

# CONSTRUCTION DRAWINGS

## IUC WHITE MESA MILL

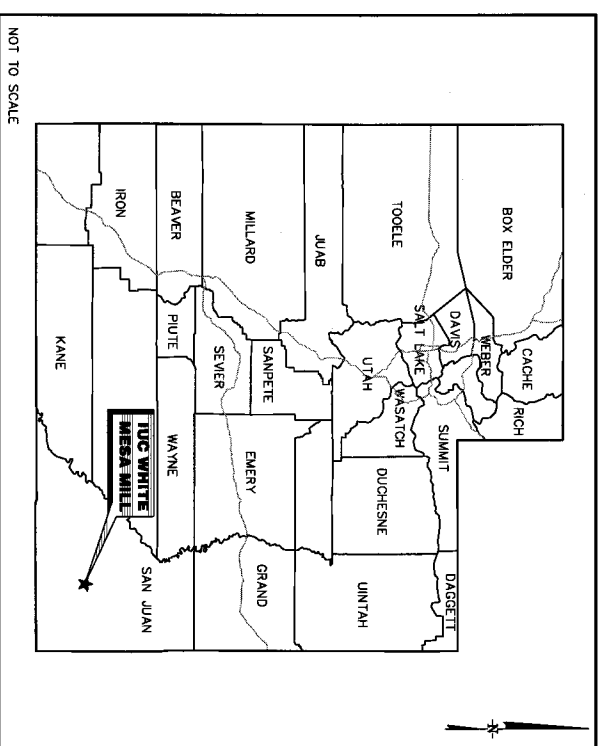
### CELL 4A LINING SYSTEM

#### BLANDING, UTAH

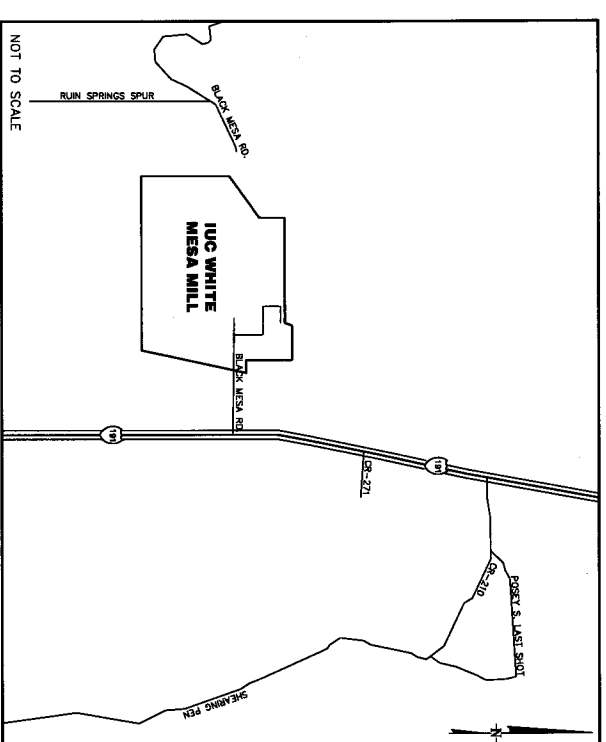
#### JUNE 2006

#### LIST OF DRAWINGS

DRAWING	DESCRIPTION
1	TITLE SHEET
2	SITE PLAN
3	BASE GRADING PLAN
4	PIPE LAYOUT PLAN AND DETAILS
5	LINING SYSTEM DETAILS I
6	LINING SYSTEM DETAILS II
7	LINING SYSTEM DETAILS III

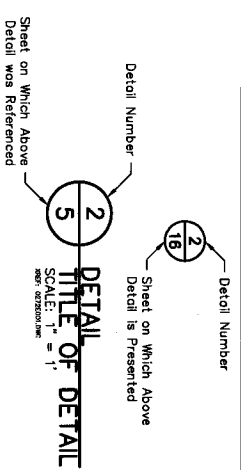


**VICINITY MAP**



**LOCATION MAP**

#### DETAIL IDENTIFICATION LEGEND



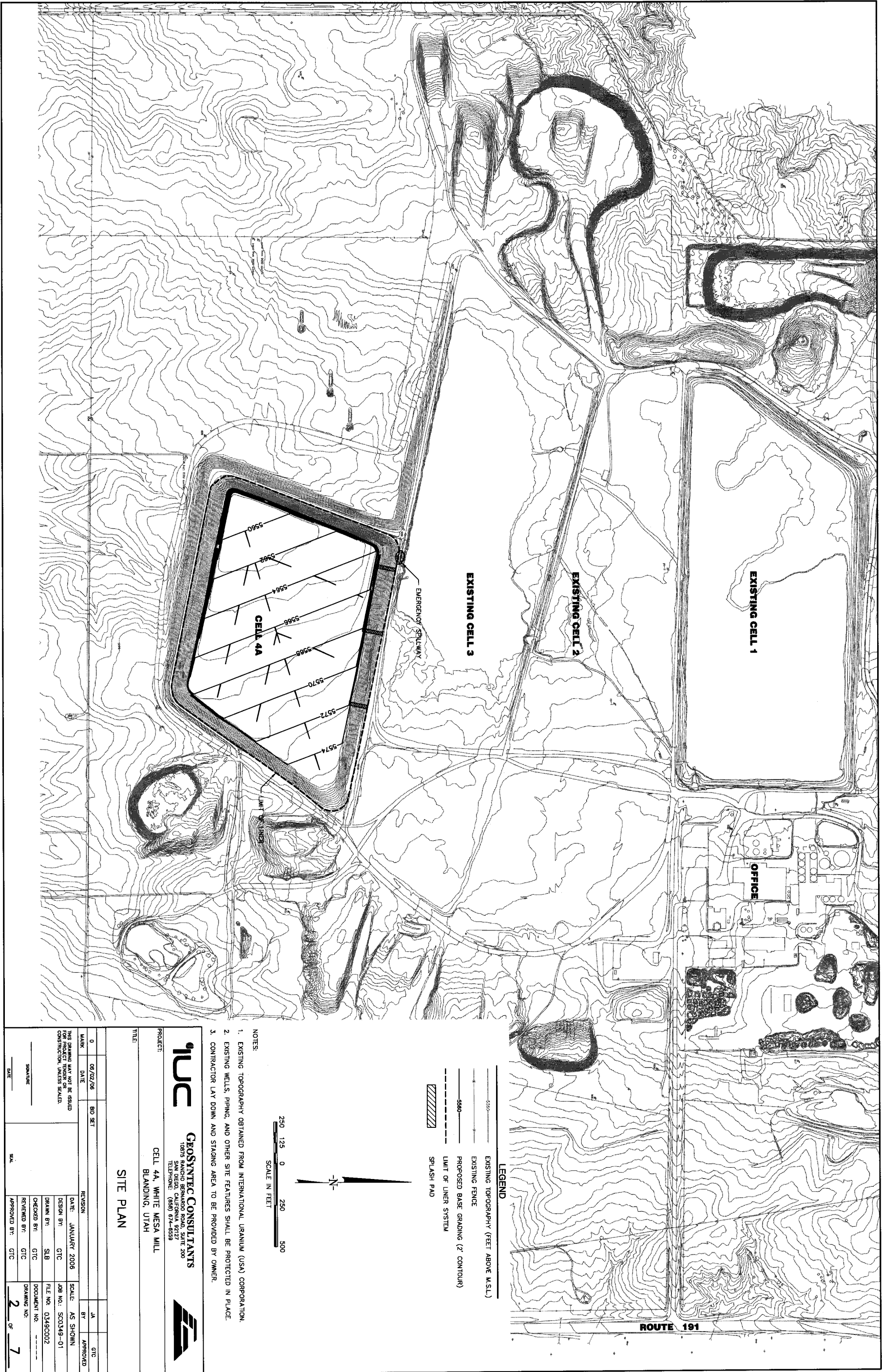
NOTES: ABOVE REFERENCING SYSTEM ALSO APPLIES TO SECTION IDENTIFICATIONS.

