

**State of Co**  
**Oil and Gas Conservation Commission**

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax: (303)894-2109



**RECEIVED**

NOV 15 2010

**COGCC**

**EARTHEN PIT REPORT/PERMIT**

This form is to be used for both reporting and permitting pits. Rule 903 describes when a Permit with prior approval, or a Report within 30 days, is required for pits. Submit required attachments and forms.

**Complete the  
Attachment Checklist**

Oper OGCC

**FORM SUBMITTED FOR:**

*AK*



**Pit Report**



**Pit Permit**

Detailed Site Plan	<input checked="" type="checkbox"/>	
Topo Map w/ Pit Location	<input checked="" type="checkbox"/>	
Water Analysis (Form 26)		
Source Wells (Form 26)		
Pit Design/Plan & Cross Sec	<input checked="" type="checkbox"/>	
Design Calculations	<input checked="" type="checkbox"/>	
Sensitive Area Determin.	<input checked="" type="checkbox"/>	
Mud Program		
Form 2A		

OGCC Operator Number: 96850

Name of Operator: Williams Production RMT

Address: 1058 County Rd 215

City: Parachute State: CO Zip: 81635

Contact Name and Telephone:

Karolina Blaney

No: 970 683-2295

Fax: (970) 285-9573

API Number (of associated well): NA

OGCC Facility ID (of other associated facility): 149 B15 - Fox ID

Pit Location (Qtr Qtr, Sec, Twp, Rng, Meridian): S 10E, T7S, R96W, 6TH P.M.

Latitude: 38-28-15.78"N 31.471029 Longitude: 108-03-53.67"W -108.064932 County: GARFIELD

Pit Use: ☒ Production ☐ Drilling (Attach mud program) ☐ Special Purpose (Describe Use): \_\_\_\_\_

Pit Type: ☒ Lined ☐ Unlined Surface Discharge Permit: ☐ Yes ☒ No

Offsite disposal of pit contents: ☒ Injection ☐ Commercial Pit/Facility Name: GRAND VALLEY PIT 2 Pit/Facility No: #2

**Attach Form 26 to identify Source Wells and Form 26 to provide Produced Water Analysis results.**

**Existing Site Conditions**

Is the location in a "Sensitive Area?" ☐ Yes ☒ No **Attach data used for determination.**

Distance (in feet) to nearest surface water: 1715 ground water: 15' 145' water wells: 2825

**LAND USE (or attach copy of Form 2A if previously submitted for associated well) Select one which best describes land use:**

Crop Land: ☐ Irrigated ☐ Dry Land ☐ Improved Pasture ☐ Hay Meadow ☐ CRP

Non-Crop Land: ☒ Rangeland ☐ Timber ☐ Recreational ☐ Other (describe): \_\_\_\_\_

Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

**SOILS (or attach copy of Form 2A if previously submitted for associated well)**

Soil map units from USNRCS survey: Sheet No: NA Soil Complex/Series No: 57

Soils Series Name: 57-POTTS-LIDEFONSO COMPLEX Horizon thickness (in inches): A: 0-4 ; B: 4-28 ; C: 28-60

Soils Series Name: 35-POTTS-LIDEFONSO COMPLEX Horizon thickness (in inches): A: 0-8 ; B: 8-60 ; C: \_\_\_\_\_

**Attach detailed site plan and topo map with pit location.**

**Pit Design and Construction**

Size of pit (feet): Length: 343.1 Width: 265.6 Depth: 15

Calculated pit volume (bbls): 181,418 Daily inflow rate (bbls/day): VARIABLE

Daily disposal rates (attach calculations): Evaporation: NA bbls/day Percolation: NA bbls/day

Type of liner material: SYNTHETIC POLYPROPYLENE ethylene or Thickness: 60 MIL

**Attach description of proposed design and construction (include sketches and calculations).**

Method of treatment of produced water prior to discharge into pit (separator, heater treater, other): NA

