

CHANGE ORDER FORM
DEP Contract No. SP644
Page 1 of 2

Change Order No.: SP644-009 **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
B1	Addition and corresponding changes to Payment Basis language on Attachment C, Payment and Deliverable Schedule, for Process Water Consumption by Spray Evaporation Systems where SE-4 is revised to reflect a change from 360 to 208 nozzles, SE-7 is revised from 203 to 255 nozzles, SE-9 is removed, and SE-10 is added based on 97 nozzles. Changes are based on concurrence with consumption rates as noted in CDM's attached February 10, 2006 correspondence, and final nozzle counts as constructed for SE-7 and SE-10 and reported by CDM on February 16, 2006.	No Change	No Change	No Change	\$0.00	Yes
C1	Pursuant to paragraph 34 and Attachment C of DEP Contract No. SP644, this Change Order provides a price adjustment based on design changes for the existing OGS-N drain, and the inlet stem wall additions for the OGS-S and OGS-N compartments that were incorporated in the December 16, 2005 construction drawings for the reservoir slope cover to be placed under Task C1 for the OGS-S and OGS-N reservoir compartments. CDM's February 15 proposed price change was reviewed and recommended for approval by Ardaman in its attached February 15 correspondences.	No Change	No Change	No Change	\$52,130.00	Yes

Total Increase or Decrease in Project Costs resulting from this Change Order: \$52,130.00

Ceiling Amount of Contract Impacted? (Yes or No) Yes

Total Impact on Ceiling Amount all Change Orders (SP644-001 to SP644-009) to Date: \$80,176.00

Ceiling Adjustments made by Amendments (-- to --) to Date: \$0.00

Current Ceiling Amount Adjustments Needed: \$80,176.00

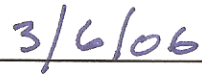
Notes: ¹Activity Reference Code shall conform to the activity code system established in Attachment C. ²Contractor understands that all funding for DEP Contract SP644 is established by authorized funding increment amounts. This Change Order does not increase or decrease the authorized funding increment 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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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 SP644-009) 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):		
 DEP Contract Manager, Bureau of Mine Reclamation:		
Vice President, CDM Constructors Inc.:		

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 SP644-009	7
February 10, 2006 Spray Evaporation Concurrence	February 10, 2006 CDM Spray Evaporation correspondence indicating concurrence with consumption rates.	4
February 15, 2006 CDM OGS-N Change Order Request	CDM's February 15, 2006 Change Order Request as revised per previous recommendations by Ardaman.	4
Ardaman's February 15, 2006 Correspondences	Ardaman's February 15, 2006 review and correspondences that the proposed change is in accordance with the December 16, 2005 design change and that the change order may be approved.	6

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 ⁽⁶⁾
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		\$3,958,663	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.	

Task A, Total Lump Sum: \$10,528,341

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	\$ 7,624,007	\$ 10.70 / 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.
	Years 3-5, Greater than 712.5 MGal Consumption up to 950 MGal Consumption	\$ 2,021,268	\$ 8.51 / 1,000 gal.			
	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.	\$ 0.00	\$ 0.00 / 1,000 gal.			
	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: \$9,927,275 ⁽³⁾

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DESCRIPTION		Fixed-Price	Lump Sum Unit Rate	APPROVAL PERIOD ⁽⁵⁾	DELIVERABLES	PAYMENT BASIS ⁽⁶⁾
C. CLOSURE CONSTRUCTION ACTIVITIES						1. Invoice based on Percent Complete, approved by Third Party Engineer, of the lump sum amount for each construction phase and each work segment.
	RESERVOIR SLOPE COVER (All 4 Ponds)					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.
C1	Reservoir Slope Cover (All 4 Ponds)	\$6,543,346	⁽⁴⁾	10		
	PHASE III - NGS-S COMPARTMENT					
C2a	NGS-S Reservoir (2005)	\$4,158,450	⁽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	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.
C2b	NGS-S Cap Area (2005)	\$946,048	⁽⁴⁾	10		
C2c	OGS Cap Areas (2005)	\$912,030	⁽⁴⁾	10		
C2d	NGS-N Relief Ditch (2005)	\$694,186	⁽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)	\$2,794,316	⁽⁴⁾	10		
C3b	Phase II Slopes - NGS (2006)	\$2,747,917	⁽⁴⁾	10		
	COOLING/SLUDGE PONDS & DITCHES					
C4a	NCP Closure	\$3,787,926	⁽⁴⁾	10		
C4b	SCP Closure	\$7,076,574	⁽⁴⁾	10		

Task C, Total Lump Sum: \$31,073,792

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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 than 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, SE-9 which was previously authorized but not constructed, 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. 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⁾.