#### PREPARED FOR:

**INTERNATIONAL URANIUM (USA) CORPORATION**  
 6425 S. HIGHWAY 191  
 P.O. BOX 809  
 BLANDING, UTAH 84511  
 (306) 628-7798

#### PREPARED BY:

**GEOSSYNTEC CONSULTANTS**  
 10875 RANCHO BERNARDO ROAD, SUITE 200  
 SAN DIEGO, CALIFORNIA 92127  
 (858) 674-6559



EXISTING CELL 1

EXISTING CELL 2

EXISTING CELL 3

CELL 4A

EMERGENCY SPILLWAY

OFFICE

ROUTE 191

LEGEND

- 5500 — EXISTING TOPOGRAPHY (FEET ABOVE M.S.L.)
- 5500 — EXISTING FENCE
- 5500 — PROPOSED BASE GRADING (2' CONTOUR)
- - - - - LIMIT OF LINER SYSTEM
- ▨ SPLASH PAD



- NOTES:
1. EXISTING TOPOGRAPHY OBTAINED FROM INTERNATIONAL URANIUM (USA) CORPORATION.
  2. EXISTING WELLS, PILING, AND OTHER SITE FEATURES SHALL BE PROTECTED IN PLACE.
  3. CONTRACTOR LAY DOWN AND STAGING AREA TO BE PROVIDED BY OWNER.



**GEOSYNTEC CONSULTANTS**  
 10875 RAINBOW BLVD., SUITE 200  
 Blanding, Utah 84608  
 TELEPHONE: (866) 674-5559



PROJECT: CELL 4A, WHITE MESA MILL  
 BLANDING, UTAH

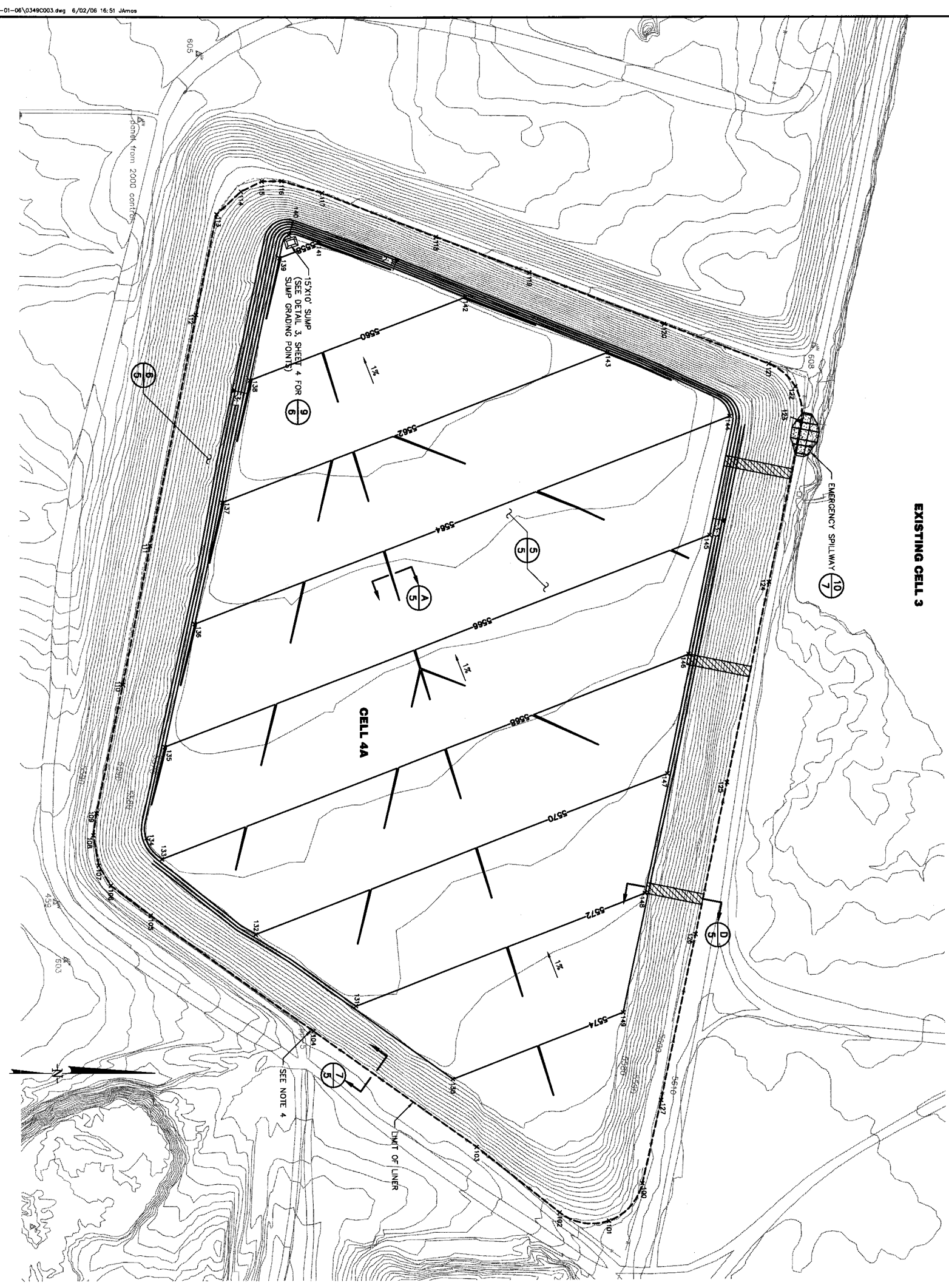
TITLE: SITE PLAN

REVISION	DATE	BY	APPROVED
0	06/02/06	BJD/ST	JM GTC

THIS DRAWING MAY NOT BE USED FOR PROJECT EXCEPT AS SHOWN FOR CONSTRUCTION, UNLESS SCALED.

DATE	SCALE
06/02/06	AS SHOWN

DESIGN BY: GTC	JOB NO.: SC0349-01
DRAWN BY: SLB	FILE NO.: 0349C002
CHECKED BY: GTC	DRAWING NO.:
REVIEWED BY: GTC	APPROVED BY: GTC



EXISTING CELL 3

CELL 4A

EMERGENCY SPILLWAY

15'x10' SUMP  
(SEE DETAIL 3, SHEET 4 FOR  
SUMP GRADING POINTS)



NOTES:

1. EXISTING TOPOGRAPHY OBTAINED FROM INTERNATIONAL URANIUM (USA) CORPORATION.
2. REMOVE AND REPLACE FENCE AS NECESSARY TO CONSTRUCT ANCHOR TRENCH AND SPILLWAY.
3. SPLASH PAD LOCATION TO BE FIELD SELECTED BY OWNER.
4. ANCHOR TRENCH SHALL BE INSTALLED ON LINED SLOPE SIDE OF WELL LOCATION.

**LEGEND**

- EXISTING TOPOGRAPHY (FEET ABOVE M.S.L.)
- - - - - EXISTING FENCE
- - - - - PROPOSED BASE GRADING (2' CONTOUR)
- - - - - LIMIT OF LINER SYSTEM
- ▨ SPLASH PAD (NOTE 3)
- 1% SLOPE DIRECTION AND GRADE

