

APPENDIX 2-3

Soil Test Pit Logs

Mine # C/007/0039
File shcsming
Record # 0036
Doc. Date 4.08.05
Recd. Date 4.08.05

Subterranean changes caused by subsidence to wildlife habitat is not currently understood. Subsidence could disrupt burrow systems destroying the home and habitat of burrowing mammals, reptiles, and amphibians and possibly cause death to some species in the immediate area. Since subsidence occurs systematically and in small areas at a given time, only localized populations will be impacted and only for a short period of time. Reproductive potential coupled with dispersal will facilitate recovery and negate the temporary population reduction.

Possible Short-Term and Long Term Impacts to Species Dependent on Springs, Creeks and Drainages

Impact to species dependent on springs, creeks and drainages could include disturbance of shelter, food, increased evaporation, rise and/or decrease in water temperature, water flow, and bank stability. Most species of wildlife are highly adaptable, while others with limited mobility are not. ~~These species~~ **The mollusk (*Physella virgata*) and tiger salamander, mentioned in the TA on Task ID #1915) are dependent on water resources and may have likely been impacted by the drought conditions in Utah since 1999. Studies have shown that when habitat changes amphibians** ~~These species~~ have either died or have moved to locations where water and habitat are more abundant. If they have moved, then should their habitat change again, they will likely move to a more suitable area..(Joseph M. Kiesecker - Dept. Of Biology, Pennsylvania State University; Andrew R. Blaustein and Lisa K. Belden - Dept. of Zoology, Oregon State University; Global Amphibian Assessment, Amphibia WebAmphibiaWeb (<http://elib.cs.berkeley.edu>; Alex Kirby, BBC News Online "Global amphibians in deep trouble" October 14, 2004; U.S. Water News Online, "Georgia drought harming wetland species" January 2002; UPI Science News, "Wildlife suffering from record drought" 8/30/02). **There have been no impacts identified to springs, creeks or drainages within the Dugout Mine permitted area.** Subsidence could in the future **impact mullusk and salamander individuals.** ~~these species, however to the best of the permittee's knowledge neither the listed species or other species dependent on springs, creeks and drainages have been identified as being impacted by subsidence within the permitted area. In addition, there has been no impact identified to springs, creeks or drainages within the Dugout Mine permitted area.~~ **In the event of subsidence-related impact, the subsidence plan details measure that should repair material damage, including habitat for the state-listed sensitive mollusk and salamander species.**

Canyon Fuel Company, LLC
SCM/Dugout Canyon Mine

Mining and Reclamation Plan
April 2005

APPENDIX 4-2

Land Uses

● THAYNE TRUST
SURFACE USE AGREEMENT

SURFACE USE AGREEMENT

THIS SURFACE USE AGREEMENT (this "Agreement"), dated as of November ____, 1999 ("Effective Date"), is by and between Canyon Fuel Company, L.L.C., ("CFC"), whose mailing address is 6955 Union Park Center, Suite 540, Midvale, Utah 84047, and Milton and Ardith Thayn Trust ("Thayn"), whose mailing address is 7730 East Hwy 6, Price, Utah 84501.

Recitals

Thayn is the surface owner of lands located in Carbon County, Utah, which are described on Exhibit "A" attached hereto (the "Thayn Lands"). CFC is a coal mining company and owns and operates the Soldier Canyon Mine and Dugout Canyon Mine (the "Mines"). CFC holds rights under Federal coal leases and pursuant to mine permits granted or to be granted by the Utah Division of Oil, Gas and Mining (the "Mine Permits") to develop and mine underground coal. Thayn has agreed to grant to CFC the nonexclusive use by CFC of the surface of the Thayn Lands to facilitate its coal mining operations in exchange for rights and services from CFC.

Agreement

IN CONSIDERATION of the mutual covenants contained in this Agreement and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Grants and Services to Thayn.
 - (a) CFC shall lease to Thayn for farming and grazing the following lands and grazing and water rights described in Exhibit "B" attached hereto : (1) lands owned by CFC located in the Clark Valley (the "Clark Valley Lease Lands"); (2) water rights owned by CFC appurtenant to the Clark Valley Lease Lands (the "Clark Valley Water Rights"); (3) state and federal grazing rights held by CFC related to the Clark Valley Lease Lands (the "Grazing Rights"); and (4) water rights represented by 50 shares of water stock in the Wellington Canal Company owned by CFC (the "Water Shares"). The Clark Valley Lease Lands, the Clark Valley Water Rights, the Grazing Rights and the Water Shares shall all be leased to Thayn under the "Lease Agreement" attached hereto as Exhibit "C."

- (b) CFC hereby grants to Thayn, for the term of this Agreement and for so long thereafter as agreed in writing by the parties, the non-exclusive, limited use of the Dugout Canyon unimproved road lying north of the Dugout Canyon Mine as may be reasonable and necessary for Thayn's cattle ranching activities, provided that such use shall (i) not interfere with the regular activities of the Mines; (ii) comply with all CFC and applicable federal, state and local rules and regulations imposed on the use of the road; and (iii) not include use of the road by any third party including hunters, tourists or sight-seers.
- (c) Upon written notice to CFC, Thayn may request that CFC monitor the flow of springs, streams and seeps located on the Thayn Lands that Thayn reasonably believes may be impacted by CFC's underground mining operations. Upon receiving the written request, CFC shall meet with Thayn to discuss the monitoring sites and to reach a mutually acceptable schedule for such monitoring, provided that CFC shall only be required to monitor such sites for flow. Nothing in this Agreement shall modify CFC's water monitoring program as required by the Mine Permits.
- (d) Thayn shall have the non-exclusive right to submit bids as an independent contractor for earth-moving projects conducted on the Thayn Lands that CFC elects, in its sole discretion, to contract to a third party. Thayn shall have a preference for selection as the contractor for the project provided that Thayn can demonstrate to the reasonable satisfaction of CFC that (i) Thayn owns or has right to use the necessary equipment for the project, (ii) Thayn carries insurance coverage required by CFC's risk management procedures for the project, (iii) Thayn has the necessary licenses and permits to conduct the project, and (iv) Thayn's proposed bid is competitive with other bids solicited by CFC for the project. Notwithstanding the foregoing, nothing in this Agreement shall be construed to require CFC to use a third party contractor for any project on the Thayn Lands or to conduct a bid process to select a third party contractor for work conducted on the Thayn Lands or on behalf of Thayn.

2. Surface Use Grants to CFC. CFC shall have and is hereby granted an easement on, over, and through, and a right to use, the surface of the Thayn

Lands as may be necessary and appropriate for the following purposes in connection with mining coal by underground mining methods: (a) conduct subsidence and soil and water sampling, and carry out raptor, wildlife and other environmental studies; (b) conduct exploration drilling and analyses of subsurface conditions by all reasonable means; (c) place or install minor mechanical instruments such as geophones, geo-seismic lines and the like to monitor underground, mine-related activities and results; (d) drill production holes, place and relocate pipelines, and place surface facilities to develop, vent or remove coalbed methane gas, provided such use shall not interfere with regular activities of Thayn's ranching and hunting, and further provided, CFC shall coordinate such activities with Thayn to minimize disruption to Thayn's ranching and hunting activities; and (e) exclusively subside the surface of the Thayn Lands. Except as provided in Sections 3 and 5, CFC shall have no obligation to pay to Thayn any compensation for use of the Thayn Lands.

3. Compensation for Surface Facilities.

- (a) In the event CFC is required to place temporary or semi-permanent structures on the Thayn Lands (such as methane venting, exhausting equipment, methane drainage pump stations, pipelines and utilities) in connection with exercising its rights hereunder, CFC shall reasonably compensate Thayn for the use of the Thayn Lands for such structures at rates comparable to other operations in the area. (By way of example, coalbed methane venting and degasification wells are currently compensated at rates in the range of \$2,000 to \$3,500 per year until the well is plugged and reclaimed.) The parties shall use their best good faith efforts to negotiate compensation for any permanent structure placed on the Thayn Lands.
- (b) CFC shall pay Thayn \$2,000 for each exploration drill hole placed on the Thayn Lands. Thayn acknowledges that \$2,000 represents fair and reasonable compensation for each such drill hole, provided, however, if any such exploration drill hole is subsequently used for coalbed methane venting, Thayn shall be entitled to additional compensation in accordance with the provisions of Section 3(a).

4. Care of Thayn Lands.

- (a) CFC shall use and maintain the Thayn Lands in a careful, safe, and lawful manner and shall conduct its operations in compliance with all applicable federal, state and local laws, rules and regulations. CFC shall only use the Thayn Lands for the purposes set forth herein and shall not permit the use or occupancy of the Thayn Lands by any person other than CFC, its employees, agents and contractors.
- (b) CFC shall provide Thayn with written notice prior to undertaking any activities on the Thayn Lands. Thayn's concurrence shall be obtained regarding the location of any proposed material surface disturbance, including but not limited to drilling exploration boreholes. Thayn's permission shall not be unreasonably withheld.
- (c) CFC shall give special siting consideration to potential borehole locations near springs and seeps on the Thayn Lands.
- (d) CFC shall repair or replace any improvements upon the Thayn Lands damaged by CFC's operations. CFC shall reclaim all surface areas disturbed as a result of CFC's operations and shall implement a noxious weed control program for all such disturbed areas for a period of not less than four years from the date of reclamation reseeding.
- (e) All drilling or other similar activities and all CFC-related facilities, such as "mud pits," that could result in injury or death to livestock shall be fenced or otherwise isolated to protect livestock. CFC shall repair or reclaim to the extent technologically and economically feasible subsidence damage to the Thayn Lands that could be harmful to livestock.
- (f) CFC shall maintain insurance coverage for its activities conducted on the Thayn Lands consistent with coverages customary for the coal industry and in compliance with all applicable regulatory requirements and shall provide Thayn with a copy of all insurance certificates naming Thayn as an additional insured against CFC's operations conducted pursuant to this Agreement.
- (g) As required by and in conformance with applicable law, CFC shall replace any water supply owned and beneficially used by Thayn for

domestic, agricultural, or other legitimate use from an underground or surface source where the water supply has been adversely impacted by contamination, diminution, or interruption proximately resulting from CFC's mining operations.

5. Term.

- (a) This Agreement shall be for a term of years beginning on the Effective Date and continuing for a period for the life of the Mines plus two (2) years, but in no event longer than twenty (20) years. For purposes of this Agreement, the life of the Mines shall end upon permanent closure of the Mines and cessation of all operations for the production and sale of coal from the Mines.
- (b) CFC shall have no obligation to make any rental or other payment to maintain this Agreement in full force and effect. The parties acknowledge and agree that the Lease Agreement shall constitute full and fair consideration for this Agreement. In the event the Lease Agreement terminates or expires as provided therein prior to a date twenty (20) years from the Effective Date, CFC shall pay to Thayn the sum of \$5,000 annually on the anniversary date for the remaining term of this Agreement in lieu of the rights granted under the Lease Agreement ("Rental Payment").
- (c) The monetary payment terms set forth in Sections 3 and 5(b) of this Agreement ("Payment Terms") shall be adjusted for inflation on the seventh (7th) and fourteenth (14th) annual anniversaries after the Effective Date based on the cumulative changes in the Consumer Price Index (CPI), or other generally-recognized economic pricing index, for the preceding seven-year period. The proposed adjustments shall be calculated by CFC and communicated to Thayn in writing within thirty (30) days after the seventh and fourteenth anniversaries. All adjustments to Payment Terms shall be effective as of the seventh and fourteenth anniversary dates and shall otherwise apply prospectively and shall not apply to payments previously made under this Agreement. All other claims for adjustment of non-monetary terms of this Agreement, including allegations of non-compliance with any express term, shall be subject to the provisions of Section 7.

- (d) Nothing in this Section 5 shall, nor shall it be interpreted to, amend, modify or waive any term or provision of Section 2 that grants rights to CFC to the Thayn Lands. Thayn shall have no right to claim a default of or to terminate this Agreement based on the Payment Terms readjustment provisions of this Section 5.
6. Title. Thayn warrants generally the title to the surface of the Thayn Lands and represents that Thayn has all necessary right and authority to grant to CFC the property rights and privileges conveyed hereunder.
7. Breach of Obligations. If either party believes that the other party has not complied with any express term, obligation or covenant of this Agreement, then in such event such party shall notify the other party in writing setting out specifically the details regarding the alleged breach or default. The party in default shall have thirty (30) days after receipt of the notice within which to cure or commence to cure all or any part of the breach or default alleged by the other party. If the defaulting party fails to cure or commence to cure the alleged default or breach as required, then the non-defaulting party shall have the option, but not the obligation, to submit the matter to binding arbitration as provided in this Agreement.
8. Arbitration. Disputes arising under this Agreement between the parties based upon any alleged breach of any of the obligations hereunder, which the parties are unable to resolve, shall be finally settled in accordance with the provisions of the Utah Arbitration Act by a single arbitrator. The arbitrator shall have broad power to grant relief for any dispute submitted pursuant to this Section 8, including without limitation termination of this Agreement. The arbitration proceedings shall be conducted in Price, Utah. CFC shall be responsible for all costs incurred in arbitration, including all fees and expenses of the arbitrator. Either party may enforce any arbitration award by instituting an action in the appropriate state or federal district court.
9. Indemnification. CFC shall indemnify, defend and hold harmless Thayn from and against all claims, costs, losses and expenses of any and every kind or character (including without limitation, mechanic liens and additional taxes) that are caused by or arise out of CFC's operations conducted on the Thayn Lands pursuant to this Agreement, provided that Thayn shall not be indemnified for matters expressly covered by this

Agreement, including without limitation the grant to CFC to subside the surface as a result of its underground mining operations.

10. Assignment. CFC's rights under this Agreement may not be assigned or sublet without the prior written consent of Thayn, which consent shall not be unreasonably withheld, provided that CFC may assign or sublease its interest hereunder without consent if such assignment or sublease is to an affiliate, parent or subsidiary of CFC, or to a party which acquires all or substantially all of the assets of CFC or the Mines.
11. Notices. All notices shall be in writing and addressed as follows:

If to Canyon Fuel Company:

President
Ark Land Company
CityPlace One
Suite 300
St. Louis, MO 63141-7056
(314) 994-2700

With a copy to:

Canyon Fuel Company, L.L.C.
Soldier Canyon Mine
P.O. Box 1029
Wellington, UT 84542
Attn: David G. Spillman
(435) 636-2872

If to Thayn:

Milton and Ardith Thayn Trust
7730 East Hwy 6
Price, UT 84501
Attn: David Thayn
(435) 472-4251

Notices are sufficient if delivered by hand, sent by facsimile transmission or deposited in the United States mail, postage prepaid and addressed to the appropriate addresses.

12. CFC Permits. Thayn expressly agrees to not oppose CFC's application for or issuance of the Mine Permits or for such other permits or approvals necessary or required to conduct coal mining operations at the Mines that may relate to or involve the Thayn Lands. In the event that CFC's Mine Permits are materially revised to require access or use of the Thayn Lands not granted by this Agreement, the parties shall use their respective best good faith efforts to negotiate such required access or use.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the Effective Date.