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ATTACHMENT C
TABLE 1

**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		
C1	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	175000	\$ 120,000	\$ 0.69	\$ 0.69		
	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		
	Other Ancillary (See Notes 16 and 17)	lump	lump	lump	\$ 157,022	-	-		
TOTAL ITEM C1								\$ 6,543,346	
C2	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)	sf	3,000,000	3,000,000	\$ 2,222,208	\$ 0.741	\$ 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	-	-	\$ 4,158,450.12	
	(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	cy	25,000	37,725	\$ 387,232	\$ 10.26	\$ 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	lump	lump	lump	\$ 53,851	-	-	\$ 946,048.07	
	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	cy	24,000	34,000	\$ 348,996	\$ 10.26	\$ 11.29		
	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	lump	lump	lump	\$ 53,114	-	-	\$ 912,030.21	
	Task C2d. NGS-N Relief Ditch (2005)								
	Gypsum Fill (see Note 14)	cy	5,000	28,100	\$ 167,855	\$ 5.97			
	60-Mil HDPE Liner (see Note 9)	sf	300,000	292,703	\$ 150,342	\$ 0.514	\$ 0.47		
	Soil Cover	cy	18,000	22,578	\$ 231,754	\$ 10.26	\$ 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	lump	lump	lump	\$ 39,686	-	-	\$ 694,185.63	
	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	
	Other Ancillary	lump	lump	lump	\$ 14,300	-	-	\$ 1,413,000.00	
	TOTAL ITEM C2								\$ 8,123,714.03
C3	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	cy	80,000	88,778	\$ 1,121,598	\$ 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	
	Other Ancillary	lump	lump	lump	\$ 97,241	-	-	\$ 2,794,315.75	
	Task C3b. Phase II Slopes - NGS (2006)								
	Gypsum Earthwork	cy	50,000	94,319	\$ 194,351	\$ 2.06	\$ 2.06		
	80-Mil HDPE Liner (Runoff Ditches)	sf	225,000	225,000	\$ 154,125	\$ 0.685	\$ 0.69		
	60-Mil HDPE Liner (Stormwater Pond)	sf	570,000	570,000	\$ 268,714	\$ 0.471	\$ 0.47		
	Drains	lf	7,000	7,140	\$ 823,760	\$ 115.37	\$ 115.37		
	Soil Cover	cy	70,000	77,681	\$ 981,402	\$ 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	
	Other Ancillary	lump	lump	lump	\$ 95,759	-	-	\$ 2,747,916.59	
	TOTAL ITEM C3								\$ 5,542,232.34

ATTACHMENT C
TABLE 1

**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	
C4	ITEM C4. COOLING/SLUDGE PONDS & DITCHES							
	Task C4a. NCP Closure							
	Earthwork (Soil)	cy	200,000	198,050	\$ 1,351,225	\$ 6.82	\$ 6.82	
	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	
	Other Ancillary	lump	lump	lump	\$ 54,041			Total Task C4a
								\$ 3,787,925.60
	Task C4b. SCP Closure							
	Earthwork (Soil)		50,000	49,508	\$ 337,775	\$ 6.82	\$ 6.82	
	80-Mil HDPE Liner (Process Water Sump)	sf	485,000	485,000	\$ 332,225	\$ 0.685	\$ 0.69	
	80-Mil HDPE Liner (Runoff Ditches)	sf	415,000	415,000	\$ 284,275	\$ 0.685	\$ 0.69	
	40-Mil HDPE Liner	sf	3,200,000	3,200,000	\$ 1,267,200	\$ 0.396	\$ 0.40	
	Drains	lf	6,500	6,665	\$ 765,120	\$ 114.80	\$ 114.80	
	Soil Cover	cy	290,000	266,360	\$ 3,613,992	\$ 13.57	\$ 13.57	
	Soil Grassing							
	Seeding (Cap Areas and Plant Areas)	ac	100	100	\$ 234,308	\$ 2,343.08	\$ 2,343.08	
	Sodding (Runoff Ditches)	ac	16	16	\$ 140,720	\$ 8,795.00	\$ 8,795.00	
	Other Ancillary	lump	lump	lump	\$ 100,959			Total Task C4b
								\$ 7,076,574.40
ITEM C - CLOSURE CONSTRUCTION TOTAL					\$ 31,073,792			
								\$ 31,073,792
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.								