**CONTROL AND GRADING POINTS**

100	320115.50	2579394.08	LINER LIMITS
101	320051.03	2579466.15	LINER LIMITS
102	319955.69	2579449.95	LINER LIMITS
103	319795.72	2579322.43	LINER LIMITS
104	319481.39	2579098.02	LINER LIMITS
105	319168.23	2578873.00	LINER LIMITS
106	319091.24	2578816.26	LINER LIMITS
107	319068.21	2578777.36	LINER LIMITS
108	319057.92	2578719.30	LINER LIMITS
109	319054.11	2578676.69	LINER LIMITS
110	319115.09	2578428.70	LINER LIMITS
111	319168.30	2578160.18	LINER LIMITS
112	319257.15	2577714.18	LINER LIMITS
113	319296.99	2577519.92	LINER LIMITS
114	319343.90	2577476.78	LINER LIMITS
115	319384.09	2577456.91	LINER LIMITS
116	319422.37	2577456.41	LINER LIMITS
117	319500.76	2577479.39	LINER LIMITS
118	319720.73	2577563.82	LINER LIMITS
119	319901.15	2577633.15	LINER LIMITS
120	320161.23	2577732.57	LINER LIMITS
121	320362.52	2577810.16	LINER LIMITS
122	320413.48	2577854.48	LINER LIMITS
123	320424.65	2577921.09	LINER LIMITS
124	320362.70	2578232.21	LINER LIMITS
125	320281.11	2578618.79	LINER LIMITS
126	320219.89	2578912.63	LINER LIMITS
127	320152.21	2579233.79	LINER LIMITS
130	319750.43	2579191.59	BASE GRADES
131	319663.49	2579049.50	BASE GRADES
132	319570.31	2578909.82	BASE GRADES
133	319489.94	2578765.19	BASE GRADES
134	319406.84	2578624.89	BASE GRADES
135	319324.00	2578484.45	BASE GRADES
136	319254.00	2578331.46	BASE GRADES
137	319207.43	2578076.30	BASE GRADES
138	319161.38	2577840.95	BASE GRADES
139	319117.98	2577604.57	BASE GRADES
140	319076.73	2577560.22	BASE GRADES
141	319034.44	2577514.97	BASE GRADES
142	319005.03	2577478.64	BASE GRADES
143	320053.03	2577787.64	BASE GRADES
144	320287.29	2577911.41	BASE GRADES
145	320248.69	2578140.82	BASE GRADES
146	320207.92	2578371.07	BASE GRADES
147	320166.40	2578601.61	BASE GRADES
148	320122.70	2578832.99	BASE GRADES
149	320079.79	2579064.07	BASE GRADES



**GEOSYNTEC CONSULTANTS**  
10875 SANDY CREEK BLVD. SUITE 200  
BLANDING, UTAH 87801  
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PROJECT: CELL 4A, WHITE MESA MILL  
BLANDING, UTAH