CANYON FUEL COMPANY L.L.C.

By James E. Hoyle
Its VP & Treasurer

Milton and Ardith Thayn Trust

By Milton Thayn
Its Trustee

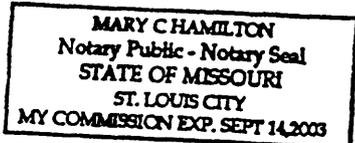
Missouri
STATE OF UTAH)
City) ss:
COUNTY OF St. Louis

The foregoing instrument was acknowledged before me this 2nd day of November, by James E. Hoyle who being by me duly sworn did say that he is the VP & Treasurer of Canyon Fuel Company, L.L.C.,

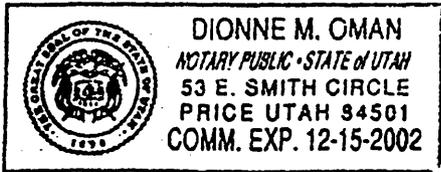
and that the foregoing Surface Use Agreement was signed on behalf of said limited liability company.

NOTARY PUBLIC
Mary C. Hamilton
Residing at: City of St. Louis

My Commission Expires:
9-14-2003



STATE OF UTAH)
)ss:
COUNTY OF CARBON)



The foregoing instrument was acknowledged before me this 15 day of NOVEMBER, by Milton Thayne, the signer of the foregoing Surface Use Agreement, who duly acknowledged to me that he executed the same as Trustee of and for the benefit of the Milton and Ardith Thayne Trust.

NOTARY PUBLIC
Dionne M. Oman
Residing at: Price, UT

My Commission Expires:
12-15-2002

EXHIBIT "A"
to
Surface Use Agreement

Thavn Lands

T13S, R12 E, Salt Lake Meridian, Utah

Sec. 12: E/2 SE/4;

Sec. 13: E/2; SE/4 NW/4; E2 SW/4; NW/4 SW/4;

Sec. 24: All;

Sec. 25: NW/4.

T13S, R13 E, Salt Lake Meridian, Utah

Sec. 7: S/2SW/4, NW/4SW/4;

Sec. 18: S/2, NW/4, S/2NE/4, NW/4NE/4;

Sec. 17: SW/4, S/2SE/4, NW/4SE/4;

Sec. 19: All Except Lot 4;

Sec. 20: All;

Sec. 21: S/2, S/2N/2, NW/4NW/4;

Sec. 22: SW/4, S/2NW/4;

Sec. 27: W/2;

Sec. 28: All;

Sec. 29: All;

Sec. 30: All Except Lots 1 and 2;

Sec. 33: N/2N/2.

EXHIBIT "B"
to
Surface Use Agreement

CLARK VALLEY LEASE LANDS

(approximately 4,461 acres):

<u>Township</u>	<u>Range</u>	<u>Section</u>	<u>Description</u>
14 South	12 East	3	S½SE¼; S½SW¼
"	"	5	S½SE¼
"	"	8	NE¼NE¼; W½NE¼; SW¼; E½NW¼
"	"	9	SE¼
"	"	10	E½; SW¼; E½NW¼; SW¼NW¼
"	"	11	SE¼; NE¼; E½SE¼; SW¼SE¼; W½
"	"	13	W½; SW¼; S½NW¼; NE¼SW¼
"	"	14	All
"	"	15	E½; SW¼; E½NW¼
"	"	17	NW¼; SE¼; E½SW¼; NW¼SW¼
"	"	18	E½NE¼
"	"	20	N½NE¼
"	"	21	NE¼NW¼; W½NW¼; SE¼NE¼
"	"	22	NW¼

CLARK VALLEY WATER RIGHTS

Water Right No.
(Irrigation &
Stockwatering)

91-23
91-85
91-86
91-409

Water Right No.
(Stockwatering)

91-410 91-447
91-411 91-448
91-412 91-449
91-413 91-450

**Exhibit B
to Surface Use Agreement**

Water Right No.
(Irrigation &
Stockwatering)

Water Right No.
(Stockwatering)

91-457	91-414	91-451
91-491	91-415	91-452
91-492	91-416	91-453
91-493	91-417	91-456
91-494	91-418	91-458
91-495	91-419	91-459
91-604	91-420	91-460
91-605	91-421	91-461
91-606	91-422	91-465
91-607	91-426	91-466
	91-427	91-467
	91-428	91-468
	91-429	91-469
	91-430	91-470
	91-443	91-591
	91-444	91-3729
	91-445	91-3730
	91-446	

GRAZING RIGHTS

BLM Grazing Allotment #4079 (North Clark Valley) Approx. (Acreage 9,480)
Period of Use - March 20th-June 5th

State Grazing Permit #21722 (Approx. Acreage 680)

WATER SHARES

50 Shares of water stock in The Wellington Canal Company from Certificate No. 881

EXHIBIT "C"
to
Surface Use Agreement

LEASE AGREEMENT

THIS LEASE AGREEMENT (this "Lease") is made and entered into as of November ____, 1999 ("Effective Date"), by and between CANYON FUEL COMPANY, L.L.C. ("Lessor"), and MILTON AND ARDITH THAYN TRUST ("Lessee").

Recitals

- A. Lessor is the owner of certain lands and water and grazing rights located in Carbon County, Utah, and more particularly described in Exhibit "A" attached hereto: (1) lands located in Clark Valley ("Clark Valley Lease Lands"); (2) water rights appurtenant to the Clark Valley Lease Lands ("Clark Valley Water Rights"); (3) state and federal grazing rights related to the Clark Valley Lease Lands ("Grazing Rights"); and (4) water rights represented by 50 shares of water stock in the Wellington Canal Company ("Water Shares"). The Clark Valley Lease Lands, the Clark Valley Water Rights, the Grazing Rights and the Water Shares are collectively referred to as the "Lease Interests."
- B. The parties have entered into that certain Surface Use Agreement dated _____ ("Surface Use Agreement") whereby Lessee grants to Lessor rights to use the surface of Lessee's lands to facilitate Lessor's coal mining operations in exchange for this Lease, Lessee desires to lease from Lessor and Lessor and other consideration.

Agreement

NOW, THEREFORE, in consideration of the mutual promises and obligations herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Lessor hereby leases to Lessee the Lease Interests subject to and conditioned upon the following agreement between the parties:

ARTICLE I
AGREEMENT FOR WATER RIGHTS

1.1 Lessor's Right to Use Clark Valley Water Rights and Water Shares. Lessee shall have the right to use part or all of the Clark Valley Water Rights and the water represented by the Water Shares (collectively, the "Leased Water Rights") for the sole purposes of irrigation or stock watering on or for the benefit of the Clark Valley Lease Lands, or such additional uses

expressly allocated to the Leased Water Rights, upon the condition that Lessee notifies Lessor of its intention to use the Leased Water Rights at least one (1) month prior to the date of use by Lessee. Notwithstanding Lessee's exercise of its right granted hereunder, Lessee shall make beneficial use of the Leased Water Rights during the term of this Lease and shall take all necessary and reasonable actions so as to preserve the validity of the Leased Water Rights and prevent any reversion back to the State of Utah. Lessee's promise to make beneficial use of the Leased Water Rights provides an essential portion of the consideration given by Lessee to cause Lessor to enter into this Lease.

1.2 Interest in Clark Valley Water Rights. Lessor and Lessee expressly acknowledge that the interest of Lessee in the Leased Water Rights is that of a tenant, that Lessee shall acquire no ownership interest in the Leased Water Rights, and that Lessee shall have no right, title, or interest in the Leased Water Rights from and after the termination of this Lease. Lessee shall not in any way, intentionally or otherwise, directly or indirectly, take or encourage others to take any action which is inconsistent with or which will or may jeopardize the interests of Lessor in the Leased Water Rights.

1.3 Change of Diversion or Use. Without the prior written consent of Lessor, Lessee shall not file any change application or exchange application with the Utah State Engineer for purposes of changing the nature, point of diversion or use of the Leased Water Rights.

1.4 Voting Rights. Lessee shall have no right to vote the Water Shares and nothing contained in this Lease shall, nor shall it be interpreted to, grant to Lessee any rights to participate in meeting of the Wellington Canal Company or to act for or on behalf of Lessor as the record title owner of the Shares.

ARTICLE II AGREEMENT FOR GRAZING RIGHTS

2.1 Conditions. Lessor shall have the right to use the Grazing Rights shall be subject to the following conditions:

- (a) Lessee shall comply with all applicable statutes and regulations and the terms and conditions of the Grazing Rights and shall perform all other duties or tasks necessary to preserve the Grazing Rights in good standing and prevent any cancellation or other loss of the Grazing Rights. Lessee shall preserve and protect the interest of the Lessor therein and shall not take any action which is inconsistent with or will jeopardize the interest of Lessor in the Grazing Rights. Lessee shall promptly provide Lessor with a copy of any notice of violation, cancellation, inquiry or rental requirement received by Lessee relating to the Grazing Rights and shall undertake all necessary and reasonable actions to

remedy, cure or otherwise remove the basis for the notice. Lessee shall fully cooperate with Lessor to perform such actions as are necessary and advisable to preserve in full force and effect the Grazing Rights.

- (b) Lessor shall remain responsible for and shall pay directly to the BLM and/or State, as appropriate, all fees, rents, costs, or other charges required by statute, regulation, or agreement to keep the Grazing Rights in good standing.
- (c) Lessee hereby expressly waives any right or claim that it may have pursuant to 43 C.F.R. Part 4100 as now enacted or as hereinafter amended to receive compensation for any interests lessee may have in authorized range improvements on the Grazing Rights; and Lessee expressly acknowledges that the mutual promises and obligations of Lessor as specified in this Lease shall be deemed to be adequate compensation for any interests that Lessee may have in authorized range improvements on the Grazing Rights.
- (d) The general terms and conditions of this Lease shall apply to Lessee's right to use the Grazing Rights and the lands governed thereby as though included within the Clark Valley Lease Lands. Any breach or failure by Lessee to satisfy the covenants or conditions relative to the Grazing Rights shall constitute a breach of this Lease.

2.2 Lessee's Cattle. At all times during the term of this Lease, Lessee shall own a minimum of forty percent (40%) of the cattle actively grazing on or using the Clark Valley Lease Lands. Lessee shall not permit grazing of third party livestock on the Clark Valley Lease Lands that would result in a breach of this provision.

ARTICLE III GENERAL TERMS AND CONDITIONS

3.1 Term. The term of this Lease shall commence upon the Effective Date and continue for a primary term five (5) years or the equivalent of sixty (60) calendar months. Lessee at its option shall have the right to renew this Lease for three (3) additional extended terms of five (5) years each by giving Lessor written notice of Lessee's election to renew 60-days prior to the termination of the then effective term. Unless otherwise terminated, this Lease shall terminate at the end of the last extended term which termination in no event shall occur later than 20 years after the Effective Date.

3.2 Consideration.

- (a) Lessee shall have no obligation to pay any rental to maintain this Lease in full force and effect for the term hereof, the consideration for this Lease being represented by the covenants and obligations set forth in the Surface Use Agreement.
- (b) In the event that this Lease is terminated or expires prior to a date twenty (20) years from the Effective Date, Lessor shall pay to Lessee as continuing consideration for the Surface Use Agreement the sum of \$5,000 annually ("Rental Payment") in lieu of this Agreement, payable on the anniversary date of the Effective Date each year for twenty (20) years from the Effective Date, or until the Surface Use Agreement terminates as provided therein.

3.3 Use and Occupancy by Lessee. Lessee shall use the Clark Valley Lease Lands, Leased Water Rights the Grazing Rights and the water attributable to the Water Shares exclusively for the grazing of cattle and for the raising of forage for the feeding of livestock. Lessee shall not authorize or conduct mining, drilling operations or hunting on the Clark Valley Lease Lands or remove sand, gravel, dirt, minerals, water, or associated substances from the Clark Valley Lease Lands; shall not commit any waste upon the Clark Valley Lease Lands; and shall not conduct or allow any business, activity, or thing on the Clark Valley Lease Lands which is or becomes unlawful, prohibited, or a nuisance, or which may cause damage to lessor, to occupants of the vicinity, or to other third parties. Lessee shall comply with and abide by all laws, ordinances, and regulations of all municipal, county, state and Federal authorities which are now in force or which may hereinafter become effective with respect to the use and occupancy of the Clark Valley Lease Lands, the Leased Water Rights and the Grazing Rights. Lessee shall conduct operations of the Clark Valley Lease Lands in accordance with good grazing and range or husbandry practices with reference to practices of others in the geographic vicinity of the Clark Valley Lease Lands and in compliance with applicable law. Lessee shall not overgraze the Clark Valley Lease Lands. Lessee shall ensure that all main entrance gates are kept locked with locks provided by Lessor.

3.4 Use by Lessor. Use of the Clark Valley Lease Lands by Lessee shall be nonexclusive. Lessor shall be entitled, without compensation to Lessee, to use the Clark Valley Lease Lands or grant other parties the right to use the Clark Valley Lease Lands, including but not limited to rights for easements, licenses, and leases, but Lessor shall not grant rights for grazing or agricultural use of the Clark Valley Lease Lands to third parties or make use of the Clark Valley Lease Lands itself for such purposes. However, Lessor shall reimburse Lessee for any damages done to Lessee's crops as a result of the use of the Clark Valley Lease Lands by Lessor.

3.5 Improvements. Lessee shall not construct any permanent building on the Clark Valley Lease Lands and shall not construct any temporary building or advertising sign on the Clark Valley Lease Lands without the prior written consent of Lessor. Lessee shall provide

and/or pay for the labor, material, and equipment for any fences, gates, cattle guards, ditches, ponds, reservoirs, or other improvements for Lessee to make use of the Clark Valley Lease Lands, the Grazing Rights, or to make beneficial use of the Leased Water Rights. Unless otherwise agreed in writing, any improvements which Lessee shall make to the Clark Valley Lease Lands shall be made at no expense to Lessor and shall not be removed and shall remain on the Clark Valley Lease Lands upon the termination of this Lease unless otherwise directed by Lessor. Lessee may use whatever fences, gates, cattle guards, ditches, ponds, reservoirs, and other improvements which now exist on the Clark Valley Lease Lands.

3.6 Representation of Lessee. Lessee represents as follows:

- (a) Lessee is experienced in farming methods, farm equipment, and irrigation methods generally used in Carbon County Lessee shall cultivate grazing pastures and make beneficial use of the Clark Valley Water Rights and otherwise exercise Lessee's rights and privileges under this Lease.
- (b) Lessee has sufficient farming and construction equipment available for its use and shall continue to have such equipment available for its use during the term of this Lease for the construction and maintenance of ditches, roads, ponds, fences, and the performance of other tasks which may be needed to satisfy Lessee's obligations under this Lease.
- (c) Lessee has knowledge of the requirements necessary to preserve the Leased Water Rights in good standing and prevent any loss of nonuse or other reversion back to the State of Utah.

