
Type C Precast Inlet Structure no 2	1	EA	$0.00	$0.00	$0.00	$0.00	
12"Φ Outlet Pipe w/ Seep Shields	72	LF	$0.00	$0.00	$0.00	$0.00	
Concrete Apron	1	EA	$0.00	$0.00	$0.00	$0.00	
Riprap Apron	1	EA	$0.00	$0.00	$0.00	$0.00	In CO 18R
Panel Drain Installation	400	LF	$0.00	$0.00	$0.00	$0.00	In CO 18R
Type C Precast Inlet Structure no 3	1	EA	$0.00	$0.00	$0.00	$0.00	
12"Φ Outlet Pipe w/ Seep Shields	80	LF	$0.00	$0.00	$0.00	$0.00	
Concrete Apron	1	EA	$0.00	$0.00	$0.00	$0.00	
Riprap Apron	1	EA	$0.00	$0.00	$0.00	$0.00	In CO 18R
Panel Drain Installation	400	LF	$0.00	$0.00	$0.00	$0.00	In CO 18R
Subtotal						**$0.00**	
Type C Precast Inlet Structure no 4	1	EA	$0.00	$0.00	$0.00	$0.00	
12"Φ Outlet Pipe w/ Seep Shields	72	LF	$0.00	$0.00	$0.00	$0.00	
Concrete Apron	1	EA	$0.00	$0.00	$0.00	$0.00	
Riprap Apron	1	EA	$0.00	$0.00	$0.00	$0.00	In CO 18R
Panel Drain Installation	400	LF	$0.00	$0.00	$0.00	$0.00	In CO 18R
Type C Precast Inlet Structure no 5	1	EA	$0.00	$0.00	$0.00	$0.00	
12"Φ Outlet Pipe w/ Seep Shields	69	LF	$0.00	$0.00	$0.00	$0.00	
Concrete Apron	1	EA	$0.00	$0.00	$0.00	$0.00	
Riprap Apron	1	EA	$0.00	$0.00	$0.00	$0.00	In CO 18R
Panel Drain Installation	400	LF	$0.00	$0.00	$0.00	$0.00	In CO 18R
48"Φ Drain Manhole/Sump w/ Blind Flange	1	EA	$0.00	$0.00	$0.00	$0.00	

12"Φ Outlet Pipe	60	LF	$0.00	$0.00	$0.00	$0.00	
Bollards	1	set	$0.00	$0.00	$0.00	$0.00	
Subtotal						**$0.00**	
Total						**$0.00**	
Comanco Actual							
Drains Installation							
Mobilization	1	LS	$0.00	$0.00	$0.00	$0.00	
Seepage Collection Drain	6,470	LF	$0.00	$0.00	$0.00	$0.00	
24"Φ Riser Sump	2	EA	$0.00	$0.00	$0.00	$0.00	
Subtotal						**$0.00**	
Header and Culvert Pipes Installation							
12"Φ Culvert Pipe	82	LF	$0.00	$0.00	$0.00	$0.00	In CO 18R
Remove/Replace Pipes @ Culvert	3	EA	$0.00	$0.00	$0.00	$0.00	In CO 18R
Subtotal						**$0.00**	
Connector and Outlet Pipes Installation							
12"Φ Outlet Pipe	380	LF	$0.00	$0.00	$0.00	$0.00	In CO 18R
12"Φ Outlet Pipe	403	LF	$0.00	$0.00	$0.00	$0.00	In CO 18R
Subtotal						**$0.00**	
Seven (7) Cleanouts Installation							
Seepage Collection Drain Cleanouts	1	LS	$14,375.00	$14,375.00	$0.00	$14,375.00	
Concrete Aprons	14	EA	$0.00	$0.00	$0.00	$0.00	
Bollards	14	set	$0.00	$0.00	$0.00	$0.00	
Subtotal						**$14,375.00**	
Total						**$14,375.00**	
Structures Above Liner Installation							
Manhole no 1 and Manhole no 2	1	LS	$0.00	$0.00	$0.00	$0.00	In CO 18R
Bollards	2	set	$0.00	$0.00	$0.00	$0.00	
Riprap Apron	1	EA	$0.00	$0.00	$0.00	$0.00	
Bollards	1	set	$0.00	$0.00	$0.00	$0.00	
Subtotal						**$0.00**	
Type C Precast Inlet Structure no 1	1	EA	$0.00	$0.00	$0.00	$0.00	In CO 18R
18"Φ Outlet Pipe	100	LF	$0.00	$0.00	$0.00	$0.00	In CO 18R
Tie-in @ Existing Outfall 001	1	EA	$0.00	$0.00	$0.00	$0.00	In CO 18R
Concrete Apron	1	EA	$0.00	$0.00	$0.00	$0.00	
Panel Drain Installation	500	LF	$0.00	$0.00	$0.00	$0.00	
Valve Box w/ Blind Flg	1	EA	$0.00	$0.00	$0.00	$0.00	In CO 18R
Bollards	1	set	$0.00	$0.00	$0.00	$0.00	
Type C Precast Inlet Structure no 2	1	EA	$0.00	$0.00	$0.00	$0.00	
12"Φ Outlet Pipe w/ Seep Shields	72	LF	$0.00	$0.00	$0.00	$0.00	
Concrete Apron	1	EA	$0.00	$0.00	$0.00	$0.00	
Riprap Apron	1	EA	$0.00	$0.00	$0.00	$0.00	
Panel Drain Installation	400	LF	$0.00	$0.00	$0.00	$0.00	
Type C Precast Inlet Structure no 3	1	EA	$0.00	$0.00	$0.00	$0.00	
12"Φ Outlet Pipe w/ Seep Shields	80	LF	$0.00	$0.00	$0.00	$0.00	
Concrete Apron	1	EA	$0.00	$0.00	$0.00	$0.00	
Riprap Apron	1	EA	$0.00	$0.00	$0.00	$0.00	
Panel Drain Installation	400	LF	$0.00	$0.00	$0.00	$0.00	
Subtotal						**$0.00**	
Type C Precast Inlet Structure no 4	1	EA	$0.00	$0.00	$0.00	$0.00	
12"Φ Outlet Pipe w/ Seep Shields	72	LF	$0.00	$0.00	$0.00	$0.00	
Concrete Apron	1	EA	$0.00	$0.00	$0.00	$0.00	
Riprap Apron	1	EA	$0.00	$0.00	$0.00	$0.00	
Panel Drain Installation	400	LF	$0.00	$0.00	$0.00	$0.00	
Type C Precast Inlet Structure no 5	1	EA	$0.00	$0.00	$0.00	$0.00	
12"Φ Outlet Pipe w/ Seep Shields	69	LF	$0.00	$0.00	$0.00	$0.00	
Concrete Apron	1	EA	$0.00	$0.00	$0.00	$0.00	
Riprap Apron	1	EA	$0.00	$0.00	$0.00	$0.00	
Panel Drain Installation	400	LF	$0.00	$0.00	$0.00	$0.00	
48"Φ Drain Manhole/Sump	1	EA	$0.00	$0.00	$0.00	$0.00	In CO 18R
12"Φ Outlet Pipe	60	LF	$0.00	$0.00	$0.00	$0.00	In CO 18R
Bollards	1	set	$0.00	$0.00	$0.00	$0.00	
Subtotal						**$0.00**	
Total						**$0.00**	