TITLE: BASE GRADING PLAN

MARK	DATE	REVISED	BY	APPROVED
0	06/02/06	BID SET		

DATE	REVISION	SCALE	AS SHOWN
JANUARY 2006	GTC	AS SHOWN	

DATE	BY	APPROVED

DATE	BY	APPROVED

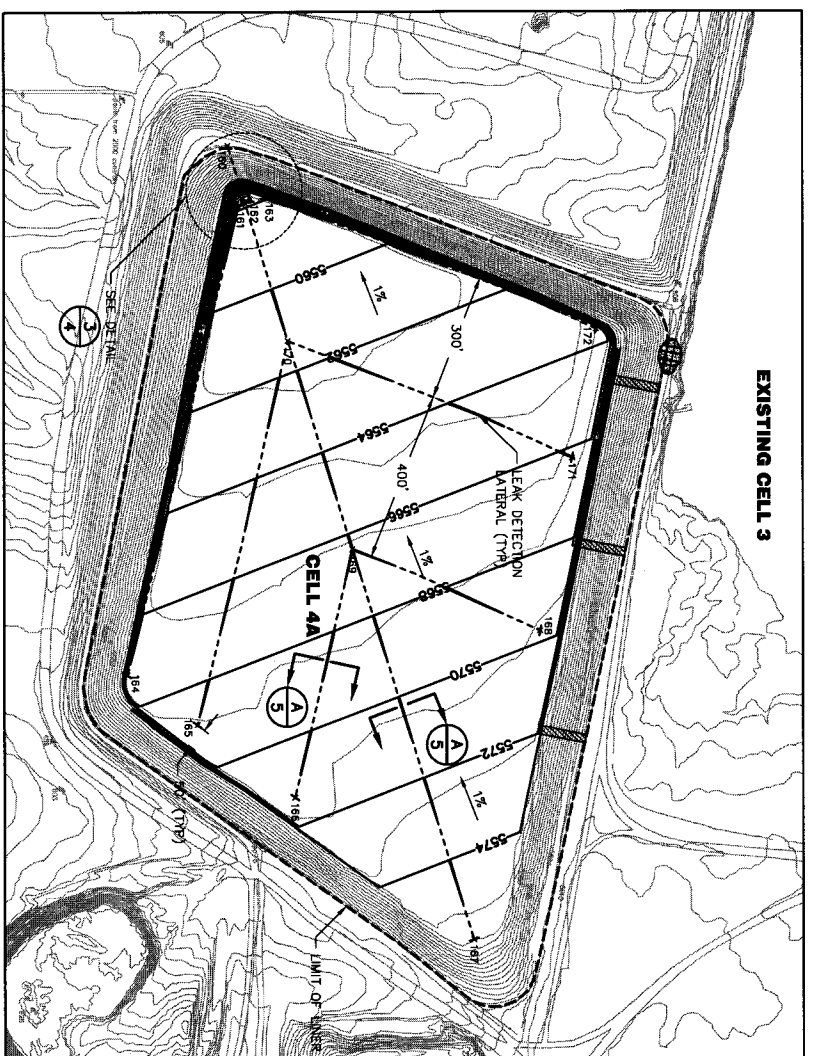
  

DATE	BY	APPROVED

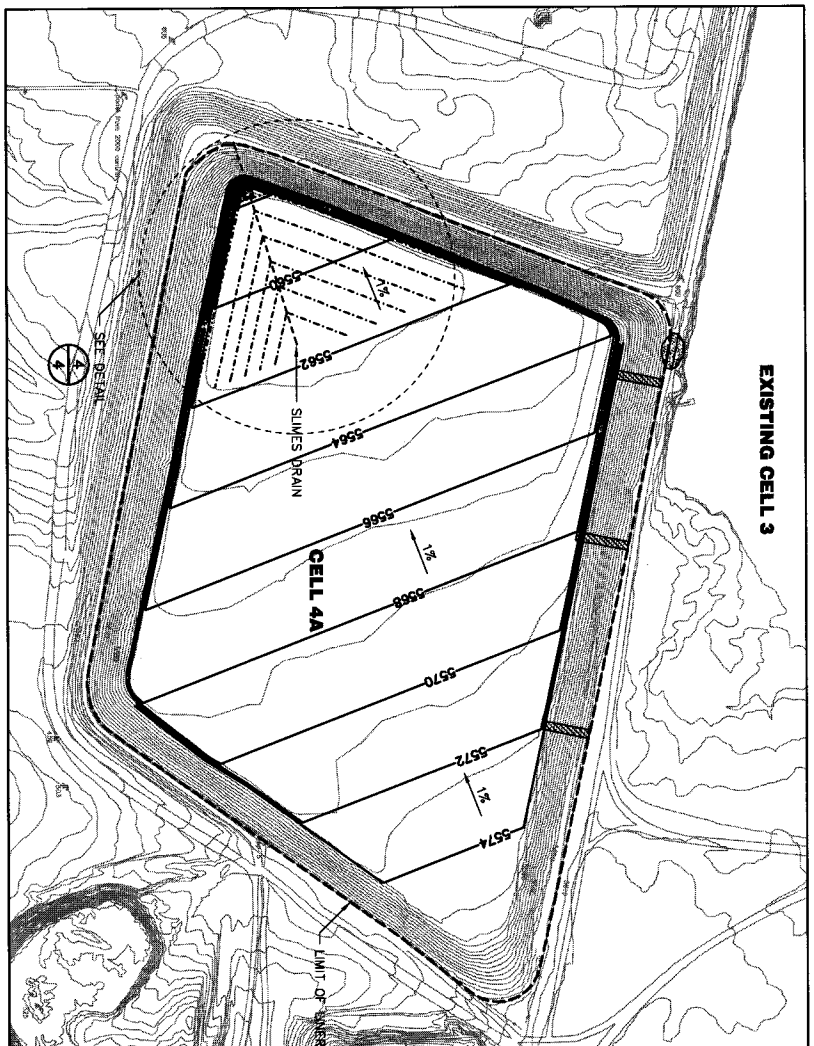
  

DATE	BY	APPROVED

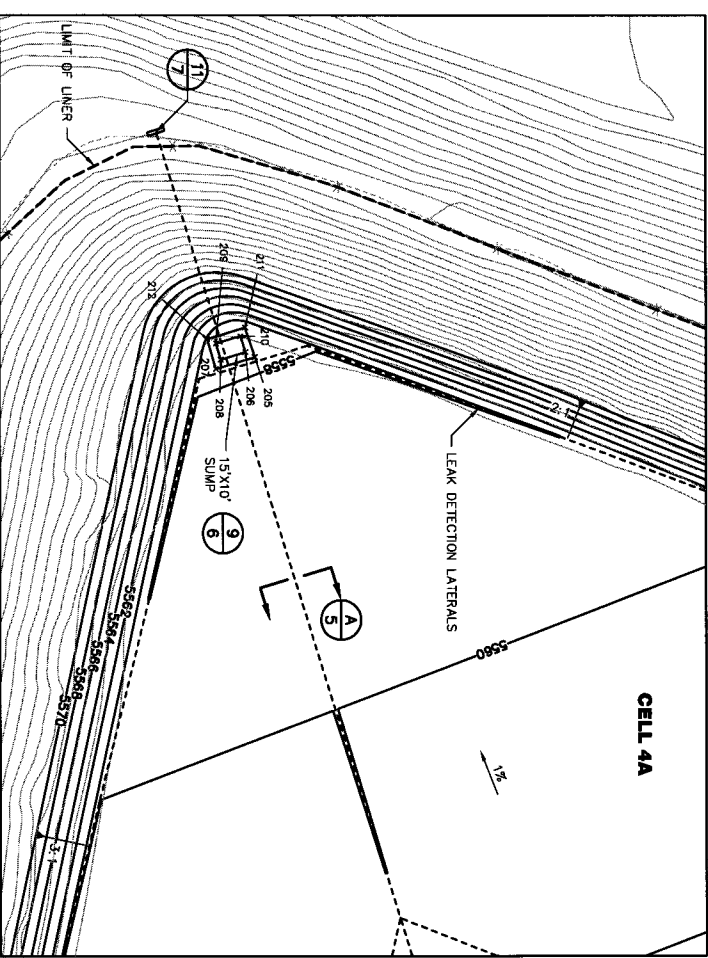




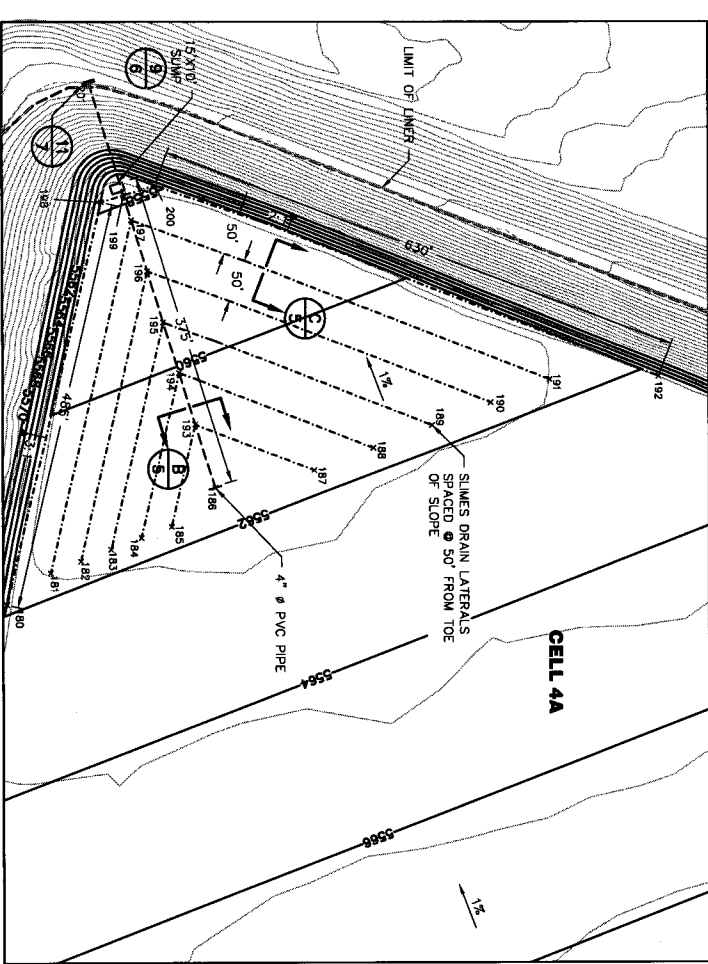
**1**  
**4**  
**PLAN LEAK DETECTION SYSTEM**  
SCALE: 1" = 200'



**2**  
**4**  
**PLAN SLIMES DRAIN SYSTEM**  
SCALE: 1" = 200'



**3**  
**4**  
**DETAIL LEAK DETECTION SYSTEM**  
SCALE: 1" = 50'



**4**  
**4**  
**DETAIL SLIMES DRAIN SYSTEM**  
SCALE: 1" = 100'

**LEGEND**

- EXISTING TOPOGRAPHY (FEET ABOVE M.S.L.)
- EXISTING FENCE
- PROPOSED BASE GRADING (10' CONTOUR)
- 4" PVC PIPE
- CONTECH STRIP DRAIN 80
- LIMIT OF LINER SYSTEM
- SPLASH PAD (NOTE 3)
- SLOPE DIRECTION AND GRADE

**CONTROL AND GRADING POINTS**

160	319398.10	2577451.22	LDS SYSTEM POINTS
161	319422.27	2577592.63	LDS SYSTEM POINTS
162	319440.02	2577573.20	LDS SYSTEM POINTS
163	319485.27	2577573.20	LDS SYSTEM POINTS
164	319162.37	2578091.19	LDS SYSTEM POINTS
165	319326.02	2578810.22	LDS SYSTEM POINTS
166	319554.59	2578981.36	LDS SYSTEM POINTS
167	319972.59	2579314.23	LDS SYSTEM POINTS
168	320128.22	2578589.05	LDS SYSTEM POINTS
169	319899.79	2578397.14	LDS SYSTEM POINTS
170	319539.15	2577908.62	LDS SYSTEM POINTS
171	320203.46	2578183.43	LDS SYSTEM POINTS
172	320299.27	2577890.58	LDS SYSTEM POINTS
180	319310.47	2578026.34	LDS SYSTEM POINTS
181	319361.52	2578026.34	LDS SYSTEM POINTS
182	319396.80	2578012.68	LDS SYSTEM POINTS
183	319432.09	2577999.02	LDS SYSTEM POINTS
184	319467.38	2577985.36	LDS SYSTEM POINTS
185	319502.68	2577972.58	LDS SYSTEM POINTS
186	319553.63	2577926.74	LDS SYSTEM POINTS
187	319689.28	2577905.87	LDS SYSTEM POINTS
188	319739.25	2577879.17	LDS SYSTEM POINTS
189	319807.21	2577852.47	LDS SYSTEM POINTS
190	319876.17	2577825.77	LDS SYSTEM POINTS
191	319945.14	2577799.07	LDS SYSTEM POINTS
192	320072.82	2577785.35	LDS SYSTEM POINTS
193	319530.43	2577691.52	LDS SYSTEM POINTS
194	319511.86	2577791.30	LDS SYSTEM POINTS
195	319493.42	2577731.49	LDS SYSTEM POINTS
196	319474.98	2577671.68	LDS SYSTEM POINTS
197	319456.53	2577611.87	LDS SYSTEM POINTS
198	319421.32	2577590.83	LDS SYSTEM POINTS
199	319483.92	2577571.52	LDS SYSTEM POINTS
200	319407.24	2577452.01	LDS SYSTEM POINTS
205	319454.69	2577579.92	SLIMP GRADE POINTS
206	319448.18	2577577.00	SLIMP GRADE POINTS
207	319431.96	2577586.89	SLIMP GRADE POINTS
208	319434.85	2577581.42	SLIMP GRADE POINTS
209	319431.90	2577571.87	SLIMP GRADE POINTS
210	319446.23	2577567.45	SLIMP GRADE POINTS
211	319448.90	2577562.40	SLIMP GRADE POINTS
212	319426.89	2577569.22	SLIMP GRADE POINTS

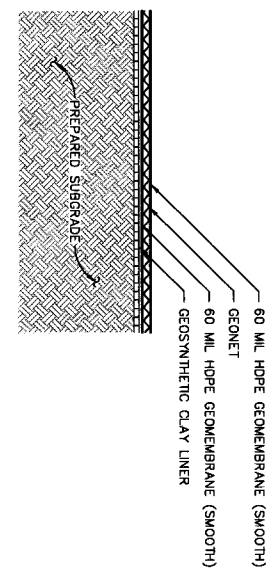
- NOTES:**
- EXISTING TOPOGRAPHY OBTAINED FROM INTERNATIONAL URANIUM (USA) CORPORATION.
  - REMOVE AND REPLACE FENCE AS NECESSARY TO CONSTRUCT ANCHOR TRENCH AND SPILLWAY.
  - SPLASH PAD LOCATION TO BE FIELD SELECTED BY OWNER.