3.7 Right of Entry. At any time throughout the term of the Lease, Lessor shall have the right to enter upon the Clark Valley Lease Lands or any portion thereof for purposes of inspecting the same, determining whether Lessee is performing its obligations under the Lease, including but not limited to the obligation to make beneficial use of the Leased Water Rights, taking any action necessary or desirable to remedy any default by lessee in any of Lessee's obligations hereunder, showing or exhibiting the Clark Valley Lease Lands to existing or prospective mortgage lenders, purchasers, or lessees, placing "for sale" or "for lease" signs on the Clark Valley Lease Lands, performing environmental or analytical studies, or for any other purpose whatsoever.

3.8 Insurance. At all times during the term hereof, Lessee shall secure and maintain public liability insurance providing coverage against damage to persons or property resulting from acts or omissions of Lessor or Lessee respecting the Clark Valley Lease Lands, with limits of liability in such amounts as lessor may determine. All insurance required or permitted hereunder shall be written by reputable, responsible companies licensed in the State of Utah and shall name Lessor as insured. Lessor shall be furnished with copies of the insurance policies then

in force pursuant to this section, together with evidence that the premiums therefor have been paid.

3.9 Taxes. Throughout the term hereof Lessor shall pay all real property taxes, assessments, and special assessments, (all of which are hereinafter collectively referred to as "Taxes"), which are levied against or which apply with respect to the Clark Valley Lease Lands, the Grazing Rights or the Water Rights. Lessee shall pay all taxes, assessments, charges and fees which during the term hereof may be imposed, assessed, or levied by any governmental or public authority against or upon Lessee's use of the Clark Valley Lease Lands or any personal property, equipment, or fixtures kept or installed therein by Lessee.

3.10 Assignment and Subletting.

- (a) Lessee shall have the right to assign or sublet a portion of this Lease with the prior written consent of Lessor, which consent shall not be unreasonably withheld, provided, however, that such assignment or sublease shall expressly provide and require that Lessee own and maintain a minimum of forty percent (40%) of the cattle actively grazing on or using the Clark Valley Lease Lands (as required under Section 2.2 of this Agreement) and that such assignment or sublease shall automatically terminate if at any time Lessee breaches the covenant under Section 2.2. In the event of any such assignment or sublease with the consent of the Lessor, Lessee shall remain liable on all of its covenants and obligations hereunder unless the instrument whereby Lessor consents to the assignment or subletting contains a provision in which Lessor specifically releases Lessee from such further liability. Any purported assignment without the written consent of the Lessor shall constitute a default hereunder and shall be void and of no effect.
- (b) Lessor shall have the right to assign its interests under this Lease without the consent of Lessee. In the event Lessor assigns such interests, Lessor shall, from and after the Effective Date (irrespective of when the assignment occurs), be relieved of any and all liability or obligation to Lessee hereunder, and all such liability and obligation shall, as of the time of such assignment or on the Effective Date, whichever is later, automatically pass to Lessor's assignee, whether or not specifically assumed by it.

3.11. Default and Remedies. In the event Lessee breaches or fails to perform any of its obligations hereunder and Lessee does not within sixty (60) days, unless a lesser time is required by applicable law for the Grazing Rights, after the giving of written notice by Lessor cure the default or begin action to cure the default and thereafter diligently prosecute such action to completion if the default cannot be reasonably cured within sixty (60) days, or as required by applicable law, Lessor shall have the right, at its option, to exercise any of the following rights and remedies:

- (a) Lessor may itself perform or cause to be performed the obligation with respect to which Lessee is in default. In the event Lessor does so, its cost of such performance, including reasonable attorneys' fees and all expenses incurred by Lessor, plus interest thereon at the rate of eighteen percent (18%) per annum from the date of expenditure, shall be deemed to be additional rent and shall be immediately paid by Lessee.
- (b) Lessor may terminate this Lease, immediately enter the Clark Valley Lease Lands, and take possession of the Clark Valley Lease Lands, the Leased Valley Water Rights and the Grazing Rights with or without process of law, and remove all persons and property from the Clark Valley Lease Lands. No such action by Lessor shall be considered or construed to be a forcible entry. By taking such action, Lessor shall incur no liability to Lessee or to any other persons occupying or using the Clark Valley Lease Lands or using the Leased Water Rights or the Grazing Rights for any damage caused or sustained by reason of such entry and removal of persons and property, and Lessee hereby covenants and agrees to indemnify and save harmless Lessor from all costs, loss, or damage arising from or occasioned by such action. In the event Lessor terminates this Lease pursuant to this Subsection (b), it shall also have the right to recover from lessee all other amounts necessary to compensate Lessor for all damages caused by Lessee's default or which would be likely to result from such default.
- (c) Lessor may continue this Lease in effect and enforce all of its rights hereunder. If Lessor does so, it shall have the right to relet or sublet the Clark Valley Lease Lands, the Leased Water Rights, and the Grazing Rights or portions thereof, and any such reletting or subletting may be for a term which extends beyond the term of this Lease. Notwithstanding any election by Lessor to proceed under Subsections (a) or (b) above, so long as Lessee remains in default under this Lease, Lessor shall have the right at any time to terminate this Lease pursuant to Subsection (b) above and to exercise the rights therein provided. The remedies specified in this Section 3.11 are cumulative and are not intended to exclude any other remedy or means of redress to which Lessor may be entitled in the even of any default or threatened default by Lessee with respect to any of its obligations under this Lease.

3.12 Indemnification and Waiver. Lessee shall indemnify and shall hold harmless Lessor and all of Lessor's directors, partners, members, officers, agents, and employees, and each of them, from and against any and all obligations, debts, loss, damage, claims, demands, suits, controversies, costs, fees, liens, encumbrances, and liabilities whatsoever, including attorneys' fees, in any way resulting from or arising out of any failure by Lessee to abide by all of the terms of this Lease or any negligent or intentional act or omission by Lessee or any of its agents, employees, invitees, licensees, or contractors arising out of or in connection and occupancy of the

Clark Valley Lease Lands or use of the Leased Water Rights, or the Grazing Rights. Lessor shall not be responsible or liable for any loss or damage to Lessee or to Lessee's property or business that may be occasioned by or through the acts or omissions of persons occupying, using, or trespassing upon the Clark Valley Lease Lands. Lessee shall use the Clark Valley Lease Lands, the Leased Water Rights and the Grazing Rights at its own risk, and hereby releases Lessor, to the full extent permitted by law, from all claims of every kind or nature, including claims for loss of life, personal or bodily injury, or property damage.

3.13 Enforcement. If any action is brought to recover any rent under this Lease, or because of any breach of or to enforce or interpret any of the provisions of this Lease, or for recovery of possession of the Clark Valley Lease Lands, the party prevailing in such action shall be entitled to recover from the other party reasonable attorney's fees (including those incurred in connection with any appeal), the amount of which shall be fixed by the court and made a part of any judgment rendered.

3.14 Notices. Any notice required or permitted hereunder to be given or transmitted between the parties shall be either personally delivered or mailed, postage prepaid by certified or registered mail, addressed as follows:

TO LESSOR: President
 Ark Land Company
 CityPlace One
 Suite 300
 St. Louis, MO 63141-7056

With a copy to: Canyon Fuel Company, L.L.C.
 Soldier Canyon Mine
 P. O. Box 1029
 Wellington, UT 84542
 Attn: David G. Spillman
 (435) 636-2872

TO LESSEE: Milton and Ardith Thayn Trust
 7730 East Highway 6
 Price, Utah 84501
 Attn: David Thayn
 (435) 472-4751

Any notice which is mailed shall be effective on receipt as evidenced by the registration certificate. Either party may, by notice to the other given as prescribed in this Section 3.14, change the above address for any future notices which are mailed under this Lease.

3.15 Liens and Encumbrances. Lessor shall keep the Clark Valley Lease Lands, Leased Water Rights, and Grazing Rights, free of all liens and encumbrances of every nature and kind arising after the Effective Date and shall proceed with all diligence to contest or discharge any lien or encumbrance that is filed or claimed.

3.16 Miscellaneous.

- (a) Neither this instrument nor any memorandum or notice concerning the same shall be recorded without the prior written consent of Lessor. Lessor may, at its option and at any time, file this Lease or a notice or short form concerning the same (which said notice or short form Lessee hereby agrees to execute upon Lessor's request) for record in Carbon County, Utah.
- (b) The captions which precede the sections of this Lease are for convenience only and shall in no way affect the manner in which any provision hereof is construed.
- (c) There are no representations or agreements between the parties except as set forth in this Lease, and this Lease supersedes any and all prior negotiations, agreements, or understandings between Lessor and Lessee in any way related to the subject matter hereof. None of the provisions of this Lease may be altered or modified except through an instrument in writing signed by both parties.
- (d) The liability of each person executing and delivering this Lease shall be joint and several. Each provision of this Lease to be performed by Lessee shall be construed to be both a covenant and a condition. To the extent permitted by the provisions hereof, all reservations, terms, conditions, and covenants herein contained shall be binding upon and shall inure to the benefit of the respective heirs, personal representatives, successors, and assigns of the parties hereto.
- (e) Time is of the essence to the provisions of this Lease. Any waiver, either express or implied, by Lessor or any breach by Lessee of any promise, condition or term hereof shall not be construed or claimed to be a waiver of any other breach of any condition, promise, or term of this Lease.
- (f) Nothing in this Lease shall, nor shall it be interpreted to, amend, modify or waive any provision of the Surface Use Agreement. Except for the express provision to make the Rental Payments under Section 3.2(b), any default under or termination of this Lease shall not affect in any manner the terms, conditions or validity of the Surface Use Agreement, it being the intent and understanding of the parties that the Surface Use Agreement and this Lease shall constitute separate and independent legal agreements, enforceable in accordance with their respective terms.

IN WITNESS WHEREOF the parties hereto have executed this Lease as of the Effective Date.

LESSOR:

LESSEE:

CANYON FUEL COMPANY, L.L.C.

MILTON AND ARDITH THAYN TRUST

By _____
Its _____

By _____
Its Trustee

STATE OF UTAH)
)ss:
COUNTY OF _____)

The foregoing instrument was acknowledged before me this ___ day of _____, by _____, who being by me duly sworn did say that he is the _____ of Canyon Fuel Company, L.L.C., and that the foregoing Lease was signed on behalf of said limited liability company.

NOTARY PUBLIC

Residing at: _____

My Commission Expires:

STATE OF UTAH)
)ss:
COUNTY OF CARBON)

The foregoing instrument was acknowledged before me this ___ day of _____, by

_____, the signer of the foregoing Lease, who duly acknowledged to me that he executed the same as Trustee of and for the benefit of the Milton and Ardith Thayne Trust.

NOTARY PUBLIC

Residing at: _____

My Commission Expires:

EXHIBIT "A"
to
Lease Agreement

CLARK VALLEY LEASE LANDS

(approximately 4,461 acres):

<u>Township</u>	<u>Range</u>	<u>Section</u>	<u>Description</u>
14 South	12 East	3	S½SE¼; S½SW¼
"	"	5	S½SE¼
"	"	8	NE¼NE¼; W½NE¼; SW¼; E½NW¼
"	"	9	SE¼
"	"	10	E½; SW¼; E½NW¼; SW¼NW¼
"	"	11	SE¼; NE¼; E½SE¼; SW¼SE¼; W½
"	"	13	W½; SW¼; S½NW¼; NE¼SW¼
"	"	14	All
"	"	15	E½; SW¼; E½NW¼
"	"	17	NW¼; SE¼; E½SW¼; NW¼SW¼
"	"	18	E½NE¼
"	"	20	N½NE¼
"	"	21	NE¼NW¼; W½NW¼; SE¼NE¼
"	"	22	NW¼

CLARK VALLEY WATER RIGHTS

Water Right No.
(Irrigation &
Stockwatering)

91-23
91-85
91-86
91-409
91-457

Water Right No.
(Stockwatering)

91-410 91-447
91-411 91-448
91-412 91-449
91-413 91-450
91-414 91-451

**Exhibit A
to Lease Agreement**

<u>Water Right No. (Irrigation & Stockwatering)</u>	<u>Water Right No. (Stockwatering)</u>	
91-491	91-415	91-452
91-492	91-416	91-453
91-493	91-417	91-456
91-494	91-418	91-458
91-495	91-419	91-459
91-604	91-420	91-460
91-605	91-421	91-461
91-606	91-422	91-465
91-607	91-426	91-466
	91-427	91-467
	91-428	91-468
	91-429	91-469
	91-430	91-470
	91-443	91-591
	91-444	91-3729
	91-445	91-3730
	91-446	

GRAZING RIGHTS

BLM Grazing Allotment #4079 (North Clark Valley) Approx. (Acreage 9,480)
Period of Use - March 20th-June 5th

State Grazing Permit #22966 (Replacing Permit #21722) (Approx. Acreage 680)

WATER SHARES

50 Shares of water stock in The Wellington Canal Company from Certificate No. 881

cc

Canyon Fuel Company LLC
6955 Union Park Center, Suite 540
Midvale, Utah 84047

RE: Soldier Canyon Mine
Dugout Canyon Mine

Gentlemen:

The Milton and Ardith Thayn Trust ("Trust") is the record title owner of the surface to the lands described below that cover or otherwise relate to coal leases Canyon Fuel Company now or in the future intends to develop ("Lands"):

T13S, R12 E, Salt Lake Meridian, Utah

Sec. 12: E/2 SE/4;
Sec. 13: E/2; SE/4 NW/4; E2 SW/4; NW/4 SW/4;
Sec. 24: All;
Sec. 25: NW/4.

T13S, R13 E, Salt Lake Meridian, Utah

Sec. 7: S/2SW/4, NW/4SW/4;
Sec. 18: S/2, NW/4, S/2NE/4, NW/4NE/4;
Sec. 17: SW/4, S/2SE/4, NW/4SE/4;
Sec. 19: All Except Lot 4;
Sec. 20: All;
Sec. 21: S/2, S/2N/2, NW/4NW/4;
Sec. 22: SW/4, S/2NW/4;
Sec. 27: W/2;
Sec. 28: All;
Sec. 29: All;
Sec. 30: All Except Lots 1 and 2;
Sec. 33: N/2N/2.

Subject to the Surface Use Agreement dated effective November 22, 1999, between the parties, the Trust hereby consents to Canyon Fuel's underground mining activities below the Lands and access to the surface to repair subsidence.

Very truly yours,

Milton and Ardith Thayn Trust

By: Milton Thayn

FIRST AMENDMENT TO SURFACE USE AGREEMENT

THIS FIRST AMENDMENT TO SURFACE USE AGREEMENT ("Amendment"), dated effective as of 13 August, 2001, is by and between Canyon Fuel Company, L.L.C. ("CFC") and Milton and Ardith Thayn Trust ("Thayn").