Is pit fenced? ☒ Yes ☐ No Is pit netted? ☒ Yes ☐ No

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: Karolina Blaney

Signed: Karolina Blaney

Title: Environmental Specialist

Date: 11/8/2010

OGCC Approved: [Signature] Title: Env. Sup. Date: 1/4/2011

CONDITIONS OF APPROVAL, IF ANY:

**FACILITY NUMBER:** 426955

*See Attached Conditions of Approval*

**Conditions of Approval – January 4, 2012**

**Grand Valley Pit # 2; Facility ID: 426955**

Pit is constructed in fill. Provide a Professional Engineer (P.E.) stamped review of the as-built construction of the pit and integrity of the pit.

Provide the as-built construction details.

The date provided on the "Sub Grade Acceptance" is the same for the Grand Valley Pit 1, Grand Valley Pit 2, and Grand Valley Pit 3. It appears that the "Sub Grade Acceptance" is applicable for Grand Valley 3. There were apparent weather related issues during the install of the 60 mil liner and 8 ounce textile under liner. Provide an engineering evaluation (by a P.E.) of the liner installation and "Sub Grade Acceptance."

Provide the historical use and maintenance of the pit.

Provide documentation detailing the historical use and maintenance of the pit, including a timeline of significant maintenance events conducted.

Provide an operation and maintenance (O & M) plan and schedule for the pit.

Provide the daily inflow rate and description of how total fluids management is monitored to evaluate for potential loss through the liner system.

Conduct a 72-hour (minimum) hydrostatic integrity test of the liner system and submit a P.E. review and evaluation of the results of the test.

Leak detection is required for this pit (Rule 904.e.). Provide design and implementation details for leak detection system.

Provide the geologic/hydrogeologic evaluation of the facility which was provided to Garfield County.

*Submit Requested information above by March 1, 2012.*

## **Fischer, Alex**

---

**From:** Blaney, Karolina [Karolina.Blaney@williams.com]  
**Sent:** Monday, May 09, 2011 10:31 AM  
**To:** Fischer, Alex  
**Subject:** Williams - Grand Valley Pits coordinates - for the Form 15s approval

Alex,

During the last form 15 meeting you asked for the correct coordinates for the three Grand Valley pits in order to get the Form 15 applications approved.