Notes

Edgemon Survey Estimates

Seepage Collection and Relief Drains

Bids	Quantity	Unit	Current Prices						Notes
			Unit Price	Subtotal	Tax	Freight	Overhead	Total	
Edgemon Actual									
Slope and Drain Survey									
Two (2) Person GPS Crew	150	Hour	$155.00	$23,250.00	$0.00	$0.00	$0.00	$23,250.00	*
Office/CAD	20	Hour	$70.00	$1,400.00	$0.00	$0.00	$0.00	$1,400.00	**
Stakes	2,500	EA	$0.40	$1,000.00	$70.00	$0.00	$100.00	$1,170.00	
Total								**$25,820.00**	

Per Foot Price 4.10492846

Notes

CDM Equipment Rental

Seepage Collection Drains

Bids	Quantity	Unit	Current Prices					Notes
			Unit Price	Subtotal	Tax	Freight	Total	
CDM Actual								
One Dump Truck Part Time	135.0	Hr	$76.00	$10,260.00	$666.90	$2,750.00	$13,676.90	
Caterpillar D6N Dozer	1.0	M	$11,200.00	$11,200.00	$728.00	$1,105.00	$13,033.00	
Small Line 4" Double Diaphragm Pump	2.3	M	$1,417.50	$3,260.25	$211.92	$0.00	$3,472.17	
Godwin 6" Dri-Prime Pump	2.3	M	$2,835.00	$6,520.50	$423.83	$0.00	$6,944.33	
12" Fusion Machine	2.3	M	$3,810.00	$8,763.00	$569.60	$0.00	$9,332.60	
Gradall 4200	2.3	M	$7,900.00	$18,170.00	$1,181.05	$0.00	$19,351.05	
Caterpillar 970 Wheel Loader	2.3	M	$7,950.00	$18,285.00	$1,188.53	$0.00	$19,473.53	
Rock Box	2.3	M	$1,000.00	$2,300.00	$149.50	$0.00	$2,449.50	
Fuel (Diesel)	6,000	Gal	$2.50	$15,000.00	$0.00	$0.00	$15,000.00	
Lubricants	1	LS	$1,000.00	$1,000.00	$0.00	$0.00	$1,000.00	
Total							**$103,733.07**	

16.4917438

Notes

CDM Labor

Seepage Collection Drains

Bids	Quantity	Unit	Current Prices					Notes
			Unit Price	Subtotal	Burden	Sm Tools	Total	
CDM Actual								
Dump Truck Driver 3 Hours per Day	138.0	Hr	$20.00	$2,760.00	$1,104.00	$138.00	$4,002.00	
Dozer Operator 1/2 month total time	160.0	Hr	$25.00	$4,000.00	$1,600.00	$200.00	$5,800.00	
Small Line 4" Double Diaphragm Pump Labor	92.0	Hr	$18.00	$1,656.00	$662.40	$82.80	$2,401.20	
Godwin 6" Dri-Prime Pump Labor	92.0	Hr	$18.00	$1,656.00	$662.40	$82.80	$2,401.20	
Fusion Machine Operator	506.0	Hr	$25.00	$12,650.00	$5,060.00	$632.50	$18,342.50	
Gradall 4200 operator	506.0	Hr	$25.00	$12,650.00	$5,060.00	$632.50	$18,342.50	
Wheel Loader Operator	506.0	Hr	$20.00	$10,120.00	$4,048.00	$506.00	$14,674.00	
Laborers (2) to Place Fabric, Grade Stone	1,012.0	Hr	$18.00	$18,216.00	$7,286.40	$910.80	$26,413.20	
Laborers (2) Pipe Install in Trench	1,012.0	Hr	$18.00	$18,216.00	$7,286.40	$910.80	$26,413.20	
Laborers (2) Pipe Fusion	1,012.0	Hr	$18.00	$18,216.00	$7,286.40	$910.80	$26,413.20	
Total							**$145,203.00**	

23.0847377

Notes