Recitals

A. The parties have entered into that certain Surface Use Agreement dated as of November 22, 1999, between CFC and Thayn ("Surface Use Agreement"). All capitalized terms used in this Amendment, unless otherwise defined herein, shall have the meanings assigned to them in the Surface Use Agreement

B. The parties now desire to amend the Surface Use Agreement consistent with the terms of this Amendment.

Amendment

NOW, THEREFORE, for good and valuable consideration, the parties agree as follows:

1. The Surface Use Agreement is amended by addition of the following provisions:

a. Water Purchases. CFC may, at its option any time during the term of the Surface Use Agreement, purchase water from Thayn, for which Thayn holds beneficial use rights or otherwise controls, to conduct any of the activities permitted by the Surface Use Agreement on the Thayn Lands. CFC and Thayn will cooperate to make necessary filings with the Utah State Engineer to facilitate such water uses. The purchase price for the water is \$.0125/ gallon and will be adjusted as provided in subparagraph (d) below. Thayn may determine at its discretion when water is available for purchase by CFC and CFC will be responsible for all costs and expenses to deliver the water to the location of usage. The purchase price for the water shall have no bearing on future determinations of the value of the Thayn water rights or water used on the Thayn Lands.

b. Interference with Hunting Activities.

(i) CFC will reimburse Thayn in an amount not to exceed \$10,000 annually for the loss of any revenue incurred by Thayn as a result of interference with, or the inability to conduct, deer and elk hunting and guide services on the Thayn Lands by Thayns' outfitters due to exploration or production drilling conducted by or on behalf of CFC on the Thayn Lands. For purposes of this provision, the deer hunting season includes the muzzle load, archery and rifle hunts. Thayn will provide CFC with a written claim for lost revenue describing the basis for the claim no later than 30 days after the end of a hunting season. The parties agree that the actual presence and ongoing operation of a drilling rig on the Thayn Lands during the elk or the deer hunting seasons will automatically constitute interference with hunting activities. In such event, upon written notice from Thayn, Arch will pay to Thayn \$3750 for the deer hunt season and \$3750 for the elk hunt season respectively impacted by the presence and operation of a drilling rig. Arch's maximum liability under this provision for each hunting season shall not

exceed \$5,000 for the elk hunt and \$5,000 for the deer hunt. The reimbursement payment will be readjusted as provided in subparagraph (d) below. Thayn acknowledges that the payment provided represents fair and reasonable compensation and Thayn waives any and all other claims against CFC for alleged damages arising out of interference with deer and elk hunting and guide services on the Thayn Lands.

(ii) CFC and Thayn have jointly established a 100-yard non-hunting buffer zone surrounding any drilling rig or active drilling operations. Thayn will inform hunters on the Thayn Lands of actual drilling locations and operations in an effort to create a safe operations buffer zone. CFC will prohibit its employees and employees of its contractors from carrying firearms, including muzzle loaders, archery equipment and rifles during the hunting seasons. Only road use necessary to conduct Arch's operations and activities under the Surface Use Agreement will be allowed during the elk and deer hunting seasons on the Thayn Lands in an effort to maintain a quality hunting environment.

c. Rezoning. Thayn will support and not oppose any rezoning of the Thayn Lands that is required by or results from mining or oil and gas operations conducted on the Thayn Lands, provided, however, that CFC will reimburse Thayn for all additional taxes, or other costs and expenses, incurred by Thayn as a result of such rezoning.

d. Adjustments to Payments.

(i) The purchase price for the water described in subparagraph (a) will be adjusted for inflation on the fifth annual anniversary date after the Effective Date, and every five years thereafter on the anniversary of the Effective Date based on the cumulative changes in the Consumer Price Index (CPI), or other generally-recognized economic pricing index, for the preceding five-year period.

(ii) The reimbursement payment described in subparagraph (b) will be adjusted for inflation on the fourth annual anniversary date after the Effective Date, and every four years thereafter on the anniversary of the Effective Date based on the then current fee arrangement with Thayn or on a written bona fide offer from a hunting outfitter who, if required by state law, is licensed. Allocation of the reimbursement payment between the deer and elk hunts shall be based on the terms of the offer.

(iii) The proposed adjustment shall be calculated by CFC and communicated to Thayn in writing within thirty (30) days after the applicable anniversary date. All adjustments shall be effective as of the then applicable anniversary date and shall otherwise apply prospectively and shall not apply to payments previously made under this Amendment.

2. Except as expressly provided in this Amendment, nothing herein shall, nor be interpreted to, amend, modify or waive any provision of the Surface Use Agreement. The parties acknowledge that the Surface Use Agreement is in full force and effect and currently in good standing. This Amendment may be executed in counterparts by the parties.

Executed and dated as of the Effective Date.

Canyon Fuel Company, L.L.C.

Milton and Ardith Thayn Trust

By: _____
Its: _____

By: George M Thayn

SECOND AMENDMENT TO SURFACE USE AGREEMENT

THIS SECOND AMENDMENT TO SURFACE USE AGREEMENT ("Second Amendment"), dated effective as of September 1, 2004 ("Effective Date"), is by and between Ark Land Company, ("Ark Land"), whose mailing address is One CityPlace Drive, Suite 300, St. Louis, MO 63141, and Milton and Ardith Thayn Trust ("Thayn"), whose mailing address is 7730 East Hwy 6, Pricc, Utah 84501.

Recitals

A. Canyon Fuel Company, L.L.C. ("CFC"), an affiliate of Ark Land, and Thayn entered into a Surface Use Agreement dated as of November 22, 1999 ("Agreement"). The Agreement was amended by a First Amendment to Surface Use Agreement dated effective as of August 13 2001. All capitalized terms used in this Second Amendment, unless otherwise defined herein, shall have the meanings assigned to them in the Agreement, as amended.

B. By Assignment dated as of the Effective Date, CFC assigned to Ark Land all right, title and interest in, to and under the Agreement.

C. The parties now desire to amend the Agreement consistent with and as set forth in this Second Amendment.

Amendment

NOW, THEREFORE, for and in consideration of Ten Dollars and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties agree as follows:

1. The Agreement is hereby amended by adding the following provisions:

a. Vent Fan Easement.

(i) In addition to the surface use grant in favor of Ark Land under Section 2 of the Agreement, Thayn hereby grants to Ark Land an exclusive easement on, over, across, under and through the Thayn Lands, as more specifically described on the plat map attached hereto as Exhibit A ("Easement"), for access to construct, maintain, utilize, repair and reclaim a mine vent fan and all surface structures related to a mine vent fan and an associated air intake (collectively "Vent Fan") to be located on lands adjacent to the Thayn Lands and for access to provide water, power and communication facilities to, in association with and for the benefit of the Vent Fan ("Vent Fan Facilities"). Third Parties providing services for Vent Fan Facilities shall have the non-exclusive right to use the Easement under the same terms and conditions as Ark Land's designation. The Easement shall have a term that runs concurrent with the term of the Agreement, provided, however, that upon termination of the Agreement, Ark Land, at its sole option, may elect to extend the term of the Easement for an additional five (5) year period upon 30-days prior written notice to Thayn. In such event, Thayn shall execute an independent instrument susceptible to recording in the records of the Carbon County Recorder evidencing the Easement under the extended term.

(ii) Upon execution of this Second Amendment, and thereafter on or before the anniversary of the Effective Date hereof and so long as the Easement remains in effect, Ark Land shall pay to Thayn the sum of Thirty Thousand Dollars (\$30,000) ("Easement Payment"). Thayn acknowledges that the Easement Payment represents full and fair compensation for the grant of the Easement, placement of the Vent Fan adjacent to the Thayn Lands, and placement of the Vent Fan Facilities on, over, across, under or through the Easement. Thayn disclaims and hereby waives any and all further claims and causes of action for compensation or damages arising out of or relating to use of the Easement and the placement, use, operation, repair and reclamation of the Vent Fan and the Vent Fan Facilities, including, without limitation, claims based on alleged noise, visual or environmental pollution or nuisance. In particular, without limitation, the placement, use, operation, repair and reclamation of the Vent Fan and the Vent Fan Facilities shall not constitute the basis for any claim for interference with the use and enjoyment of the Thayn Lands including hunting activities described in the First Amendment.

(iii) Thayn hereby concurs with, joins in and ratifies, and shall provide such further assurances as necessary for, any and all permits and authorizations necessary or required by applicable regulatory authority to permit the construction, repair, use and reclamation of the Vent Fan and Vent Fan Facilities. Thayn shall not oppose any permit, application or plan involving the Vent Fan or Vent Fan Facilities.

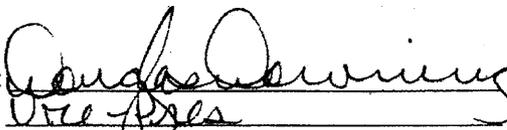
2. Thayn consents to the assignment from CFC to Ark Land and fully recognizes Ark Land as the legal successor to CFC under the Agreement. Thayn represents that the Agreement is in full force and effect and in good standing, is not subject to any defaults or activities or events of which Thayn is aware which could result in a default, and that all payments due under the Agreement have been timely and properly made.

3. Except as expressly provided in this Second Amendment, nothing herein shall, nor shall it be interpreted to, amend, modify or waive any provision of the Agreement.

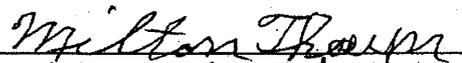
4. This Second Amendment may be executed in counterparts by the parties.

Executed and dated as of the Effective Date.

ARK LAND COMPANY

By: 
Its: Vice Pres

MILTON AND ARDITH THAYN TRUST

By: 
Name: Milton and Ardith Thayne TRUST

STATE OF Missouri
COUNTY OF St. Louis)ss.

The foregoing instrument was acknowledged before me by Douglas Downing
the Vice President of Ark Land Company.

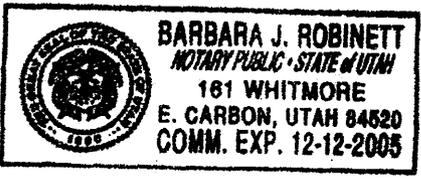


MARY C. HAMILTON
St. Louis City
My Commission Expires
September 14, 2007

Mary C. Hamilton
Notary Public

STATE OF Utah)
COUNTY OF Carbon)ss.

The foregoing instrument was acknowledged before me by Milton Thayne as
Representative of the Milton and Ardith Thayne Trust.



Barbara J. Robinett
Notary Public

APPENDIX 5-6

Reclamation Bond Estimate

Bonding Calculations

Direct Costs

Subtotal Demolition and Removal	\$862,899.00
Subtotal Backfilling and Grading	\$551,461.00
Subtotal Revegetation	\$383,995.00
Direct Costs	\$1,798,355.00

Indirect Costs

Mob/Demob	\$179,836.00	10.0%
Contingency	\$89,918.00	5.0%
Engineering Redesign	\$44,959.00	2.5%
Main Office Expense	\$122,288.00	6.8%
Project Mainagement Fee	\$44,959.00	2.5%
Subtotal Indirect Costs	\$481,960.00	26.8%

Total Cost	\$2,280,315.00
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Escalation factor	0.0259
Number of years	2
Escalation	\$119,650.00

Reclamation Cost Escalated	\$2,399,965.00
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Bond Amount (rounded to nearest \$1,000) 2005 Dollars	\$2,400,000.00
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Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swall Factor	Quantity	Unit	Cost	
	Mine Belt BC-1 No 1																			15483	
	Transfer Building No 2																			27938	
	Feed Belt BC 2 No3																			10846	
	Stack Tubes 2 No4																			3175	
	Head House 1 No 5																			5248	
	Transfer Belt BC 2 No 6																			9827	
	Head House 2 No 7																			1389	
	Reciam Tunnel No 8																			29098	
	Reciam Belt BC 4 No 9																			9755	
	Escape Tunnel 06 Inch No 10																			780	
	Crusher Building No 11																			25398	
	Truck Loadout Belt BC 5 No 12																			7958	
	Truck Loadout and Scale No 13																			20600	
	Bathhouse No 14																			111344	
	Substation No 15																			1489	
	Power Lines and Poles No 16																			1958	
	Retaining Wall No 17																			603	
	Gabion Wall No 18																			57513	
	Pump House No 19																			2315	
	Paved Road No 20																			56520	
	Stream Culvert 72 Inch No 21																			45027	
	Water Tanks No 22																			2889	
	Rock Dust Bin No 23																			915	
	Fuel Tank and Fuel Station No 24																			1338	
	Holding Tank No 25																			318	
	Ventilation Fan No 26																			1842	
	Magnet 27																			434	
	Water System 28																			71041	
	Sewage System 29																			23808	
	Item 30 removed																				
	Storage Containers 31																			7560	
	Glison Well No 32																			1294	
	Shop Building No 33																			4014	
	Switch House No 34																			889	
	Portals No 35																			26000	
	Storage Building No 36																			1531	
	Sampling System No 37																			1260	
	Deegas Well G4 No 38																			7609	
	Deegas Well G2 No 39																			18840	
	Deegas Well G3 No 40																			13095	
	Spoker Storage Bin No 41																			711	
	Substation No 2 No 42																			2194	
	Gabion Baskets No 43																			870	
	Mendane Deegas Walls 45																			147892	
	Deegas Well G 6 MW 06																			9897	
	Deegas Well G 5 MW 05																			10291	
	Place Fan Culvert																			1248	
	Place Fan Generator																			48785	
	Place Fan Portal																			5200	
	Refuse Site No 44																			9490	
	Total																			522959	

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Mine Belt BC-1 No 1																			
	Structure's Demolition Cost	Steel Bld. Large	02220 110 0012	0.2	/CF						62800					CF		62800	CF	12560
	Structure's Vol. Demolished																	814	CF	
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity											52				TON		52	TON	
	Haulage																			
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.96	/day									3.3		DAY		3.3	DAY	1439
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trhv	\$42.00	HR									26		HR		26	HR	1092
	Disposal Cost Steel																			
	Subtotal																			15091
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete demolition	ConcreteDemo1	3.97	/CY						20					CY		20	CY	79
	Concrete's Vol. Demolished																	26	CY	
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY													26	CY	36
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rd. trj	02315 490 0320	3.44	/CY													26	CY	89
	Disposal Costs	On site disposal	02220 240 5550	7.6	/CY													26	CY	198
	Subtotal																			402
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			15493