**PROJECT:** CELL 4A, WHITE MESA MILL  
BLANDING, UTAH

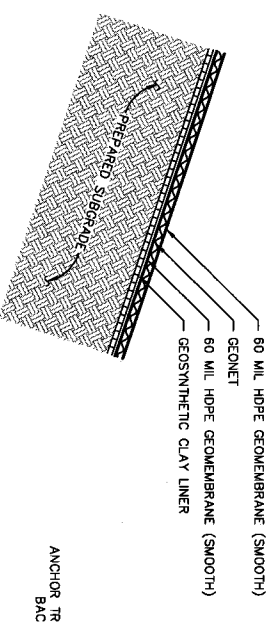
**CLIENT:** GEO-SYNTEC CONSULTANTS  
10875 RANCHO BERNARDO ROAD, SUITE 200  
SAN DIEGO, CALIFORNIA 92127  
TELEPHONE: (650) 674-6559

**TITLE:** PIPE LAYOUT PLAN

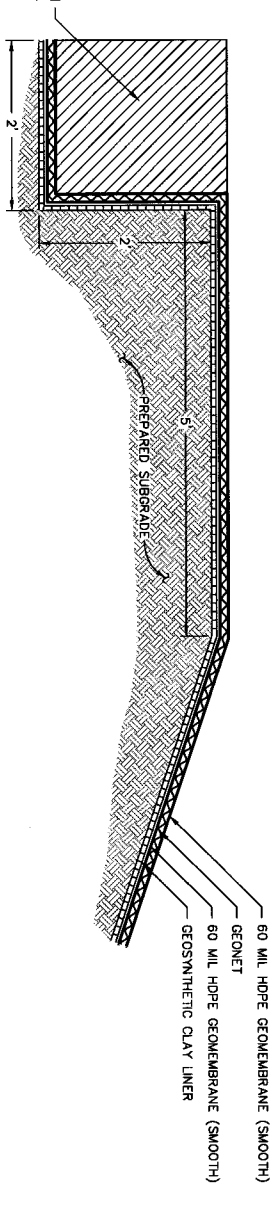
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REVISION				
DATE	REVISION	BY	APPROVED	
JANUARY 2006	AS SHOWN			
GTC	JOB NO. SC0349-01			
SLB	FILE NO. 0349C004			
GTC	DRAWN BY			
GTC	CHECKED BY			
GTC	REVIEWED BY			
GTC	APPROVED BY			
	SCALE			
	4"			7'



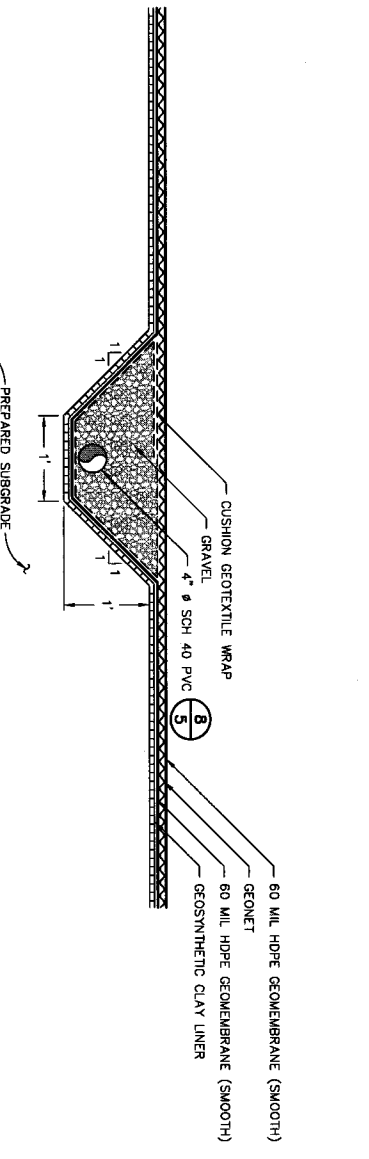
**5** **DETAIL**  
**BASE LINER SYSTEM**  
SCALE: 1" = 1'  
NOT TO SCALE



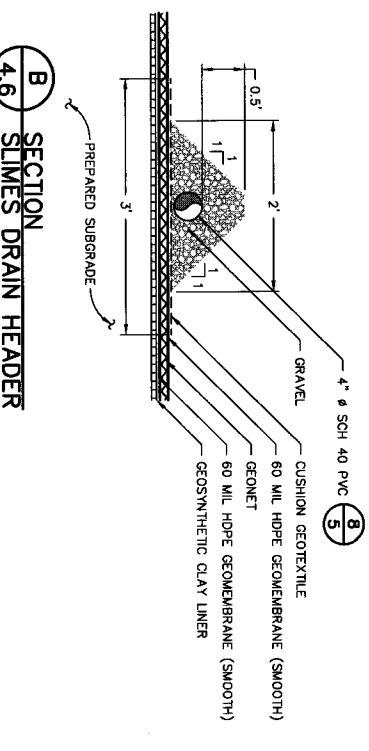
**6** **DETAIL**  
**SIDE SLOPE LINER SYSTEM**  
SCALE: 1" = 1'  
NOT TO SCALE



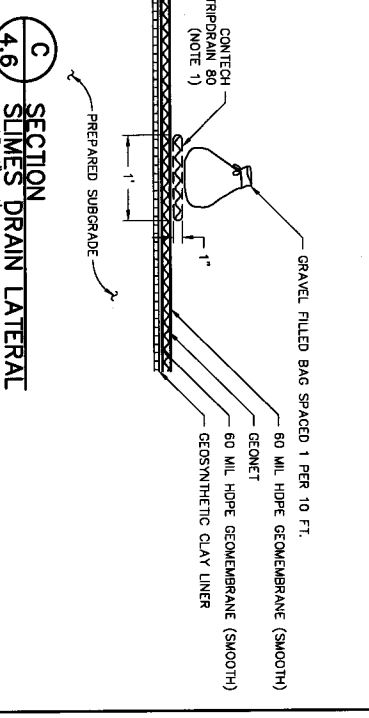
**7** **SECTION**  
**ANCHOR TRENCH**  
SCALE: 1" = 1'  
NOT TO SCALE