Coates, John

From: Carter, Dean [CarterDE@cdm.com]

Sent: Fri 2/10/2006 3:51 PM

To: Coates, John

Cc:

Subject: RE: SE-4 and SE-10 Sprays

Attachments:

John,

CDM takes no exceptions to the proposed spray evaporation numbers.

Dean

From: Coates, John [mailto:John.Coates@dep.state.fl.us]

Sent: Tuesday, February 07, 2006 1:33 PM

To: Carter, Dean

Cc: Gorrie, Jason; Zamani, Sam

Subject: FW: SE-4 and SE-10 Sprays

Dean,

Please see spray evaporation number recommendations from Ardaman. Once you've had a chance to review, please let me know and we can discuss as needed.

Thanks so much.

John

-----Original Message-----

From: Fuleihan, N (Priority) [mailto:NFuleihan@ardaman.com]

Sent: Tuesday, February 07, 2006 12:16 PM

To: Coates, John; Zamani, Sam

Cc: Leto, Tom; Werner, Rob; Shrestha, Rajendra

Subject: FW: SE-4 and SE-10 Sprays

John:

See tables below for estimated spray losses from relocated spray systems as proposed by CDM (per 2/2/06 Status of Spray Evaporation "memo" issued by CDM's Paul Roberts and distributed to meeting attendees on 2/2/06). The reported consumption (see below)

is consistent with what we had used earlier for such systems. Note that the preliminary values adopted by CDM on a temporary basis are higher than indicated below, so CDM's Jason Gorrie should correct the corresponding consumption values. Assuming that CDM and DEP concur, the values below could be incorporated in a Change Order.

Nadim F. Fuleihan

-----Original Message-----

From: Shrestha, Rajendra

Sent: Tuesday, February 07, 2006 11:53 AM

To: Fuleihan, NF (Private)

Subject: SE-4 and SE-10 Sprays

Nadim,

The following are the estimated average net spray evaporation losses for a nozzle pressure of **50 psi**, inflow per nozzle of **2.91 gpm**, and an operating factor of **80 percent**:

Month	SE-4	SE-10
	208 nozzles	144 nozzles
	(MGD)	(MGD)
-----	-----	-----
Jan	0.0210	0.0165

Feb	0.0222	0.0174
Mar	0.0329	0.0258
Apr	0.0459	0.0360
May	0.0530	0.0416
Jun	0.0519	0.0407
Jul	0.0482	0.0379
Aug	0.0443	0.0347
Sep	0.0382	0.0300
Oct	0.0291	0.0228
Nov	0.0210	0.0164
Dec	0.0198	0.0155
Annual	13.0 Mgal	10.2 Mgal

When operating at a nozzle pressure between 30 psi and 50 psi, the net evaporation should be interpolated using the following spray consumption factors (also listed in DEP Contract No. SP644, Attachment C, Change Order SP644-005):

Pressure (psi)	Spray Consumption Factor
-----	-----
30	0.400
40	0.655
50	1.000

Please let me know if you need additional information.

Rajendra

Coates, John

From: Carter, Dean [CarterDE@cdm.com] **Sent:** Wed 2/15/2006 4:48 PM
To: Coates, John
Cc: Fuleihan, N (Priority); Werner, Rob; Solters, Stephen; Cruz, Michael
Subject: Revised Draft CO for OGS N Underdrain Changes Order
Attachments:  [OGS-N Soil Cover Underdrain CO Letter Rev 1.doc\(39KB\)](#)  [Compass OGS-N Drainage pipe Revised.xls\(24KB\)](#)  [OGS North Soil Cover Underdrain Addition rev 1.xls\(26KB\)](#)

John,

Attached are revised files for OGS N Underdrain and Inlet Structure Wing Walls. The price has been revised to reflect the correct length of drain at 275 feet.

The higher unit cost for the underdrain is due to the factors mentioned in Nadim's review comments and also due to the fact that the OGS-N underdrain is surrounded by gravel as shown in Detail 10 on Sheet D-3. The underdrain for the OGS S was surrounded by cover soil as shown on Detail 9 on Sheet D-3.