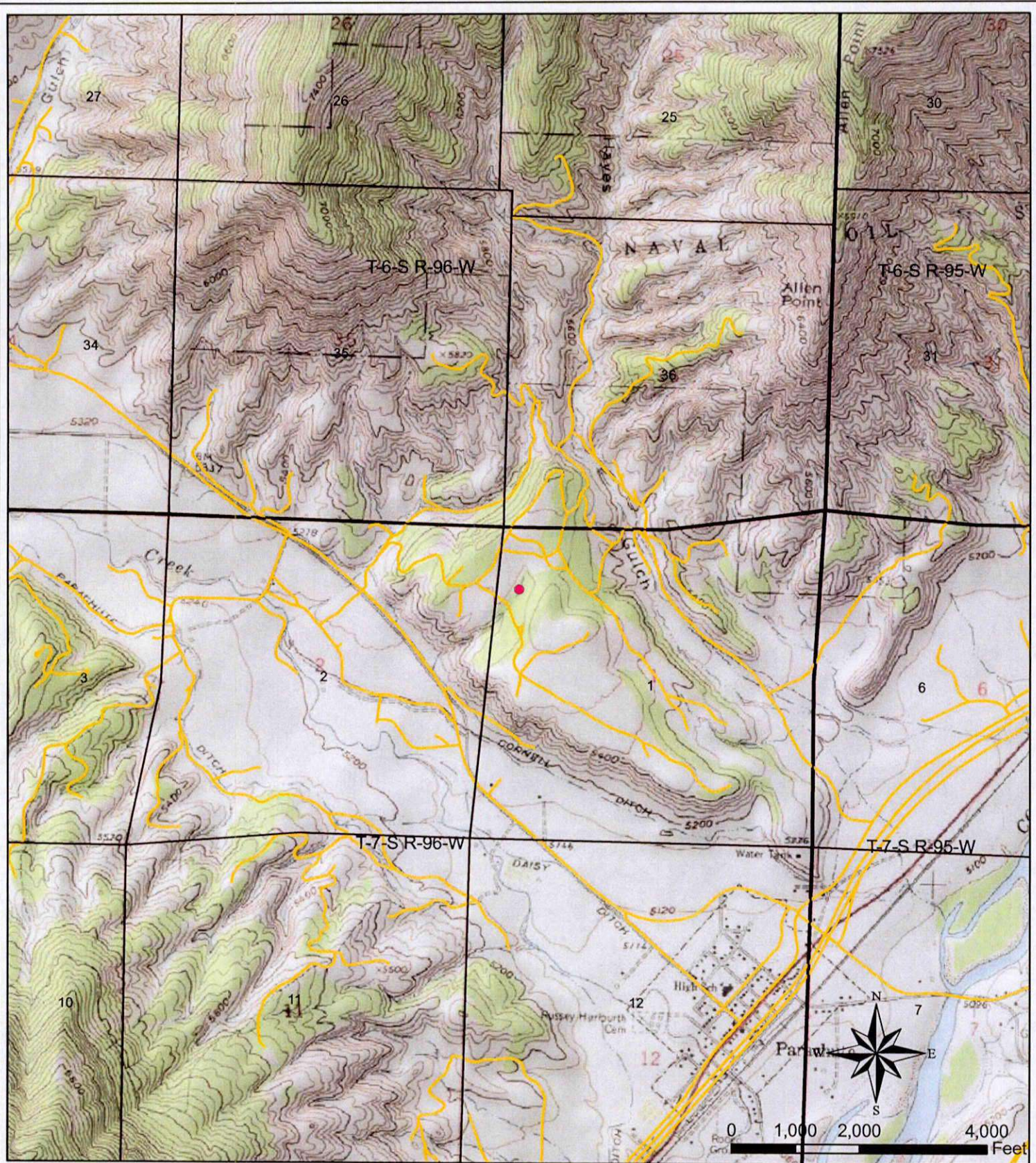
Here are the coordinates:

Grand Valley Pit #1 :	39.471484	-108.066295
Grand Valley Pit #2:	39.471029	-108.064932 ✓
Grand Valley Pit #3:	39.469651	-108.065376

Please let me know if you need anything else.  
Thank you and have a great day,

Karolina Blaney  
Environmental Specialist  
Williams Production R.M.T.  
Office: (970) 683-2295  
Cell: (970) 589-0743  
Fax: (970) 285-9573  
[karolina.blaney@williams.com](mailto:karolina.blaney@williams.com)





**Legend**

- Pit
- Road

Williams Production RMT

Pit Location Map



March 18, 2009

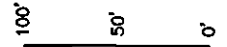


WILLIAMS PRODUCTION RMT  
PARACHUTE WATER HANDLING FACILITY

POND #2 (AS-BUILT DRAWING)