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	
	Transfer Building No 2																				
	Structure's Demolition Cost	Steel Bld. Large	02220 110 0012	0.2	/CF						104618					CF		104618	CF	20924	
	Structure's Vol. Demolished																0.35	1356	CY		
	Rubble's Weight (exclude steel)																				
	Truck's Capacity																				
	Haulage																				
	Transportation Cost Non Steel Truck																				
	Transportation Cost Non Steel Drive																				
	Disposal Cost Non Steel																				
	Steel's Weight											50				TON		50	TON		
	Truck's Capacity																				
	Haulage																				
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.96	/day											DAY		3.1	DAY	1351	
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trfw	\$42.00	HR											HR		25	HR	1050	
	Disposal Cost Steel																				
	Subtotal																			2325	
	Equipment's Disposal Cost																				
	Dismantling Cost																				
	Equipment's Vol. Demolished																				
	Loading Costs																				
	Transport Costs																				
	Disposal Costs																				
	Subtotal																				
	Concrete Demolition																				
	Demolition Cost	Concrete demolition	ConcreteDemo 1	3.97	/CY						229					CY		229	CY	909	
	Concrete's Vol. Demolished																1.3	298	CY		
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY														298	CY	414
	Transportation Cost	12 CY (18 Ton) Dump Truck 1/2 mi. rd. tri	02315 490 0320	3.44	/CY														298	CY	1025
	Disposal Costs	On site disposal	02220 240 5550	7.6	/CY														298	CY	2265
	Subtotal																			4813	
	Concrete Demolition																				
	Demolition Cost																				
	Concrete's Vol. Demolished																				
	Loading Cost																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				
	Concrete Demolition																				
	Demolition Cost																				
	Concrete's Vol. Demolished																				
	Loading Cost																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				
	Total																			4798	

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Feed Belt BC 2 No3																			
	Structure's Demolition Cost	Steel Bld. Large	02220 110 0012	0.2	/CF						47438					CF		47438	CF	9488
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																0.35	615	CY	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity															TON		30	TON	
	Haulage																			
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.98	/day															
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trhv	\$42.00	HR															
	Disposal Cost Steel																			
	Subtotal																			10048
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			10048

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Stack Tubes 2 No4																			
	Structure's Demolition Cost																			
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete demolition	ConcreteDemo 1	3.97	/CY						158					CY		158	CY	627
	Concrete's Vol. Demolished																1.3	205	CY	
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY													205	CY	285
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. tr	02315 490 0320	3.44	/CY													205	CY	705
	Disposal Costs	On site disposal	02220 240 5550	7.6	/CY													205	CY	1558
	Subtotal																			3178
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			3178

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Head House 1 No 5																			
	Structure's Demolition Cost	Steel Bld. Large	02220 110 0012	0.2	/CF						23878					CF		23878	CF	4776
	Structure's Vol. Demolished																0.35	310	CY	
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight											10				TON		10	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.96	/day										0.6	DAY		0.6	DAY	282
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Triv	\$42.00	HR										5	HR		5	HR	210
	Disposal Cost Steel																			
	Subtotal																			6228
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			6228

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Transfer Belt BC 2 No 6																			
	Structure's Demolition Cost	Steel Bld. Large	02220 110 0012	0.2	/CF						30000					CF		30000	CF	6000
	Structure's Vol. Demolished																0.35	389	CY	
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight											20				TON		20	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.96	/day									1.3		DAY		1.3	DAY	567
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trfv	\$42.00	/HR									10		HR		10	HR	420
	Disposal Cost Steel																			
	Subtotal																			6067
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			6067

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Head House 2 No 7																			
	Structure's Demolition Cost	Steel Bld. Large	02220 110 0012	0.2	/CF						4438					CF		4438	CF	887
	Structure's Vol. Demolished																0.35	58	CY	
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight											10				TON		10	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.96	/day									0.6		DAY		0.6	DAY	262
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trfv	\$42.00	HR									5		HR		5	HR	210
	Disposal Cost Steel																			
	Subtotal																			356
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			1896

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Reclaim Tunnel No 8																			
	Structure's Demolition Cost	Steel Bld. Large	02220 110 0012	0.2	/CF						18774					CF		18774	CF	3755
	Structure's Vol. Demolished																0.35	243	CY	
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight											32				TON		32	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.96	/day										2	DAY		2	DAY	872
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trhv	\$42.00	/HR										16	HR		16	HR	672
	Disposal Cost Steel																			
	Subtotal																			208
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete demolition	ConcreteDemo1	3.97	/CY						1182					CY		1182	CY	4693
	Concrete's Vol. Demolished																1.3	1537	CY	
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY													1537	CY	2136
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rd. tri	02315 490 0320	3.44	/CY													1537	CY	5287
	Disposal Costs	On site disposal	02220 240 5550	7.6	/CY													1537	CY	11681
	Subtotal																			23192
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			23004

Ref.	Description	Materials	Mearns Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Reclaim Belt BC 4 No 9																			
	Structure's Demolition Cost	Steel Bld. Large	02220 110 0012	0.2	/CF						35180					CF		35180	CF	7036
	Structure's Vol. Demolished																0.35	456	CY	
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity											40				TON		40	TON	
	Haulage																			
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.96	/day									2.5		DAY		2.5	DAY	1090
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trhw	\$42.00	HR									20		HR		20	HR	840
	Disposal Cost Steel																			
	Subtotal																			6096
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete demolition	ConcreteDemo1	3.97	/CY						39					CY		39	CY	155
	Concrete's Vol. Demolished																1.3	51	CY	
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY													51	CY	71
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. tri	02315 480 0320	3.44	/CY													51	CY	175
	Disposal Costs	On site disposal	02220 240 5550	7.6	/CY													51	CY	388
	Subtotal																			789
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			9731

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	
	Escape Tunnel 60 inch No 10																				
	Structure's Demolition Cost	Steel Bld. Large	02220 110 0012	0.2	/CF						2827					CF		2827	CF	585	
	Structure's Vol. Demolished																0.35	37	CY		
	Rubble's Weight (exclude steel)																				
	Truck's Capacity																				
	Haulage																				
	Transportation Cost Non Steel Truck																				
	Transportation Cost Non Steel Drive																				
	Disposal Cost Non Steel																				
	Steel's Weight											4				TON		4	TON		
	Truck's Capacity																				
	Haulage																				
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.96	/day									0.3		DAY		0.3	DAY	131	
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trfw	\$42.00	HR									2		HR		2	HR	84	
	Disposal Cost Steel																				
	Subtotal																				790
	Equipment 's Disposal Cost																				
	Dismantling Cost																				
	Equipment 's Vol. Demolished																				
	Loading Costs																				
	Transport Costs																				
	Disposal Costs																				
	Subtotal																				
	Concrete Demolition																				
	Demolition Cost																				
	Concrete's Vol. Demolished																				
	Loading Cost																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				
	Concrete Demolition																				
	Demolition Cost																				
	Concrete's Vol. Demolished																				
	Loading Cost																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				
	Total																				790

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Crusher Building No 11																			
	Structure's Demolition Cost	Steel Bld. Large	02220 110 0012	0.2	/CF						93305					CF		93305	CF	18661
	Structure's Vol. Demolished																0.35	1210	CY	
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight											100				TON		100	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.98	/day									6.3		DAY		6.3	DAY	2747
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trhw	442.00	/HR									50		HR		50	HR	2100
	Disposal Cost Steel																			
	Subtotal																			22608
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete demolition	ConcreteDemo1	3.97	/CY						91					CY		91	CY	361
	Concrete's Vol. Demolished																1.3	118	CY	
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY													118	CY	164
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rd. tri	02315 490 0320	3.44	/CY													118	CY	406
	Disposal Costs	On site disposal	02220 240 5550	7.8	/CY													118	CY	887
	Subtotal																			1828
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			25356

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Truck Loadout Belt BC 5 No 12																			
	Structure's Demolition Cost	Steel Bld. Large	02220 110 0012	0.2	/CF						30899					CF		30899	CF	6180
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																0.35	401	CY	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight											20				TON		20	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.96	/day										1.3	DAY		1.3	DAY	567
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trhrv	\$42.00	HR										10	HR		10	HR	420
	Disposal Cost Steel																			
	Subtotal																			7167
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete demolition	ConcreteDemo1	3.97	/CY						39					CY		39	CY	155
	Concrete's Vol. Demolished																1.3	51	CY	
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY															71
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rd. tri	02315 490 0320	3.44	/CY															175
	Disposal Costs	On site disposal	02220 240 5550	7.6	/CY															388
	Subtotal																			786
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			7526

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Truck Loadout and Scale No 13																			
	Structure's Demolition Cost	Steel Bld. Large	02220 110 0012	0.2	/CF						74976					CF		74976	CF	14995
	Structure's Vol. Demolished																0.35	972	CY	
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight											50				TON		50	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.96	/day									3.1		DAY		3.1	DAY	1351
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trfw	\$42.00	HR									25		HR		25	HR	1050
	Disposal Cost Steel																			
	Subtotal																			17386
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete demolition	ConcreteDemo1	3.97	/CY						159					CY		159	CY	631
	Concrete's Vol. Demolished																1.3	207	CY	
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY													207	CY	288
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. tri	02315 490 0320	3.44	/CY													207	CY	712
	Disposal Costs	On site disposal	02220 240 5550	7.6	/CY													207	CY	1573
	Subtotal																			3204
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			20600

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Bathhouse No 14																			
	Structure's Demolition Cost	Steel Bld. Large	02220 110 0012	0.2	/CF						416365					CF		416365	CF	83273
	Structure's Vol. Demolished																0.2	3084	CY	
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel	City Services	City Service Price	4	/CY													3084	CY	12338
	Steel's Weight											107								
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.96	/day									6.7		DAY		6.7	DAY	2921
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trhvv	\$42.00	HR									54		HR		54	HR	2268
	Disposal Cost Steel																			
	Subtotal																			100798
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete demolition	ConcreteDemo1	3.97	/CY						524					CY		524	CY	2080
	Concrete's Vol. Demolished																1.3	681	CY	
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY													681	CY	947
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. tri	02315 490 0320	3.44	/CY													681	CY	2343
	Disposal Costs	On site disposal	02220 240 5550	7.6	/CY													681	CY	5176
	Subtotal																			10646
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			11844

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	
	Substation No 15																				
	Structure's Demolition Cost	Steel Bld. Large	02220 110 0012	0.2	/CF						4000					CF		4000	CF	800	
	Structure's Vol. Demolished																0.35	52	CY		
	Rubble's Weight (exclude steel)																				
	Truck's Capacity																				
	Haulage																				
	Transportation Cost Non Steel Truck																				
	Transportation Cost Non Steel Drive																				
	Disposal Cost Non Steel	City Services	City Service Price	4	/CY														52	CY	208
	Steel's Weight																				
	Truck's Capacity																				
	Haulage																				
	Transportation Cost Steel Truck																				
	Transportation Cost Steel Truck Drive																				
	Disposal Cost Steel																				
	Subtotal																			1008	
	Equipment's Disposal Cost																				
	Dismantling Cost																				
	Equipment's Vol. Demolished																				
	Loading Costs																				
	Transport Costs																				
	Disposal Costs																				
	Subtotal																				
	Concrete Demolition	Concrete demolition	ConcreteDemo1	3.97	/CY						24					CY		24	CY	95	
	Demolition Cost																				
	Concrete's Vol. Demolished																1.3	31	CY	43	
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY														31	CY	107
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rd. ltr	02315 490 0320	3.44	/CY														31	CY	236
	Disposal Costs	On site disposal	02220 240 5550	7.6	/CY														31	CY	451
	Subtotal																				
	Concrete Demolition																				
	Demolition Cost																				
	Concrete's Vol. Demolished																				
	Loading Cost																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				
	Concrete Demolition																				
	Demolition Cost																				
	Concrete's Vol. Demolished																				
	Loading Cost																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				
	Total																			1480	

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Substation No 15																			
	Structure's Demolition Cost	Steel Bld. Large	02220 110 0012	0.2	/CF						4000					CF		4000	CF	800
	Structure's Vol. Demolished																0.35	52	CY	
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel	City Services	City Service Price	4	/CY													52	CY	208
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			1008
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete demolition	ConcreteDemo1	3.97	/CY						24					CY		24	CY	95
	Concrete's Vol. Demolished																1.3	31	CY	
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY														31	CY
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 ml. md. tri	02315 490 0320	3.44	/CY														31	CY
	Disposal Costs	On site disposal	02220 240 5550	7.6	/CY														31	CY
	Subtotal																			236
	Subtotal																			481
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			1488

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Power Lines and Poles No 16																			
	Structure's Demolition Cost	Dugout Powerline	Dugout 1	0.23	/FT	1937										FT		1937	FT	446
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			446
	Power Poles																			
	Equipment's Disposal Cost	Dugout Power Poles	Dugout 2	126	/EA											EA		12	EA	1512
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			1512
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			658

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Retaining Wall No 17																			
	Structure's Demolition Cost																			
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete demolition	ConcreteDemo1	3.97	/CY						30					CY		30	CY	119
	Concrete's Vol. Demolished																1.3	39	CY	
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY													39	CY	54
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rd. tri	02315 490 0320	3.44	/CY													39	CY	134
	Disposal Costs	On site disposal	02220 240 5550	7.8	/CY													39	CY	296
	Subtotal																			803
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			803

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Gabion Wall No 18																			
	Structures Volume										880					CY				
	Demolition Time 60 CY/ DAY														117	HR				
	Structure's Demolition Cost	Crew B 13	MeansCrewB13	395.16														117	HR	46234
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)													2		TON/CY		1760	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.96	/day									14.6		DAY		14.6	DAY	6365
	Transportation Cost Non Steel Drive	Truck Driver, Heavy	Triv	\$42.00	HR									117		HR		117	HR	4914
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			67613
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			57613

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Pump House No 19																			
	Structure's Demolition Cost	Steel Bld. Large	02220 110 0012	0.2	/CF						2219					CF		2219	CF	444
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight											5				TON		5	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.96	/day									0.3		DAY		0.3	DAY	131
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trfv	\$42.00	HR									2		HR		2	HR	84
	Disposal Cost Steel																			
	Subtotal																			668
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete demolition	ConcreteDemo1	3.97	/CY						82					CY		82	CY	326
	Concrete's Vol. Demolished																1.3	107	CY	
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY													107	CY	149
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 ml. rd. tri	02315 490 0320	3.44	/CY													107	CY	368
	Disposal Costs	On site disposal	02220 240 5550	7.6	/CY													107	CY	813
	Subtotal																			1986
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			2315

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Paved Road No 20																			
	Structure's Demolition Cost																			
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Asphalt Demolition																			
	Demolition Cost	Pavement Removal 4-6"	02220 250 5050	6.55	/SY					8448						SY		8448	SY	55334
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs	On site disposal	02220 240 5550	7.6	/CY						156					CY		156	CY	1166
	Subtotal																			16820
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			56820

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Stream Culvert 72 inch No 21																			
	Excavate Culvert	Excavation Bulk Bank 2 CY (322BL)	02315 424 0260	1.7	/CY	2350	12	12								CF		12533	CY	21306
	Backfill Culvert	Backfill Trench Minimal Haul 2 1/4 CY	02315 610 3080	1.53	/CY	2350	12	12								CF		12533	CY	19175
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight											94				TON		94	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.96	/day									5.9		DAY		5.9	DAY	2572
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trivv	\$42.00	HR									47		HR		47	HR	1974
	Disposal Cost Steel																			
	Subtotal																			15027
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			15027