Dean

<<OGS-N Soil Cover Underdrain CO Letter Rev 1.doc>> <<Compass OGS-N Drainage pipe Revised.xls>> <<OGS North Soil Cover Underdrain Addition rev 1.xls>>

February 15, 2006

Mr. John Coates
Contract Manager
Florida Department of Environmental Protection
Bureau of Mine Reclamation
2051 East Dirac Drive
Tallahassee, Fl 32310

**RE: OGS North Compartment Soil Cover Underdrain Change Order
FDEP Contract Number SP644**

Dear Mr. Coates,

CDM Constructors Inc. hereby submits the following change order amount to the contract associated with the proposed addition of an underdrain system for the soil cover in the OGS North Compartment and the additional costs associated with the cast in place concrete stem walls for the inlet structures of the OGS North and South compartments.. The total amount of the proposed change order is an increase of \$52,130.00 to the contract amount.

The OGS underdrain system consists of 275 lineal feet of 6" perforated HDPE pipe surrounded by stone wrapped in 12 ounce filter fabric. The fabric wrapped stone is then covered with gravel in accordance the plan details. The underdrain system and cast in place concrete stem walls will be installed in accordance with the contract plans dated December 16, 2005 and the applicable specification sections by Ardaman & Associates. The attached spreadsheet itemizes the cost of the work associated with this proposed change.

Please advise if this change is acceptable to the Department. Feel free to call me at 407-660-6423 if you have any questions.

Sincerely,
CDM Constructors Inc.

Dean Carter
Senior Project Manager

Cc: Phil Coram
Richard Slovarp

Piney Point OGS-N and OGS-S Drainage Pipe

Discription	Quantity	Unit	Price	Total
OGS-N Drainage Pipe	275	LF	\$82.00	\$22,550.00
OGS-N Wing Walls	1	EA	\$11,500.00	\$11,500.00
OGS-S Wing Walls	1	EA	\$11,500.00	\$11,500.00

OGS-N TOTAL	\$34,050.00
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OGS-S TOTAL	\$11,500.00
--------------------	--------------------

TOTAL	\$45,550.00
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Piney Point Project # 44810
OGS North Soil Cover Underdrain Addition

Descripiton of Work	Subcontracts	CDM Labor	CDM Materials	CDM Equip	Total Amount
Compass Environmental	\$45,550.00				
CDM Labor and Supervision		\$638.98			
CDM PPE \$0.50/MH			\$8.00		
CDM Small Tools \$1.50/MH			\$133.50		
CDM Equipment Pickup Truck 46 Hours				\$128.00	
Mark up 10 % Subcontracts	\$4,555.00				
Mark up 10% Equipment				\$12.80	
Mark up 12% Direct Labor		\$76.68			
Subtotals	\$50,105.00	\$715.66	\$141.50	\$140.80	\$51,102.96
Insurance 1%					\$511.03
State of Florida Transaction Fee 1%					\$516.14
<u>Total Amount</u>					<u>\$52,130.13</u>

CDM Site Labor	2005 Rate	Burden %	FBC	HRS	Total-FBC	
Jean Wilson Project Engineer	\$25.00	\$9.00	\$34.00	10.00	\$340.00	5 Days at 2 Hrs/Day
Mike Cruz Construction Manager	\$31.40	\$11.30	\$42.70	4.00	\$170.82	1 Wks at 4 Hrs/Wk
Steve Solters Over All Site Proj Mgr	\$47.12	\$16.96	\$64.08	2.00	\$128.17	
				16.00	\$638.98	

Coates, John

From: Fuleihan, N (Priority) [NFuleihan@ardaman.com]
Sent: Wed 2/15/2006 5:48 PM
To: Carter, Dean; Coates, John
Cc: Werner, Rob; Solters, Stephen; Cruz, Michael
Subject: RE: Revised Draft CO for OGS N Underdrain Changes Order
Attachments:

John:

Dean is correct. We are using a different design for the OGS-N drain because a sand cover along the alignment of the OGS-N drain is likely to be subjected to significant erosion over time, whereas in the OGS-S drain, the sand cover extends over and beyond the limits of the drain.

In light of these differences, the cost is reasonable. Ardaman is, therefore, OK with the change order, as revised.

Nadim F. Fuleihan

-----Original Message-----

From: Carter, Dean [mailto:CarterDE@cdm.com]
Sent: Wednesday, February 15, 2006 4:48 PM
To: Coates, John
Cc: Fuleihan, N (Priority); Werner, Rob; Solters, Stephen; Cruz, Michael
Subject: Revised Draft CO for OGS N Underdrain Changes Order

John,

Attached are revised files for OGS N Underdrain and Inlet Structure Wing Walls. The price has been revised to reflect the correct length of drain at 275 feet.