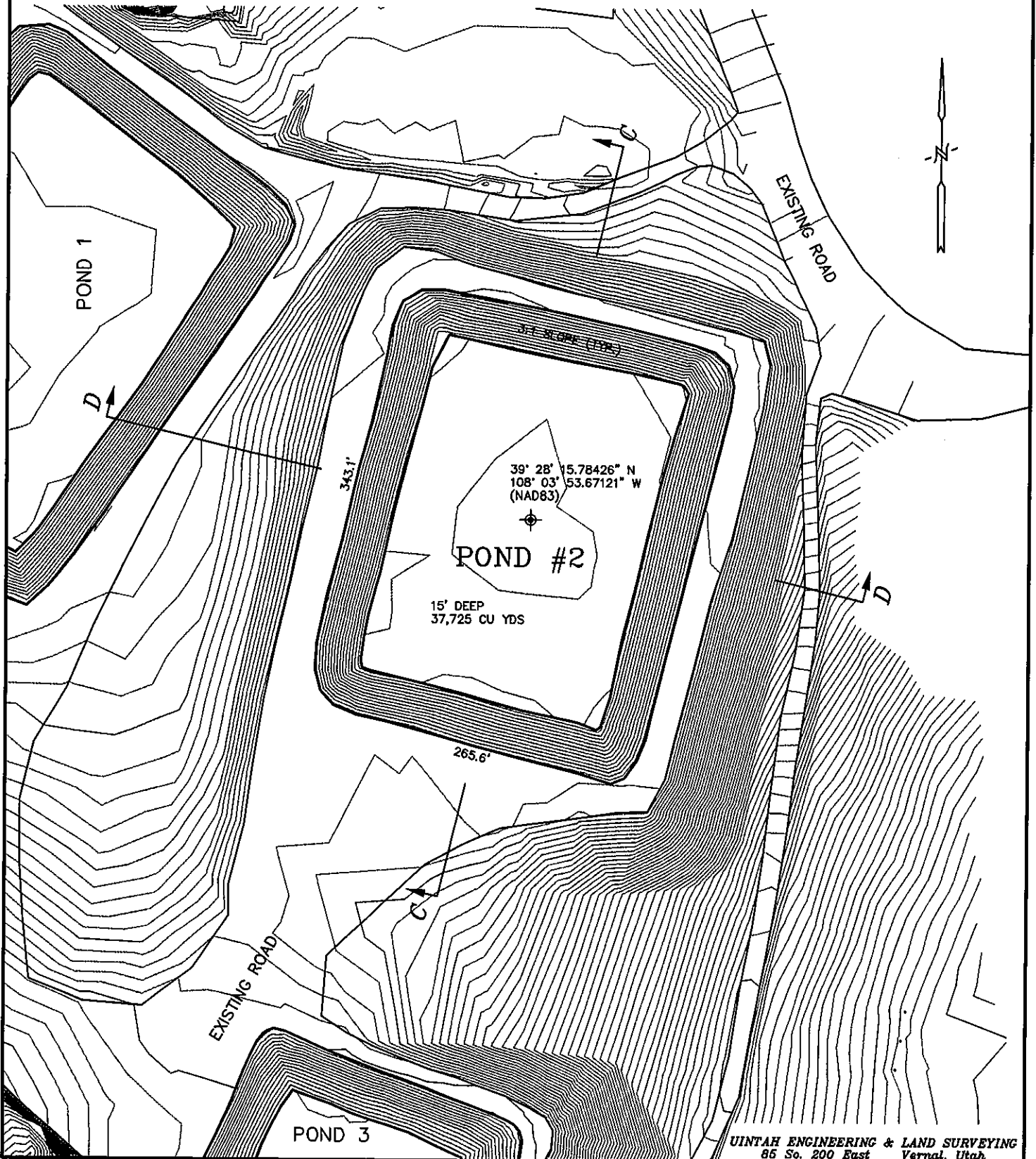
LOCATED IN THE NW 1/4 NW 1/4 OF  
SECTION 1, T7S, R96W, 6th P.M.

SHEET 1 OF 2



SCALE: HORIZONTAL  
& VERTICAL

DATE: 10-28-10  
Drawn By: D.G.W.