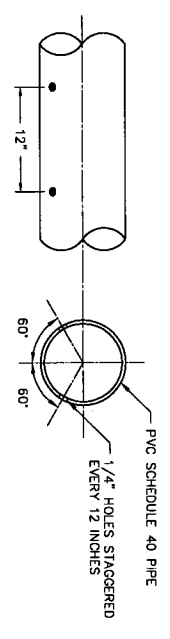
**A** **SECTION**  
**LEAK DETECTION SYSTEM**  
SCALE: 1" = 1'  
NOT TO SCALE



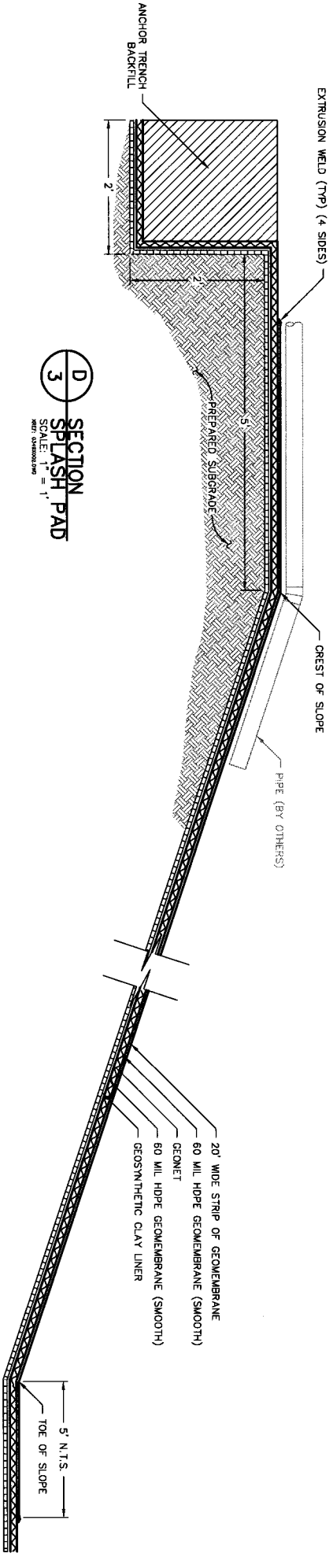
**B** **SECTION**  
**SLIMES DRAIN HEADER**  
SCALE: 1" = 1'  
NOT TO SCALE



**C** **SECTION**  
**SLIMES DRAIN LATERAL**  
SCALE: 1" = 1'  
NOT TO SCALE



**8** **DETAIL (TYPICAL)**  
**PERFORATED PIPE**  
SCALE: N.T.S.  
NOT TO SCALE



**D** **SECTION**  
**SPLASH PAD**  
SCALE: 1" = 1'  
NOT TO SCALE

- NOTES:
- CONTECH STRIPPAN 80 TO CONNECT TO 4" DIAMETER PVC HEADER PIPE USING STANDARD END OUTLET FITTING. OPEN ENDS OF CONTECH STRIPPAN 80 TO BE TAPED CLOSED.
  - DETAILS ARE SHOWN TO SCALE INDICATED EXCEPT FOR THE GEOSYNTHETICS, WHICH ARE SHOWN AT AN EXAGGERATED SCALE FOR CLARITY. SOIL THICKNESS ARE MINIMUMS.



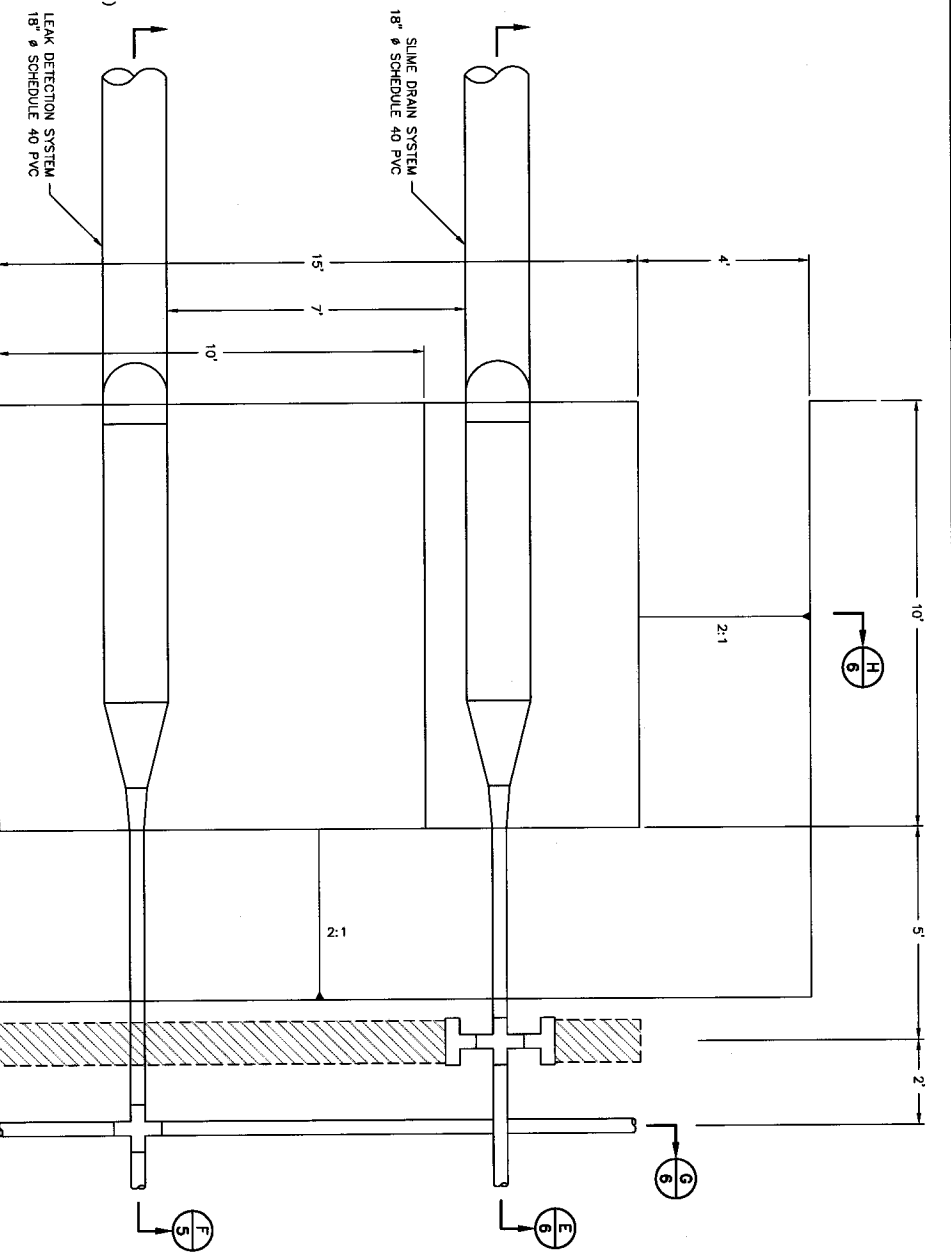
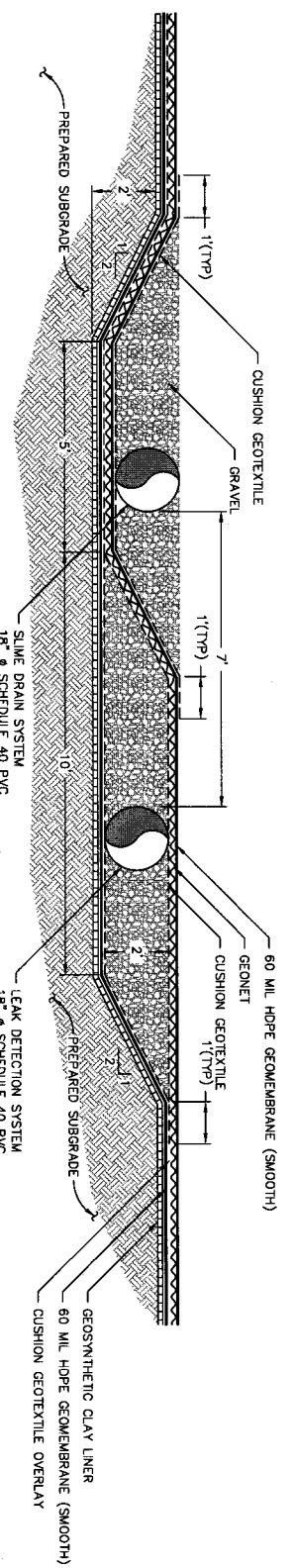
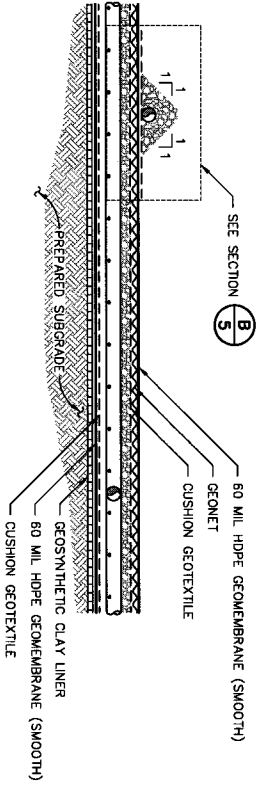
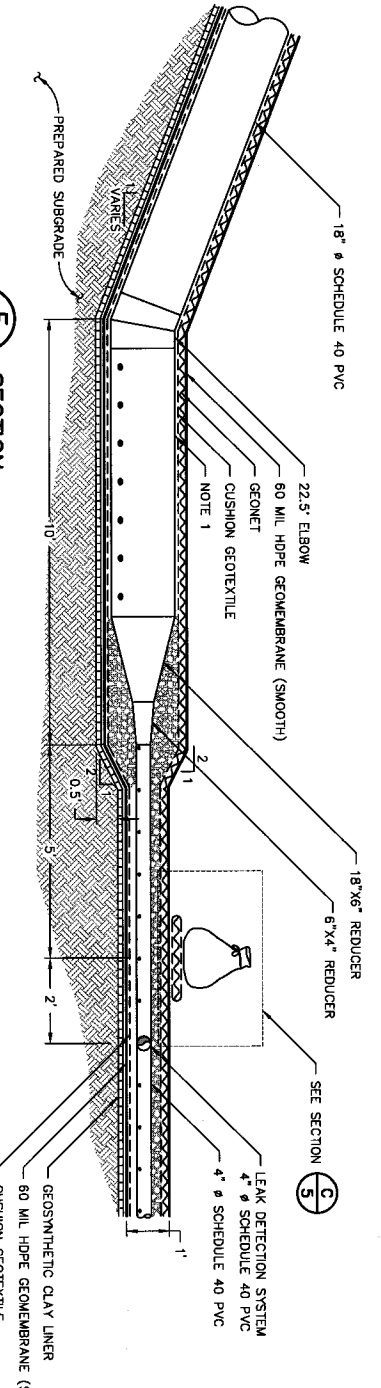
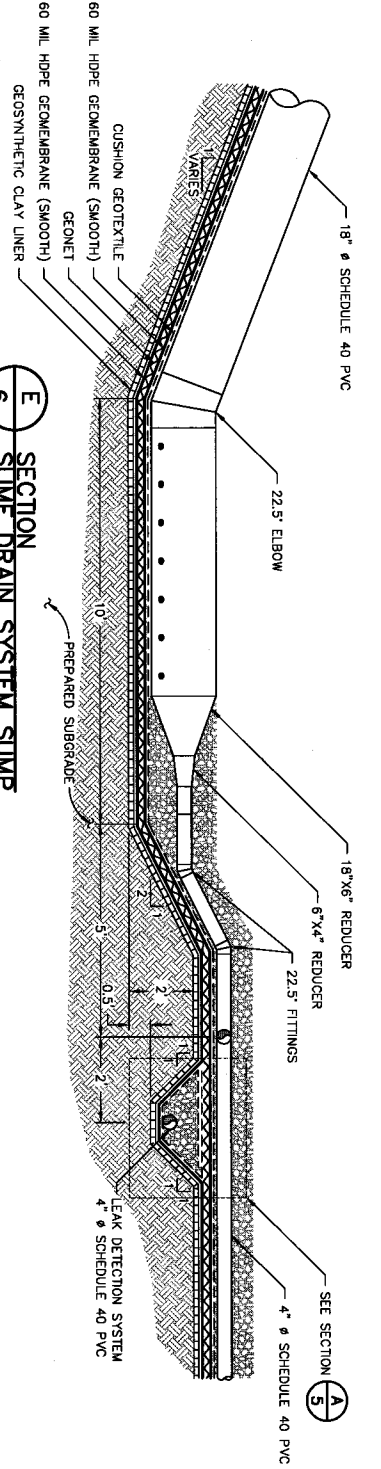
**JUC** **GEOSYNTHETIC CONSULTANTS**  
10075 RANCHO BERNARDO ROAD, SUITE 200  
SAN DIEGO, CALIFORNIA 92127  
TELEPHONE: (619) 671-6559