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	
	Water Tanks No 22																				
	Structure's Demolition Cost	Steel Bld. Large	02220 110 0012	0.2	/CF						241					CF		241	CF	48	
	Structure's Vol. Demolished																	0.35	3	CY	
	Rubble's Weight (exclude steel)																				
	Truck's Capacity																				
	Haulage																				
	Transportation Cost Non Steel Truck																				
	Transportation Cost Non Steel Drive																				
	Disposal Cost Non Steel																				
	Steel's Weight																				
	Truck's Capacity											39				TON		39	TON		
	Haulage																				
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.96	/day										2.4	DAY		2.4	DAY	1048	
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trhv	\$42.00	HR										19	HR		19	HR	788	
	Disposal Cost Steel																				
	Subtotal																				1822
	Equipment's Disposal Cost																				
	Dismantling Cost																				
	Equipment's Vol. Demolished																				
	Loading Costs																				
	Transport Costs																				
	Disposal Costs																				
	Subtotal																				
	Concrete Demolition																				
	Demolition Cost	Concrete demolition	ConcreteDemo1	3.97	/CY						50					CY		50	CY	199	
	Concrete's Vol. Demolished																	1.3	65	CY	
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY																90
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 ml. md. tri	02315 490 0320	3.44	/CY																224
	Disposal Costs	On site disposal	02220 240 5550	7.6	/CY																494
	Subtotal																				1004
	Concrete Demolition																				
	Demolition Cost																				
	Concrete's Vol. Demolished																				
	Loading Cost																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				
	Concrete Demolition																				
	Demolition Cost																				
	Concrete's Vol. Demolished																				
	Loading Cost																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				
	Total																				2886

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Rock Dust Bin No 23																			
	Structure's Demolition Cost	Steel Bld. Large	02220 110 0012	0.2	/CF						2265					CF		2265	CF	453
	Structure's Vol. Demolished																0.35	29	CY	
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight											5				TON		5	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.86	/day									0.3		DAY		0.3	DAY	131
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trfw	\$42.00	HR									2		HR		2	HR	84
	Disposal Cost Steel																			
	Subtotal																			688
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete demolition	ConcreteDemo1	3.97	/CY						12					CY		12	CY	48
	Concrete's Vol. Demolished																1.3	16	CY	
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY													16	CY	22
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. tri	02315 490 0320	3.44	/CY													16	CY	55
	Disposal Costs	On site disposal	02220 240 5550	7.8	/CY													16	CY	122
	Subtotal																			247
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			915

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	
	Fuel Tank and Fuel Station No 24																				
	Structure's Demolition Cost	Steel Bld. Large	02220 110 0012	0.2	/CF						3945					CF		3945	CF	789	
	Structure's Vol. Demolished																0.35	51	CY		
	Rubble's Weight (exclude steel)																				
	Truck's Capacity																				
	Haulage																				
	Transportation Cost Non Steel Truck																				
	Transportation Cost Non Steel Drive																				
	Disposal Cost Non Steel																				
	Steel's Weight											7				TON		7	TON		
	Truck's Capacity																				
	Haulage																				
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.96	/day									0.4		DAY		0.4	DAY	174	
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trhw	\$42.00	HR									3		HR		3	HR	129	
	Disposal Cost Steel																				
	Subtotal																			1099	
	Equipment's Disposal Cost																				
	Dismantling Cost																				
	Equipment's Vol. Demolished																				
	Loading Costs																				
	Transport Costs																				
	Disposal Costs																				
	Subtotal																				
	Concrete Demolition																				
	Demolition Cost	Concrete demolition	ConcreteDemo1	3.97	/CY						12					CY		12	CY	48	
	Concrete's Vol. Demolished																1.3	18	CY		
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY													18	CY	22	
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. tri	02315 490 0320	3.44	/CY													18	CY	55	
	Disposal Costs	On site disposal	02220 240 5550	7.6	/CY													16	CY	122	
	Subtotal																			247	
	Concrete Demolition																				
	Demolition Cost																				
	Concrete's Vol. Demolished																				
	Loading Cost																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				
	Concrete Demolition																				
	Demolition Cost																				
	Concrete's Vol. Demolished																				
	Loading Cost																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				
	Total																			1936	

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Holding Tank No 25																			
	Structure's Demolition Cost																			
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel	8000 gal. to 8000 gal. tank	02115 200 0310	232 Ea.								2			1	EA		1	EA	232
	Steel's Weight																			
	Truck's Capacity																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive	Truck dump 18 ton payload	01690 200 5300	435.96 /day										0.1	1	DAY				44
	Disposal Cost Steel	Truck Driver, Heavy	TINY	\$42.00 /HR										1	1	HR				42
	Subtotal																			318
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Truck																			

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Ventilation Fan No 26																			
	Structure's Demolition Cost	Steel Bld. Large	02220 110 0012	0.2	/CF						6850					CF		6850	CF	1370
	Structure's Vol. Demolished																0.35	89	CY	
	Rubble's Weight (exclde steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight											10				TON		10	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck	Truck dump 18 ton payload	01590 200 5300	435.96	/day									0.6		DAY		0.6	DAY	282
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trhw	\$42.00	HR									5		HR		5	HR	210
	Disposal Cost Steel																			
	Subtotal																			1842
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			1842

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Magnet 27																			
	Structure's Demolition Cost	Steel Bld. Large	02220 110 0012	0.2	/CF						35					CF		35	CF	7
	Structure's Vol. Demolished																0.35	0	CY	
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight											2				TON		2	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.96	/day									0.1		DAY		0.1	DAY	44
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Triv	\$42.00	/HR									1		HR		1	HR	42
	Disposal Cost Steel																			
	Subtotal																			63
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete demolition	ConcreteDemo 1	3.97	/CY						17					CY		17	CY	67
	Concrete's Vol. Demolished																1.3	22	CY	
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY													22	CY	31
	Transportation Cost	12 CY (18 Ton) Dump Truck 1/2 mi. rd. tri	02315 490 0320	3.44	/CY													22	CY	76
	Disposal Costs	On site disposal	02220 240 5550	7.6	/CY													22	CY	167
	Subtotal																			341
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			434

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Water System 28																			
	Excavate Pipe	Excavation Bulk Bank 2 CY (322BL)	02315 424 0260	1.7	/CY	8450	2	4								FT		2504	CY	4257
	Pipe Removal	Pipe removal 12 inch	02220 240 2900	7.45	/FT	8450										FT		8450	FT	62953
	Backfill Trench	Backfill Trench Minimal Haul 2 1/4 CY	02315 610 3080	1.53	/CY	8450	2	4								FT		2504	CY	3831
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			71041
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			71041

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Sewage System 29																			
	Excavate Pipe	Excavation Bulk Bank 2 CY (322BL)	02315 424 0260		1.7 /CY	2832	2	4								FT		839	CY	1428
	Pipe Removal	Pipe removal 12 inch	02220 240 2900		7.45 /FT	2832										FT		2832	FT	21098
	Backfill Trench	Backfill Trench Minimal Haul 2 1/4 CY	02315 610 3080		1.53 /CY	2832	2	4								FT		839	CY	1284
	Structure's Demolition Cost																			
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			23508
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			23606

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	AM01J Nov. 28, 2001																			
	Storage Containers 31																			
	Trailers N0 1																			
	Structure's Demolition Cost	Mixed Materials Bld. Large	02220 110 0100	0.21	/CF	40	10	10								8 FT		32000	CF	6720
	Structure's Vol. Demolished																0.35			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel	ECDC	ECDC	35	/TON							24						24	TON	840
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			7660
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			7560

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	
	Gilson Well No 32																				
	Structure's Demolition Cost	Steel Bid, Large	02220 110 0012	0.2	/CF						800					CF		800	CF	160	
	Structure's Vol. Demolished																0.35	10	CY		
	Rubble's Weight (exclude steel)																				
	Truck's Capacity																				
	Haulage																				
	Transportation Cost Non Steel Truck																				
	Transportation Cost Non Steel Drive																				
	Disposal Cost Non Steel																				
	Steel's Weight											0.5				TON		0.5	TON		
	Truck's Capacity																				
	Haulage																				
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.96	/day									0.03		DAY		0.03	DAY	13	
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trhw	\$42.00	HR									0.2		HR		0.2	HR	8	
	Disposal Cost Steel																				
	Subtotal																			181	
	Equipment's Disposal Cost																				
	Dismantling Cost																				
	Equipment's Vol. Demolished																				
	Loading Costs																				
	Transport Costs																				
	Disposal Costs																				
	Subtotal																				
	Concrete Demolition																				
	Demolition Cost	Concrete demolition	ConcreteDemo1	3.97	/CY						55					CY		55	CY	218	
	Concrete's Vol. Demolished																1.3	72	CY		
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY													72	CY	100	
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. tri	02315 490 0320	3.44	/CY													72	CY	248	
	Disposal Costs	On site disposal	02220 240 5550	7.8	/CY													72	CY	547	
	Subtotal																			113	
	Concrete Demolition																				
	Demolition Cost																				
	Concrete's Vol. Demolished																				
	Loading Cost																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				
	Concrete Demolition																				
	Demolition Cost																				
	Concrete's Vol. Demolished																				
	Loading Cost																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				
	Total																			284	

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	
	Shop Building No 33																				
	Structure's Demolition Cost	Steel Bld. Large	02220 110 0012	0.2	/CF						14400					CF		14400	CF	2880	
	Structure's Vol. Demolished																	0.35	187	CY	
	Rubble's Weight (exclude steel)																				
	Truck's Capacity																				
	Haulage																				
	Transportation Cost Non Steel Truck																				
	Transportation Cost Non Steel Drive																				
	Disposal Cost Non Steel																				
	Steel's Weight											0.5				TON		0.5	TON		
	Truck's Capacity																				
	Haulage																				
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.96	/day										0.03	DAY		0.03	DAY	13	
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Triv	\$42.00	HR										0.2	HR		0.2	HR	8	
	Disposal Cost Steel																				
	Subtotal																				2901
	Equipment's Disposal Cost																				
	Dismantling Cost																				
	Equipment's Vol. Demolished																				
	Loading Costs																				
	Transport Costs																				
	Disposal Costs																				
	Subtotal																				
	Concrete Demolition																				
	Demolition Cost	Concrete demolition	ConcreteDemo1	3.97	/CY						55					CY		55	CY	218	
	Concrete's Vol. Demolished																	1.3	72	CY	
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY														72	CY	100
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 ml. md. tri	02315 490 0320	3.44	/CY														72	CY	248
	Disposal Costs	On site disposal	02220 240 5550	7.6	/CY														72	CY	547
	Subtotal																				1113
	Concrete Demolition																				
	Demolition Cost																				
	Concrete's Vol. Demolished																				
	Loading Cost																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				
	Concrete Demolition																				
	Demolition Cost																				
	Concrete's Vol. Demolished																				
	Loading Cost																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				
	Total																				4014

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Switch House No 34																			
	Structure's Demolition Cost																			
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight											16				TON		16	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.96	/day										1	DAY		1	DAY	436
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trhv	\$42.00	HR										8	HR		8	HR	336
	Disposal Cost Steel																			
	Subtotal																			772
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete demolition	ConcreteDemo1	3.97	/CY						11					CY		11	CY	44
	Concrete's Vol. Demolished																	1.3	14	CY
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY														14	CY
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. tri	02315 490 0320	3.44	/CY														14	CY
	Disposal Costs	On site disposal	02220 240 5550	7.6	/CY														14	CY
	Subtotal																			106
	Subtotal																			217
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Portals No 35																			
	Structure's Demolition Cost	Seal Portals	AML1	5200	EA.										5	EA		5	EA	28000
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			28000
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			28000

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Storage Building No 36																			
	Structure's Demolition Cost	Steel Bld. Large	02220 110 0012	0.2	/CF						2284					CF		2284	CF	457
	Structure's Vol. Demolished																0.35	30	CY	
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight											6				TON		6	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.96	/day									0.4		DAY		0.4	DAY	174
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trhv	\$42.00	HR									3		HR		3	HR	128
	Disposal Cost Steel																			
	Subtotal																			787
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			787
	Concrete Demolition																			
	Demolition Cost	Concrete demolition	ConcreteDemo1	3.97	/CY						38.4					CY		38.4	CY	152
	Concrete's Vol. Demolished																1.3	50	CY	
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY													50	CY	70
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. tri	02315 490 0320	3.44	/CY													50	CY	172
	Disposal Costs	On site disposal	02220 240 5550	7.6	/CY													50	CY	380
	Subtotal																			774
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			1531

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Sampling System No 37																			
	Structure's Demolition Cost																			
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight											18				TON		18	TON	
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01580 200 5300	435.06	/day									1.1		DAY		1.1	DAY	480
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trhw	\$42.00	HR									9		HR		9	HR	378
	Disposal Cost Steel																			
	Subtotal																			858
	Equipment 's Disposal Cost																			
	Dismantling Cost																			
	Equipment 's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete demolition	ConcreteDemo1	3.97	/CY						19.84					CY		19.84	CY	79
	Concrete's Vol. Demolished																	1.3	28	CY
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY														28	CY
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. rmd. tri	02315 490 0320	3.44	/CY														28	CY
	Disposal Costs	On site disposal	02220 240 5550	7.6	/CY														28	CY
	Subtotal																			198
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			3206

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Stoker Storage Bin No 41																			
	Structure's Demolition Cost																			
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost	Concrete demolition	ConcreteDemo 1	3.97	/CY						35					CY		35	CY	139
	Concrete's Vol. Demolished																1.3	48	CY	
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY													48	CY	84
	Transportation Cost	12 CY (18 Ton) Dump Truck 1/2 ml. rd. tri	02315 480 0320	3.44	/CY													48	CY	158
	Disposal Costs	On site disposal	02220 240 5550	7.6	/CY													48	CY	350
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	
	Substation No 2 No 42																				
	Structure's Demolition Cost	Mixed Materials Bld. Large	02220 110 0100	0.21	/CF						4000					CF		4000	CF	840	
	Structure's Vol. Demolished																	0.35	52	CY	
	Rubble's Weight (exclude steel)																				
	Truck's Capacity																				
	Haulage																				
	Transportation Cost Non Steel Truck																				
	Transportation Cost Non Steel Drive																				
	Disposal Cost Non Steel	City Services	City Service Price		4	/CY													52	CY	208
	Steel's Weight																				
	Truck's Capacity																				
	Haulage																				
	Transportation Cost Steel Truck																				
	Transportation Cost Steel Truck Drive																				
	Disposal Cost Steel																				
	Subtotal																			1048	
	Equipment's Disposal Cost																				
	Dismantling Cost																				
	Equipment's Vol. Demolished																				
	Loading Costs																				
	Transport Costs																				
	Disposal Costs																				
	Subtotal																			1748	
	Concrete Demolition																				
	Demolition Cost	Concrete demolition	ConcreteDemo 1	3.97	/CY						57					CY		57	CY	228	
	Concrete's Vol. Demolished																	1.3	74	CY	
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY														74	CY	103
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 ml. rd.	02315 490 0320	3.44	/CY														74	CY	255
	Disposal Costs	On site disposal	02220 240 5550	7.6	/CY														74	CY	562
	Subtotal																			1748	
	Concrete Demolition																				
	Demolition Cost																				
	Concrete's Vol. Demolished																				
	Loading Cost																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																			2164	
	Total																			2164	