WILLIAMS PRODUCTION RMT  
PARACHUTE WATER HANDLING FACILITY

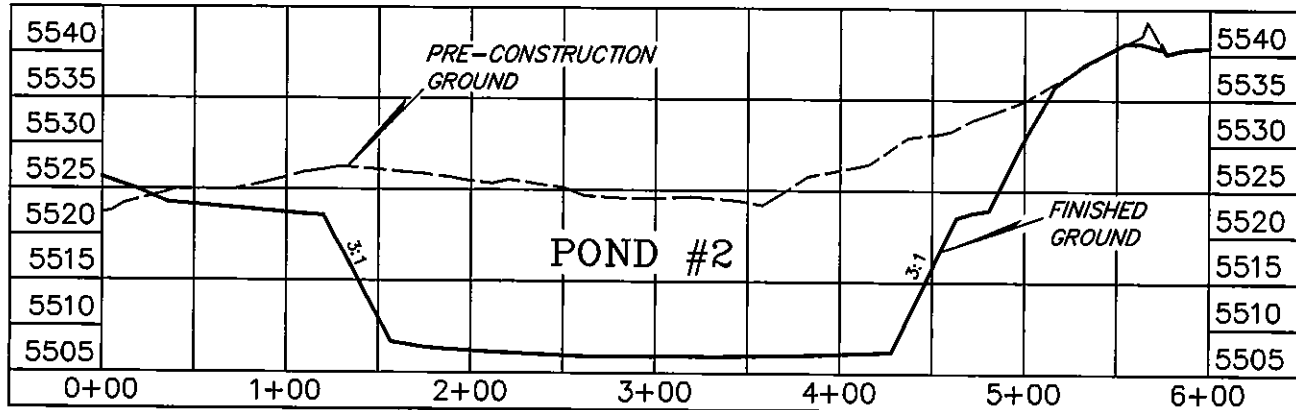
SHEET 2 OF 2

DATE: 10-28-10  
Drawn By: D.G.W.

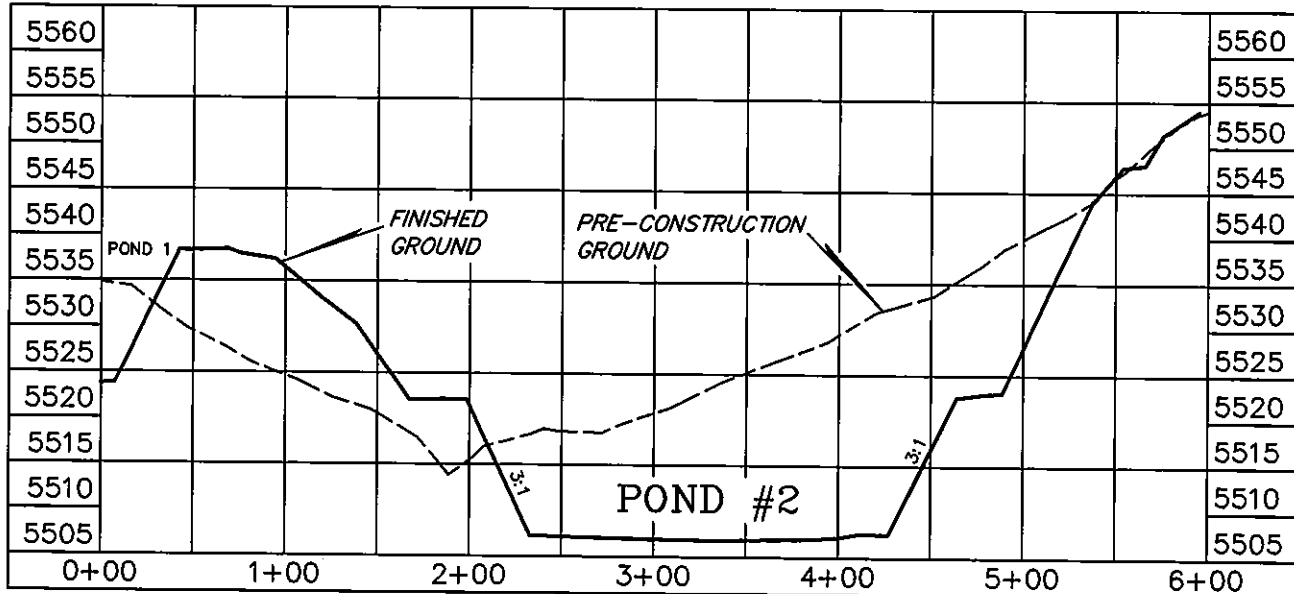
POND #2 (AS-BUILT DRAWING)  
LOCATED IN THE NW 1/4 NW 1/4 OF  
SECTION 1, T7S, R96W, 6th P.M.