PROJECT: CELL 4A, WHITE MESA MILL  
BLANDING, UTAH

TITLE: LINING SYSTEM DETAILS I

MARK	DATE	BID SET	REVISION	BY	APPROVED
0	06/02/06			JA	GTC
<small>THIS DRAWING MAY NOT BE ISSUED FROM PROJECT TENDER OR FOR CONSTRUCTION, UNLESS SIGNED AND SEALED BY THE DESIGNER.</small>					
DATE:	JANUARY 2006	SCALE:	AS SHOWN		
DESIGN BY:	GTC	DWG NO.:	SC0349-01		
DRAWN BY:	SLB	FILE NO.:	0349C005		
CHECKED BY:	GTC	DOCUMENT NO.:			
REVIEWED BY:	GTC	DRAWING NO.:			
DATE:		SHEET:	5	OF	7



**9 PLAN SUMP**  
 SCALE: 1" = 2'  
 N.T.S.

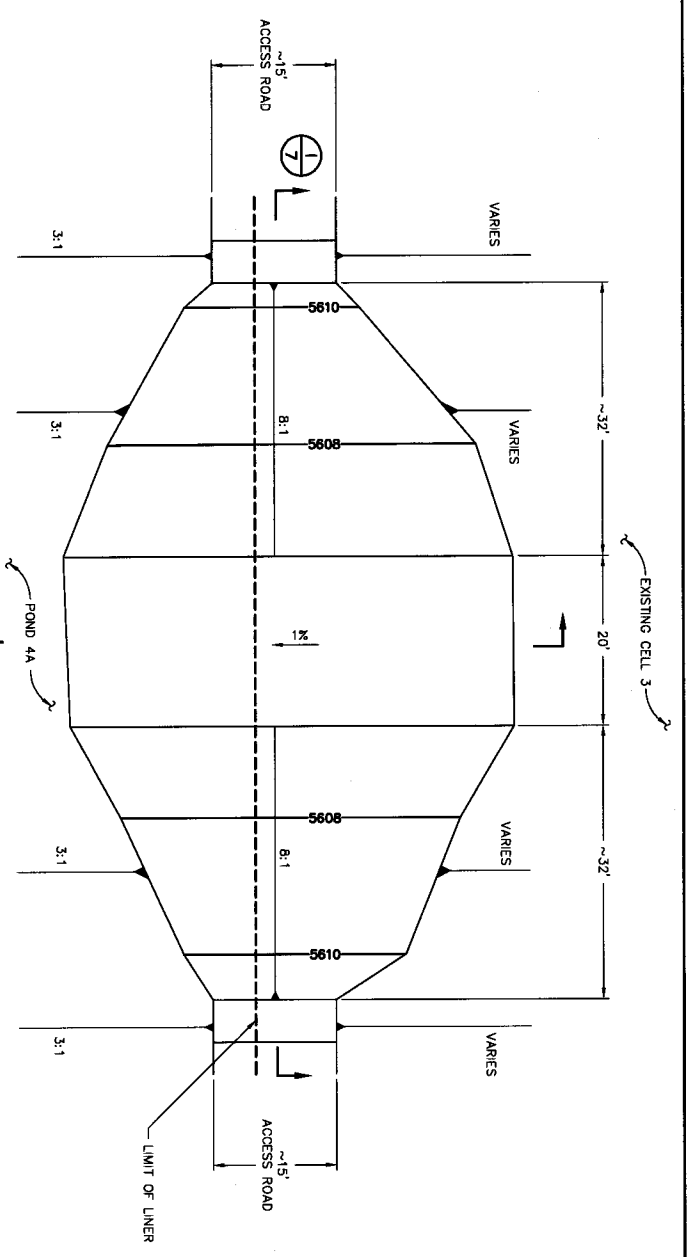
- NOTES:
- HORIZONTAL PORTION OF 18-IN. PVC PIPE SHALL BE PERFORATED AS INDICATED ON DETAIL 8.
  - DETAILS ARE SHOWN TO SCALE INDICATED EXCEPT FOR THE GEOSYNTHETICS, WHICH ARE SHOWN AT AN EXAGGERATED SCALE FOR CLARITY. SOIL THICKNESS ARE MINIMUMS.