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Methane Degas Wells 45																			
	Structure's Demolition Cost	Plug Well	AML3	5000	EA.										15	EA		15	EA	75000
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			75000
	Fence																			
	Silt Fence	Silt fence	02370 700 1100	1.05	LF	12970										FT		12970	FT	13619
	Chicken Wire Fence	Fence Chicken Wire	02820 410 0012	4.57	LF	12970										FT		12970	FT	59273
	Subtotal																			72882
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			147882

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Pace Fan Culvert																			
	Excavate Culvert	Excavation Bulk Bank 2 CY (322BL)	02315 424 0260	1.7	/CY	440	3	6										293	CY	488
	Backfill Culvert	Backfill Trench Minimal Haul 2 1/4 CY	02315 610 3080	1.53	/CY	440	3	6										293	CY	448
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight											6				ton				
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.96	/day									0.4		Day		0.4	Day	174
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	Trhv	\$42.00	/HR									3		HR		3	HR	126
	Disposal Cost Steel																			
	Subtotal																			1248
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			1248

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	
	Pace Fan Generator																				
	Structure's Demolition Cost	Steel Bld. Large	02220 110 0012	0.2	/CF	25	25	12								CF		7500	CF	1500	
	Structure's Vol. Demolished																0.35	97	CY		
	Rubble's Weight (exclude steel)																				
	Truck's Capacity																				
	Haulage																				
	Transportation Cost Non Steel Truck																				
	Transportation Cost Non Steel Drive																				
	Disposal Cost Non Steel																				
	Steel's Weight											0				TON		0	TON		
	Truck's Capacity																				
	Haulage																				
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.96	/day										0	DAY		0	DAY	0	
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	TrhV	\$42.00	HR										0	HR		0	HR	0	
	Disposal Cost Steel																				
	Subtotal																			1500	
	Equipment's Disposal Cost																				
	Ducting	Mechanical equipment heavy	15055 300 3600	805	/ton							35				ton		35	ton	28175	
	Fan	Mechanical equipment heavy	15055 300 3600	805	/ton							10				ton		10	ton	8050	
	Hilfliker Mesh	Mechanical equipment heavy	15055 300 3600	805	/ton							0.7				ton		0.7	ton	564	
	Portal plate liner	Mechanical equipment heavy	15055 300 3600	805	/ton							1.2				ton		1.2	ton	966	
	Total steel weight											46.9									
	Transportation Cost Steel Truck	Truck dump 16 ton payload	01590 200 5300	435.96	/day										0.6	DAY		0.6	DAY	262	
	Transportation Cost Steel Truck Drive	Truck Driver, Heavy	TrhV	\$42.00	HR										5	HR		5	HR	210	
	Subtotal																			38227	
	Portal plate liner																				
	Concrete Demolition																				
	Demolition Cost	Concrete demolition	ConcreteDemo1	3.97	/CY						70					CY		70	CY	278	
	Concrete's Vol. Demolished																1.3	91	CY		
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY													91	CY	126	
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. tri	02315 490 0320	3.44	/CY													91	CY	313	
	Disposal Costs	On site disposal	02220 240 5550	7.6	/CY													91	CY	692	
	Subtotal																			4406	
	Generator Pad																				
	Concrete Demolition																				
	Demolition Cost	Concrete demolition	ConcreteDemo1	3.97	/CY						128					CY		128	CY	508	
	Concrete's Vol. Demolished																1.3	166	CY		
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY													166	CY	231	
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. tri	02315 490 0320	3.44	/CY													166	CY	571	
	Disposal Costs	On site disposal	02220 240 5550	7.6	/CY													166	CY	1262	
	Subtotal																			2672	
	Fan Building																				
	Concrete Demolition																				
	Demolition Cost	Concrete demolition	ConcreteDemo1	3.97	/CY						252					CY		252	CY	1000	
	Concrete's Vol. Demolished																1.3	328	CY		
	Loading Cost	Front end loader 3 CY	02315 424 1300	1.39	/CY													328	CY	456	
	Transportation Cost	12 CY (16 Ton) Dump Truck 1/2 mi. md. tri	02315 490 0320	3.44	/CY													328	CY	1128	
	Disposal Costs	On site disposal	02220 240 5550	7.6	/CY													328	CY	2493	
	Subtotal																			5677	
	Total																			48756	

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Pace Fan Portal																			
	Seal Portal	Seal Portals	AML1	5200	EA.										1	EA		1	EA	5200
	Structure's Vol. Demolished																			
	Rubble's Weight (exclde steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			5200
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			5200

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	
	Degas Well G2 No 39																				
	Grade and Backfill	Front end loader 3 CY	02315 424 1300	1.39	/CY						56					CY		56	CY	78	
	Fill in Mud Pit	Backfill Trench Mininal Haul 2 1/4 CY	02315 610 3080	1.53	/CY						1246					CY		1246	CY	1906	
	Subtotal																			1984	
	Plug Well Casing	Concrete Ready Mix 8000 psi	03310 220 0412	184	/CY						21					CY		21	CY	3884	
	Subtotal																			3884	
	Spread Topsoil	Front end loader 3 CY	02315 424 1300	1.39	/CY						3103					CY		3103	CY	4313	
	Spread Topsoil	Backfill Trench Mininal Haul 2 1/4 CY	02315 610 3080	1.53	/CY						3103					CY		3103	CY	4748	
	Subtotal																			9061	
	Fence																				
	Remove Barbed Wire	Fencing Barbed wire 3 strand	02220 220 1600	1.55	/LF	917										FT		917	FT	1421	
	Subtotal																			1421	
	Support																				
	Pickup Truck	Pickup Rental	01590 400 7200	80.42	/day									37.2		hr			4.7	day	378
	Foreman	Foreman Average, Outside	Foreman	\$57.30	HR									37.2		hr			37.2	hr	2132
	Subtotal																			2510	
	Total																			18840	

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	
	Degas Well G3 No 40																				
	Grade and Backfill	Front end loader 3 CY	02315 424 1300	1.39	/CY						57					CY		57	CY	79	
	Fill in Mud Pit	Backfill Trench Mininal Haul 2 1/4 CY	02315 610 3080	1.53	/CY						2543					CY		2543	CY	3891	
	Subtotal																			5970	
	Plug Well Casing	Concrete Ready Mix 8000 psi	03310 220 0412	184	/CY						21					CY		21	CY	3864	
	Subtotal																			3864	
	Spread Topsoil	Front end loader 3 CY	02315 424 1300	1.39	/CY						1182					CY		1182	CY	1643	
	Spread Topsoil	Backfill Trench Mininal Haul 2 1/4 CY	02315 610 3080	1.53	/CY						1182					CY		1182	CY	1808	
	Subtotal																			3451	
	Fence																				
	Remove Barbed Wire	Fencing Barbed wire 3 strand	02220 220 1600	1.55	/LF	542										FT		542	FT	840	
	Subtotal																			840	
	Support																				
	Pickup Truck	Pickup Rental	01590 400 7200	80.42	/day									14.4		hr			1.8	day	145
	Foreman	Foreman Average, Outside	Foreman	\$57.30	HR									14.4		hr			14.4	hr	825
	Subtotal																			970	
	Total																			13095	

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Degas Well G4 No 38																			
	Grade and Backfill	Front end loader 3 CY	02315 424 1300	1.39	/CY						42					CY		42	CY	58
	Fill in Mud Pit	Backfill Trench Mininal Haul 2 1/4 CY	02315 610 3080	1.53	/CY						840					CY		840	CY	1285
	Subtotal																			1343
	Plug Well Casing	Concrete Ready Mix 8000 psi	03310 220 0412	184	/CY						21					CY		21	CY	3884
	Subtotal																			3884
	Spread Topsoil	Front end loader 3 CY	02315 424 1300	1.39	/CY						414					CY		414	CY	575
	Spread Topsoil	Backfill Trench Mininal Haul 2 1/4 CY	02315 610 3080	1.53	/CY						414					CY		414	CY	633
	Subtotal																			1208
	Fence																			
	Remove Barbed Wire					551										FT		551	FT	854
	Subtotal																			854
	Support																			
	Pickup Truck	Pickup Rental	01590 400 7200	80.42	/day									5.1		hr		0.6	day	48
	Foreman	Foreman Average, Outside	Foreman	\$57.30	HR									5.1		hr		5.1	hr	292
	Subtotal																			340
	Total																			7809

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Degas Well G 5 MW 05																			
	Grading and Backfill																			
	Fill Mud Pit	Backfill structural 300 HP 50' Dirt	02315 120 5020	0.65	/CY						2074					CY		2074	CY	1348
	Fill Drill Pad	Backfill structural 300 HP 50' Dirt	02315 120 5020	0.65	/CY						2294					CY		2294	CY	1491
	Plug Well Casing	Concrete Ready Mix 8000 psi	03310 220 0412	184	/CY						21					CY		21	CY	3864
	Spread Topsoil	Backfill structural 300 HP 50' Dirt	02315 120 5020	0.65	/CY						2967					CY		2967	CY	1929
	Remove Barbed Wire	Fencing Barbed wire 3 strand	02220 220 1600	1.55	/LF	1070										LF		1070	LF	1659
	Subtotal																			10291
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transportation Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			10291

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost	
	Degas Well G 6 MW 06																				
	Grading and Backfill																				
	Fill Mud Pit	Backfill structural 300 HP 50' Dirt	02315 120 5020	0.65	/CY						2074					CY		2074	CY	1348	
	Fill Drill Pad	Backfill structural 300 HP 50' Dirt	02315 120 5020	0.65	/CY						4617					CY		4617	CY	3001	
	Plug Well Casing	Concrete Ready Mix 8000 psi	03310 220 0412	184	/CY						21					CY		21	CY	3864	
	Spread Topsoil	Backfill structural 300 HP 50' Dirt	02315 120 5020	0.65	/CY						540					CY		540	CY	351	
	Remove Barbed Wire	Fencing Barbed wire 3 strand	02220 220 1600	1.55	/LF	860										LF		860	LF	1333	
	Subtotal																			6897	
	Equipment's Disposal Cost																				
	Dismantling Cost																				
	Equipment's Vol. Demolished																				
	Loading Costs																				
	Transport Costs																				
	Disposal Costs																				
	Subtotal																				
	Concrete Demolition																				
	Demolition Cost																				
	Concrete's Vol. Demolished																				
	Loading Cost																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				
	Concrete Demolition																				
	Demolition Cost																				
	Concrete's Vol. Demolished																				
	Loading Cost																				
	Transportation Cost																				
	Disposal Costs																				
	Subtotal																				
	Total																				6897

	Equipment Cost	Hourly Operating Costs	Equipment Overhead	Operator's Hourly Wage Rate	Hourly Cost	Number of Men or Eq.	Total Eq. & Lab. Costs	Units	Quantity	Units	Production Rate	Units	Equip. + Labor Time/Dis.	Units	Cost
Facilities Area 01															308109
Facilities Area 02															119177
Stream Channel 03															32869
Gabion Basin 04															
Refuse Pile 05															71327
Pace Canyon Fan Portal															19979
Subtotal															561461

	Equipment Cost	Hourly Operating Costs	Equipment Overhead	Operator's Hourly Wage Rate	Hourly Cost	Number of Men or Eq.	Total Eq. & Lab. Costs	Units	Quantity	Units	Production Rate	Units	Equip. + Labor Time/Dis.	Units	Cost
Dugout Mine Facilities Area 01 Cut and Fill at Mine Site															
Equipment															
Rough Grading															
D9R Semi-U EROPS (9-43) (3Q02)	17060	64.8	0.1	50.7	228.61	1	228.61	\$/HR	118169	CY	184	CY/HR	642.2	HR	146813
Finished Grading															
D9R Semi-U EROPS (9-43) (3Q02)	17060	64.8	0.1	50.7	228.61	1	228.61	\$/HR	19926	CY	680	CY/HR	29.3	HR	6698
815F ((6-13) (4Q03))	9140	35.35	0.1	50.7	146.71	1	146.71	\$/HR	58490	CY	876	CY/HR	66.8	HR	9800
CAT 345BL 2000 (10-21)(3Q03)	13965	55.25	0.1	50.7	198.76	1	198.76	\$/HR	10000	CY	308	CY/HR	32.5	HR	6460
966G EROPS (9-37) (3Q03)	6510	27	0.1	50.7	121.09	1	121.09	\$/HR	8342	CY	204	CY/HR	40.9	HR	4953
Support Personel and Labor															
CLAB					40.5	1	40.5	\$/HR					642.2	HR	26009
5,000 gal H2O truck Diesel (20-6) (2Q03)	4855	27.95	0.1	40.3	101.39	1	101.39	\$/HR					642.2	HR	65113
Pickup Truck Crew 4x4 1 ton (20-7) (2Q03)	875	4.45	0.1	0	10.36	1	10.36	\$/HR					642.2	HR	6653
Foreman Average, Outside					55.45	1	55.45	\$/HR					642.2	HR	35610
Subtotal															308109

	Equipment Cost	Hourly Operating Costs	Equipment Overhead	Operator's Hourly Wage Rate	Hourly Cost	Number of Men or Eq.	Total Eq. & Lab. Costs	Units	Quantity	Units	Production Rate	Units	Equip. + Labor Time/Dis.	Units	Cost
Dugout Mine Facilities Area 02 Topsoil Disturbution															
Move topsoil															
D9R Semi-U EROPS (9-43) (3Q02)	17060	64.8	0.1	50.7	228.61	1	228.61	\$/HR	21460	CY	184	CY/HR	116.6	HR	26656
Pocking Handled in Vegetation Section															
966G EROPS (9-37) (3Q03)	6510	27	0.1	50.7	121.09	1	121.09	\$/HR	21460	CY	204	CY/HR	105.2	HR	12739
6X4 75,000lbs 12-18 CY (20-1) (2Q00)	3580	25.05	0.1	38.1	88.03	6	528.18	\$/HR	21460	CY	204	CY/HR	105.2	HR	55565
Support Personel and Labor															
CLAB					40.5	1	40.5	\$/HR					116.6	HR	4722
5,000 gal H2O truck Diesel (20-6) (2Q03)	4855	27.95	0.1	40.3	101.39	1	101.39	\$/HR					116.6	HR	11822
Pickup Truck Crew 4x4 1 ton (20-7) (2Q03)	875	4.45	0.1	0	10.36	1	10.36	\$/HR					116.6	HR	1208
Foreman Average, Outside					55.45	1	55.45	\$/HR					116.6	HR	6465
Subtotal															118177