SECTION C-C

100' 50' 0'  
SCALE: 1"=100' (HORIZONTAL)



SECTION D-D



POND #2:

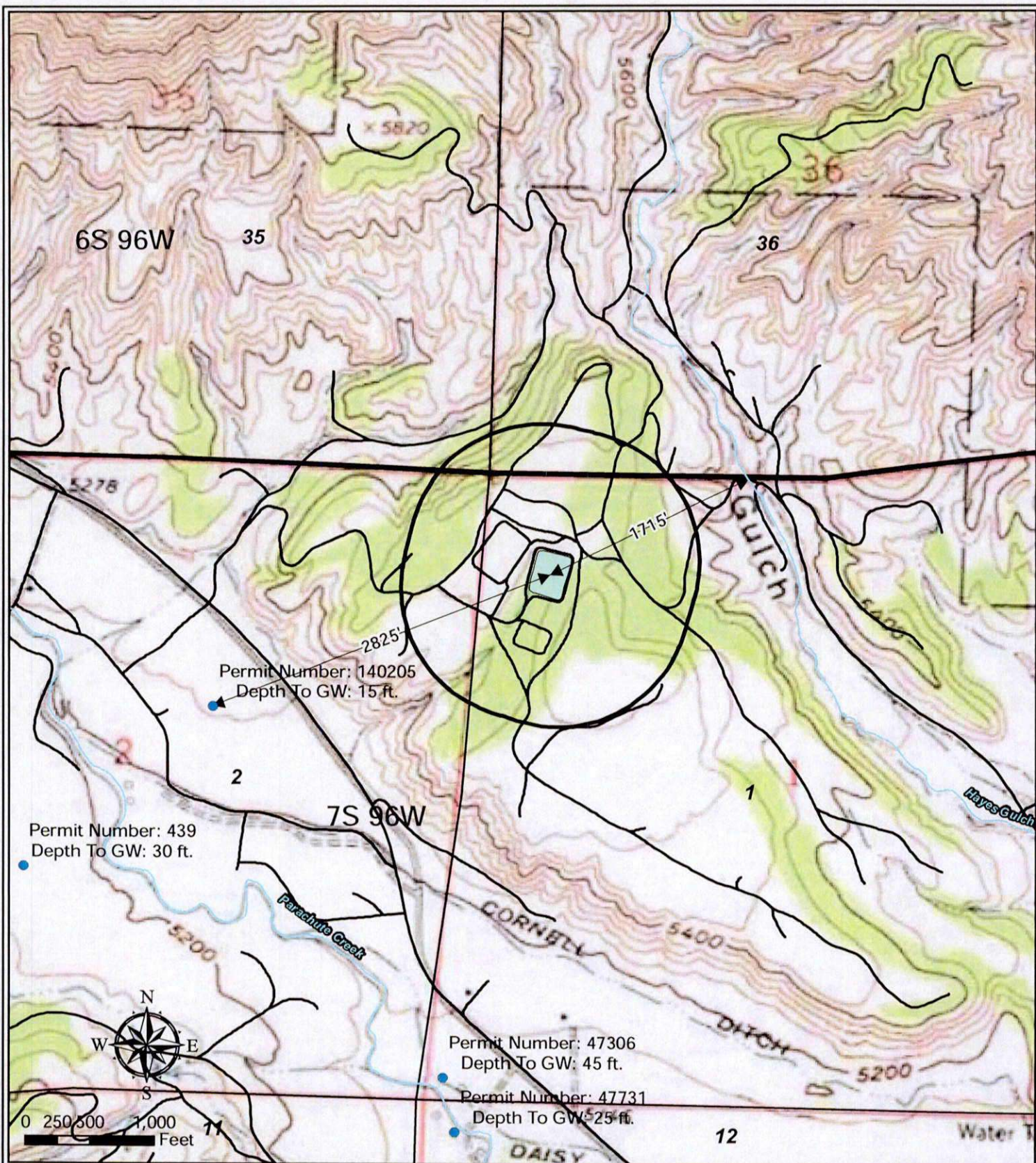
CAPACITY (FULL):