**PROJECT:** CELL 4A, WHITE MESA MILL  
 BLANDING, UTAH

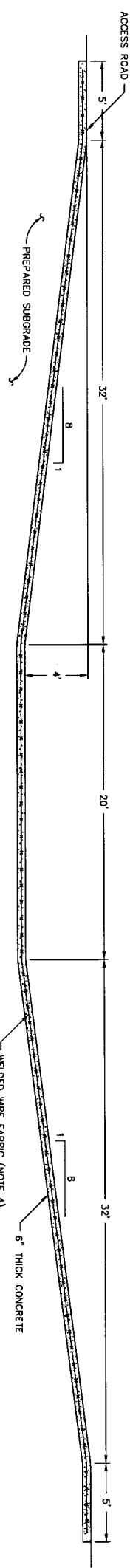
**CLIENT:** GEOSYNTIC CONSULTANTS  
 10875 RANCHO BERNARDO ROAD, SUITE 200  
 SAN DIEGO, CALIFORNIA 92127  
 TELEPHONE: (619) 674-6559

**TITLE:** LINING SYSTEM DETAILS II

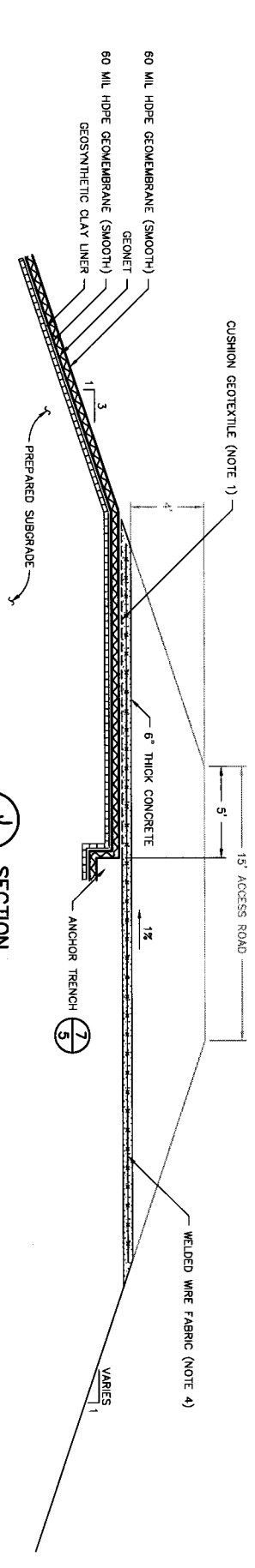
DATE	06/02/06	BID SET	JA	GTC
MARK			BY	APPROVED
REVISION	DATE	SCALE	AS SHOWN	
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DRAWN BY:	SLB	FILE NO.:	0349C006	
CHECKED BY:	GTC	DOCUMENT NO.:		
REVIEWED BY:	GTC	DRAWING NO.:	6	OF 7
APPROVED BY:	GTC			



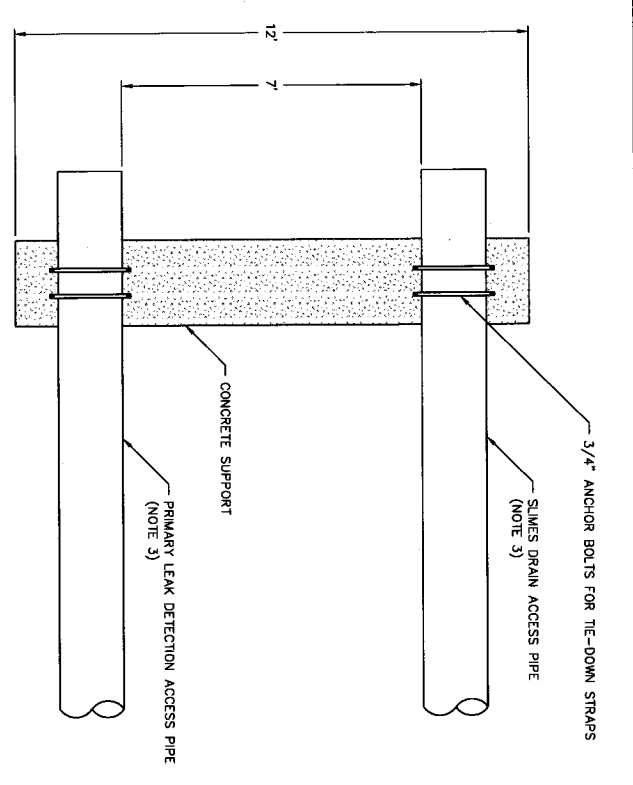
**10 PLAN EMERGENCY SPILLWAY**  
SCALE: 1" = 10'  
SEE OVERLAYS



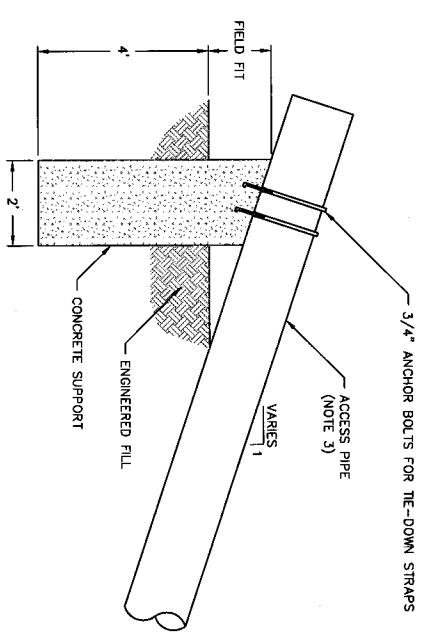
**1 SECTION EMERGENCY SPILLWAY**  
SCALE: 1" = 4'  
SEE OVERLAYS



**2 SECTION EMERGENCY SPILLWAY**  
SCALE: 1" = 4'  
SEE OVERLAYS



**11 DETAIL PIPE SUPPORT**  
SCALE: 1" = 2'  
SEE OVERLAYS



- NOTES:**
1. CUSHION GEOTEXTILE SHALL BE PLACED OVERLYING PRIMARY GEOMEMBRANE WHERE CONCRETE IS INSTALLED.
  2. DETAILS ARE SHOWN TO SCALE INDICATED EXCEPT FOR THE GEOSYNTHETICS, WHICH ARE SHOWN AT AN EXAGGERATED SCALE FOR CLARITY. SOIL THICKNESS ARE MINIMUMS.
  3. EXPOSED PVC PIPE SHALL BE PAINTED TO MINIMIZE DAMAGE DUE TO UV DAMAGE.
  4. WELDED WIRE FABRIC SHALL BE INSTALLED AT MIDSECTION OF CONCRETE SLAB.

**JUC** **GEOSYNTEC CONSULTANTS**  
18075 RANCHO BERNARDO ROAD, SUITE 200  
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PROJECT: CELL 4A, WHITE MESA MILL  
BLANDING, UTAH

TITLE: LINING SYSTEM DETAILS III

MARK	DATE	BY	APPROVED
0	06/02/06	BD SET	GTC
REVISION <td>DATE <td>BY <td>APPROVED</td> </td></td>	DATE <td>BY <td>APPROVED</td> </td>	BY <td>APPROVED</td>	APPROVED
DATE:	JANUARY 2006	SCALE:	AS SHOWN
DESIGN BY:	GTC	JOB NO.:	SC0349-01
DRAWN BY:	SLB	FILE NO.:	0349C007
CHECKED BY:	GTC	DOCUMENT NO.:	-----
REVIEWED BY:	GTC	DRAWING NO.:	-----
APPROVED BY:	GTC	SCALE:	7" OF 7"

THIS DRAWING MAY NOT BE ISSUED FOR PROJECT TENDER OR FOR CONSTRUCTION UNLESS SIGNED AND DATED BY THE DESIGNER.

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

June 22, 2006

**VIA E-MAIL AND OVERNIGHT DELIVERY**

Mr. Dane L. Finerfrock  
Director  
Division of Radiation Control  
Department of Environmental Quality  
168 North 1950 West  
P.O. Box 144850  
Salt Lake City, UT 84114-4850

JUN 23 2006

*File*  
*IUC*  
*Cell 4A*  
*Interrog.*  
*Rnd 2*  
*Partial-Response.*

Re: Cell 4A Lining System Design Report, Round 2 Interrogatory Response

Dear Mr. Finerfrock:

Enclosed please find responses to a portion of the Round 2 Interrogatories on the Cell 4A Design Report. These responses should address Interrogatory numbers 2, 3, 4, 11, 14 and 15. Interrogatory number 1 was discussed with DRC staff during our meeting on June 20 and we will be providing additional information on the sampling details and justification for the frequency of sampling in a follow-up submittal.

Responses to the remaining Round 2 Interrogatories will be submitted under separate cover.

If you have any additional requests please feel free to contact me at 303 389-4160.

Very truly yours,



Harold R. Roberts  
Vice President – Corporate Development

cc: Ron F. Hochstein, w/ enclosure