The higher unit cost for the underdrain is due to the factors mentioned in Nadim's review comments and also due to the fact that the OGS-N underdrain is surrounded by gravel as shown in Detail 10 on Sheet D-3. The underdrain for the OGS S was surrounded by cover soil as shown on Detail 9 on Sheet D-3.

Dean

<<OGS-N Soil Cover Underdrain CO Letter Rev 1.doc>> <<Compass OGS-N Drainage pipe Revised.xls>> <<OGS North Soil Cover Underdrain Addition rev 1.xls>>

Coates, John

From: Fuleihan, N (Priority) [NFuleihan@ardaman.com] **Sent:** Wed 2/15/2006 10:47 AM
To: Coates, John
Cc: Coram, Phil; CarterDE@cdm.com; edgarmh@cdm.com; cruzma@cdm.com; SoltersSM@cdm.com; Werner, Rob
Subject: RE: OGS North Underdrain CO for your review
Attachments:

John:

The unit rate for installation of the OGS-N drain in CDM's proposed change order is \$82.00/lf based on an estimated quantity of 175 feet. The proposed unit cost of \$82.00/lf is significantly higher than the unit cost of \$53.25/lf corresponding to the approved C.O. 008 for installation of the filtration drain in the OGS-S Compartment. Note that the actual design length of the proposed OGS-N filtration drain that needs to be installed at this stage, as shown on Drawing C-4, is 275 feet and not 175 feet. If the total requested price for the drain were to hold, we backfigure a unit rate of \$52.18/lf for a length of 275 feet, which is more in-line with the C.O. 008 unit cost estimate. On the other hand, considering the increased level of detail in the OGS-N installation (the OGS-N alignment is a cross shape whereas the OGS-S alignment was linear), somewhat more difficult access to portions of the drain (whereas the OGS-S drain lies alongside the toe road at bottom of the soil cover slope), and the smaller total quantity of 275 feet, a somewhat higher unit rate is probably justified. Note that the unit rate of \$82.00/lf was apparently formulated by Compass/CDM using an erroneously low quantity of 175 lf; hence, the unit rate for the correct quantity of 275 lf should be greater than \$52/lf but lower than \$82/lf.

The proposed change order line items for modifying the OGS-S and OGS-N concrete inlet structures appear to be reasonable.

CDM should resubmit the proposed change order costs based on the actual OGS-N filtration drain design length of 275 feet.

Nadim F. Fuleihan

-----Original Message-----

From: Coates, John [mailto:John.Coates@dep.state.fl.us]

Sent: Tuesday, February 14, 2006 11:18 PM

To: Fuleihan, N (Priority); Werner, Rob

Cc: Coram, Phil; CarterDE@cdm.com; edgarmh@cdm.com; cruzma@cdm.com; SoltersSM@cdm.com

Subject: FW: OGS North Underdrain CO for your review

Nadim,

Attached please find a draft change order submitted for consideration by CDM,

for DEP Contract SP644, for modifying the existing drain in the OGS-N

reservoir compartment in anticipation of placing protective soil cover on the

lined slopes of the OGS-N compartment. This change order also includes the

stem walls in the inlet structures for the OGS-S and OGS-N

compartments.

Change Order SP644-008 separately approved the drain modification for the

OGS-S compartment.

Would you please review the scope, materials, and costs for the proposed

change order and provide the Department with your recommendations.

Please contact me at any time if there are questions on this draft change

order.

John

John A. Coates, P.E.

Program Administrator, Phosphate and Technical Services

Bureau of Mine Reclamation

Office: (850) 488-8217, ext. 17

Fax: (850) 412-0714

-----Original Message-----

From: Carter, Dean [mailto:CarterDE@cdm.com]

Sent: Tue 2/14/2006 3:00 PM

To: Coates, John

Cc: Fuleihan, N (Priority); Werner, Rob; Solters, Stephen;
Cruz,
Michael; Edgar, Michael

Subject: OGS North Underdrain CO for your review

John,

Attached are files of draft change order for OGS North
underdrain

system and the stem walls for the inlet structures for the OGS-n
and OGS-S.

Dean

<<OGS-N Soil Cover Underdrain CO Letter.doc>> <<Compass
OGS-N and

OGS-S Drainage pipe.xls>> <<OGS North Soil Cover Underdrain
Addition.xls>>