	Equipment Cost	Hourly Operating Costs	Equipment Overhead	Operator's Hourly Wage Rate	Hourly Cost	Number of Men or Eq.	Total Eq. & Lab. Costs	Units	Quantity	Units	Production Rate	Units	Equip. + Labor Time/Dis.	Units	Cost
Dugout Mine Stream Channel 03 Remove Culvert and Restore Channel															
CAT 330BL 2001 (10-21)(3Q03)	10530	42.6	0.1	50.7	163.37	1	163.37	\$/HR	14400	CY	310	CY/HR	46.5	HR	7597
CLAB					40.5	0.5	20.25	\$/HR					46.5	HR	942
966G EROPS (9-37) (3Q03)	6510	27	0.1	50.7	121.09	1	121.09	\$/HR	1500	CY	204	CY/HR	7.4	HR	896
CLAB					40.5	0.5	20.25	\$/HR					7.4	HR	150
6X4 70,000lbs 12-18 CY (20-1) (2Q03)	3590	25.8	0.1	40.3	91.12	1	91.12	\$/HR	7000	CY	50	CY/HR	140	HR	12757
CLAB					40.5	0.5	20.25	\$/HR					140	HR	2835
Support															
Foreman Average, Outside					55.45	1	55.45	\$/HR					46	HR	2551
5,000 gal H2O truck Diesel (20-6) (2Q03)	4855	27.95	0.1	40.3	101.39	1	101.39	\$/HR					46	HR	4664
Pickup Truck Crew 4x4 1 ton (20-7) (2Q03)	875	4.45	0.1	0	10.36	1	10.36	\$/HR					46	HR	477
Subtotal															32863

	Equipment Cost	Hourly Operating Costs	Equipment Overhead	Operator's Hourly Wage Rate	Hourly Cost	Number of Men or Eq.	Total Eq. & Lab. Costs	Units	Quantity	Units	Production Rate	Units	Equip. + Labor Time/Dis.	Units	Cost
Pace Canyon Fan Portal															
Backfill Shaft															
CAT 325BL (10-21)(2nd04)	9170	35.55	0.1	52	148.42	1	148.42	\$/HR	641	CY	216	CY/HR	3	HR	445
6X4 70,000lbs 12-18 CY (20-11) (1Q04)	3600	25.75	0.1	42	92.83	3	278.49						3	HR	835
Trucking Topsoil															
CAT 325BL (10-21)(2nd04)	9170	35.55	0.1	52	148.42	1	148.42	\$/HR	922	CY	150	CY/HR	6.1	HR	905
6X4 70,000lbs 12-18 CY (20-11) (1Q04)	3600	25.75	0.1	42	92.83	13	1206.79						6.1	HR	7361
Backfill Portal															
D8R Series II Semi-U EROPS (9-55) (2nd04)	13720	53.4	0.1	52	196.49	1	196.49	\$/HR	331	CY	171	CY/HR	1.9	HR	373
Subsoil Placement															
D8R Series II Semi-U EROPS (9-55) (2nd04)	13720	53.4	0.1	52	196.49	1	196.49	\$/HR	3900	CY	90	CY/HR	43.3	HR	8508
Doze On -site Topsoil															
D8R Series II Semi-U EROPS (9-55) (2nd04)	13720	53.4	0.1	52	196.49	1	196.49	\$/HR	1206	CY	480	CY/HR	2.5	HR	491
Doze Trucked Topsoil															
D8R Series II Semi-U EROPS (9-55) (2nd04)	13720	53.4	0.1	52	196.49	1	196.49	\$/HR	922	CY	171	CY/HR	5.4	HR	1061
Subtotal															19979

Ref.	Description	Materials	Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Dugout Mine Vegetation																			
	Soil Preparation																			
	Packing	Excavation Bulk Bank 2 CY (322BL)	02315 424 0260	1.68	/CY					14.56						AC		23490	CY	39463
	Subtotal																			39463
	Fence																			
	Silt Fence	Silt fence	02370 700 1100	1.01	LF	6800										FT		6800	FT	6868
	Chicken Wire	Fence Chicken Wire	02820 410 0012	6.55	LF	3400										FT		3400	FT	22270
	Subtotal																			29138
	Seed Mix No 1																			
	Hydroseed Equipment and Labor	Hydro Spreader (equip. & labor) B-81 80MS	Reveg002	18.8	/MSF					13.9						AC		605	MSF	11374
	Hydroseed Material	Dugout Seed Mix No 1	Dugout 07391S	394.75	/AC					13.9						AC		13.9	AC	5487
	Hay Mulch	Hay material only 02370 700 1200	Reveg001R	57.2	/ton					13.9						AC		13.9	ton/AC	795
	Transplant Area No 1																			
	Area																			
	Transplant Materials	Dugout Transplant Mix No 1	Dugout 07391T	349	/AC					13.9						AC		13.9	AC	4851
	Transplant Labor	Bare root seedlings, 6" to 10"	02912 350 0711	1.21	Ea										550	#/AC		7645	EA	9250
	Seed Mix No 2																			
	Hydroseed Equipment and Labor	Hydro Spreader (equip. & labor) B-81 80MS	Reveg002	18.8	/MSF					2.45						AC		107	MSF	2012
	Hydroseed Material	Dugout Seed Mix No 2	Dugout 07392S	711.25	/AC					2.45						AC		2.45	AC	1743
	Hay Mulch	Hay material only 02370 700 1200	Reveg001R	57.2	/ton					2.45						AC		2.45	ton/AC	140
	Transplant Area No 2																			
	Area																			
	Transplant Materials	Dugout Transplant Mix No 1	Dugout 07391T	349	/AC					2.45						AC		2.45	AC	855
	Transplant Labor	Bare root seedlings, 6" to 10"	02912 350 0711	1.21	Ea										6500	#/AC		15925	EA	19269
	Subtotal																			55773
	Direct Vegetation																			124372
	Reseeding																			
	Assume 20% reveg rate																			31064
	Total																			165471

Ref.	Description	Materials	Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Dugout Mine Refuse Pile																			
	Soil Preparation																			
	Packing	Excavation Bulk Bank 2 CY (322BL)	02315 400 0260	1.73	/CY					15.6						AC		25168	CY	43541
	Subtotal																			43541
	Seed Mix No 1																			
	Hydroseed Equipment and Labor	Hydro Spreader (equip. & labor) B-81 80MS	Reveg002	18.8	/MSF					15.6						AC		680	MSF	12784
	Hydroseed Material	Dugout Seed Mix No 1	Dugout 07391S	394.75	/AC					15.6						AC		15.6	AC	6158
	Hay Mulch	Hay material only 02370 700 1200	Reveg001R	57.2	/ton					15.6						AC		15.6	ton/AC	892
	Transplant Area No 1																			
	Area																			
	Transplant Materials	Dugout Transplant Mix No 1	Dugout 07391T	349	/AC					15.6						AC		15.6	AC	5444
	Transplant Labor	Bare root seedlings, 6" to 10"	02912 350 0711	1.21	Ea										550	#/AC		8580	EA	10382
	Subtotal																			34660
	Reseeding																			
	Assume 25% reveg rate																			8915
	Subtotal																			8915
	Total																			8915

Ref.	Description	Materials	Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Degas Well G2																			
	Soil Preparation																			
	Packing	Excavation Bulk Bank 2 CY (322BL)	02315 400 0260	1.73	/CY						1					AC		1613	CY	2790
	Subtotal																			2790
	Seed Mix No 1																			
	Hydroseed Equipment and Labor	Hydro Spreader (equip. & labor) B-81 80MS	Reveg002	18.8	/MSF						1					AC		44	MSF	827
	Hydroseed Material	Dugout Seed Mix No 1	Dugout 07391S	394.75	/AC						1					AC		1	AC	395
	Hay Mulch	Hay material only 02370 700 1200	Reveg001R	57.2	/ton						1					AC		1	ton/AC	57
	Transplant Area No 1																			
	Area																			
	Transplant Materials	Dugout Transplant Mix No 1	Dugout 07391T	349	/AC						1					AC		1	AC	349
	Transplant Labor	Bare root seedlings, 6" to 10"	02912 350 0711	1.21	Ea											550 #/AC		550	Ea	668
	Subtotal																			2264
	Direct Vegetation																			5084
	Reseeding																			
	Assume 25% reveg rate																			1374
	Total																			6355

Ref.	Description	Materials	Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Degas Well G3																			
	Soil Preparation																			
	Pocking	Excavation Bulk Bank 2 CY (322BL)	02315 400 0260	1.73	/CY					1						AC		1813	CY	2790
	Subtotal																			2790
	Seed Mix No 1																			
	Hydroseed Equipment and Labor	Hydro Spreader (equip. & labor) B-81 80MS	Reveg002	18.8	/MSF					1						AC		44	MSF	827
	Hydroseed Material	Dugout Seed Mix No 1	Dugout 07391S	394.75	/AC					1						AC		1	AC	395
	Hay Mulch	Hay material only 02370 700 1200	Reveg001R	57.2	/ton					1						AC		1	ton/AC	57
	Transplant Area No 1																			
	Area																			
	Transplant Materials	Dugout Transplant Mix No 1	Dugout 07391T	349	/AC					1						AC		1	AC	349
	Transplant Labor	Bare root seedlings, 6" to 10"	02912 350 0711	1.21	Ea											550 #/AC		550	EA	668
	Subtotal																			2294
	Direct Vegetation																			3084
	Reseeding																			
	Assume 25% reveg rate																			1271
	Total																			8358

Ref.	Description	Materials	Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Degas Well G4																			
	Soil Preparation																			
	Packing	Excavation Bulk Bank 2 CY (322BL)	02315 400 0260	1.73	/CY						1					AC		1613	CY	2790
	Subtotal																			2790
	Seed Mix No 1																			
	Hydroseed Equipment and Labor	Hydro Spreader (equip. & labor) B-81 80MS	Reveg002	18.8	/MSF						1					AC		44	MSF	827
	Hydroseed Material	Dugout Seed Mix No 1	Dugout 07391S	394.75	/AC						1					AC		1	AC	395
	Hay Mulch	Hay material only 02370 700 1200	Reveg001R	57.2	/ton						1					AC		1	ton/AC	57
	Transplant Area No 1																			
	Area																			
	Transplant Materials	Dugout Transplant Mix No 1	Dugout 07391T	349	/AC						1					AC		1	AC	349
	Transplant Labor	Bare root seedlings, 6" to 10"	02912 350 0711	1.21	/Ea											#/AC	550	EA	668	668
	Subtotal																			2294
	Direct Vegetation																			5084
	Reseeding																			
	Assume 25% reveg rate																			1271
	Total																			6353

Ref.	Description	Materials	Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Degas Well G5																			
	Soil Preparation																			
	Pocking	Excavation Bulk Bank 2 CY (322BL)	02315 400 0260	1.73	/CY						1					AC		1613	CY	2790
	Subtotal																			2790
	Seed Mix No 1																			
	Hydroseed Equipment and Labor	Hydro Spreader (equip. & labor) B-81 80MS	Reveg002	18.8	/MSF						1					AC		44	MSF	827
	Hydroseed Material	Dugout Seed Mix No 1	Dugout 07391S	394.75	/AC						1					AC		1	AC	395
	Hay Mulch	Hay material only 02370 700 1200	Reveg001R	57.2	/ton						1					AC		1	ton/AC	57
	Transplant Area No 1																			
	Area																			
	Transplant Materials	Dugout Transplant Mix No 1	Dugout 07391T	349	/AC						1					AC		1	AC	349
	Transplant Labor	Bare root seedlings, 6" to 10"	02912 350 0711	1.21	Ea											550 #/AC		550	EA	666
	Subtotal																			2204
	Direct Vegetation																			5094
	Reseeding																			
	Assume 25% reveg rate																			1271
	Total																			8556

Ref.	Description	Materials	Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Degas Well G6																			
	Soil Preparation																			
	Pocking	Excavation Bulk Bank 2 CY (322BL)	02315 400 0260	1.73	/CY						1					AC		1813	CY	2790
	Subtotal																			2790
	Seed Mix No 1																			
	Hydroseed Equipment and Labor	Hydro Spreader (equip. & labor) B-81 80MS	Reveg002	18.8	/MSF						1					AC		44	MSF	827
	Hydroseed Material	Dugout Seed Mix No 1	Dugout 07391S	394.75	/AC						1					AC		1	AC	395
	Hay Mulch	Hay material only 02370 700 1200	Reveg001R	57.2	/ton						1					AC		1	ton/AC	57
	Transplant Area No 1																			
	Area																			
	Transplant Materials	Dugout Transplant Mix No 1	Dugout 07391T	349	/AC						1					AC		1	AC	349
	Transplant Labor	Bare root seedlings, 6" to 10"	02912 350 0711	1.21	Ea											#/AC		550	EA	668
	Subtotal																			2284
	Direct Vegetation																			6064
	Reseeding																			
	Assume 25% reveg rate																			1271
	Total																			6355

Ref.	Description	Materials	Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Degas Well G45																			
	Soil Preparation																			
	Pocking	Excavation Bulk Bank 2 CY (322BL)	02315 400 0260	1.73	/CY					19.7						AC		31783	CY	54985
	Subtotal																			54985
	Seed Mix No 1																			
	Hydroseed Equipment and Labor	Hydro Spreader (equip. & labor) B-81 80MS	Reveg002	18.8	/MSF					19.7						AC		658	MSF	16130
	Hydroseed Material	Dugout Seed Mix No 1	Dugout 07391S	394.75	/AC					19.7						AC		19.7	AC	7777
	Hay Mulch	Hay material only 02370 700 1200	Reveg001R	57.2	/ton					19.7						AC		19.7	ton/AC	1127
	Transplant Area No 1																			
	Area																			
	Transplant Materials	Dugout Transplant Mix No 1	Dugout 07391T	349	/AC					19.7						AC		19.7	AC	6875
	Transplant Labor	Bare root seedlings, 6" to 10"	02912 350 0711	1.21	Ea										550	#/AC		10835	EA	13110
	Subtotal																			45019
	Direct Vegetation																			100004
	Reseeding																			
	Assume 25% reveg rate																			1271
	Total																			161275

Ref.	Description	Materials	Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Pace Canyon Fan Portal																			
	Soil Preparation																			
	Packing	Excavation Bulk Bank 2 CY (322BL)	02315 400 0260	1.73	/CY						1.5					AC		2420	CY	4187
	Subtotal																			4187
	Seed Mix No 1																			
	Hydroseed Equipment and Labor	Hydro Spreader (equip. & labor) B-81 80MS	Reveg002	18.8	/MSF						1.5					AC		65	MSF	1222
	Hydroseed Material	Dugout Seed Mix No 1	Dugout 07391S	394.75	/AC						1.5					AC		1.5	AC	592
	Hay Mulch	Hay material only 02370 700 1200	Reveg001R	57.2	/ton						1.5					AC		1.5	ton/AC	88
	Subtotal																			1900
	Direct Vegetation																			6062
	Reseeding																			
	Assume 25% reseed rate																			1271
	Total																			7358