181,418 BBLS (37,725 CUBIC YARDS)

CAPACITY (WITH 2' FREEBOARD):

150,933 BBLS (31,368 CUBIC YARDS)





#### Legend

- Water Well
- Stream
- ↔ Distance Vector
- Existing Road
- 1000' Buffer
- Produced Water Pond

Williams Production RMT



Produced Water Pond Hydrology Map  
T7S R96W, Section 1



## Sensitive Area Determination Checklist

Williams Production RMT Company		
<b>Person(s) conducting inspection</b>	Mark E. Mumby	11/8/2010
<b>Site Information</b>		
Location:	Grand Valley Pond 2	Time:
Type of Facility:	Produced Water Storage Pond	
<b>Environmental Conditions</b>		
Temperature (°F)		

Has the proposed, new or existing location been designated as a sensitive area?

☐ Yes      ☒ No

### **SURFACE WATER**

1. Are there any surface water features or SWSAs adjacent to or within ¼ mile of the proposed/new or existing facility?

☒ Yes      ☐ No

If yes, list type of surface water feature(s), i.e. rivers, creeks, streams, seeps, springs, wetlands: One unnamed ephemeral drainage

If yes, describe location relative to facility: The unnamed ephemeral drainage is located ~760 feet south southwest of the existing facility

2. Could a potential release from the facility reach surface water features?

☐ Yes      ☒ No

If yes, describe the pathway a release from the facility would likely follow to determine if the potential to impact surface water is high or low.

3. Is the potential to impact surface water from a facility release high or low?

☐ High      ☒ Low



## GROUNDWATER

1. Will the proposed/new or existing facility have any pits which will contain hydrocarbons and chlorides or other E&P wastes?

☒ Yes      ☐ No

If yes, List the pit type(s): Produced Water Storage Pond

2. Is the site of the proposed facility underlain by an unconfined aquifer or recharge zone?

☐ Yes      ☒ No

3. Is the hydraulic conductivity of the underlying soil or geologic material  $\leq 1.0 \times 10^{-7}$  cm/sec?

☐ Yes      ☒ No

4. Is the proposed facility located within 1/8 mile of a domestic water well or 1/4 mile of a public water supply well which would use the same aquifer?

☐ Yes      ☒ No

5. Is the proposed facility located within a 100 year floodplain?

☐ Yes (*Sensitive Area*)      ☒ No (*If no, proceed to question #6.*)

6. Is the depth to groundwater known?

☐ Yes (*If yes, follow instructions provided in 5(a) of this section.*)

☒ No (*If no, follow instructions provided in 5(b) of this section.*)

- (a) If yes, could a potential release from the proposed facility reach groundwater?

☐ Yes      ☐ No

If yes, explain:

- (b) If no:

- (i) Evaluate surrounding soils, topography, and vegetation which may suggest the presence of shallow groundwater.
- (ii) Gather information from surrounding well data in order to determine a depth to groundwater, i.e. State Engineers Office.
- (iii) Drill a soil boring to determine depth to groundwater or
- (iv) Model hydro geologic conditions to determine if the potential to impact groundwater is high or low.

7. Is the potential to impact ground water from the facility in the event of a release high or low?

☐ High      ☒ Low

**Additional Comments:**

There is one surface water feature that was identified during a previous site visit and desk top review. The surface water features was identified as an unnamed ephemeral drainage. The unnamed ephemeral drainage is shown on the older topographical maps to be within 500 feet of the existing facility. By COGCC decision this would place the facility within a sensitive area. However, with the construction of the three produced water ponds; the ground surface has been recontoured and the drainage as it is shown on the topographical map no longer exists. The distance to the remnants of the drainage to the south southeast of the facility is now approximately 760 feet away. A potential release if it were to migrate out of the pond would tend to migrate to the flat lying areas adjacent to the pond. Therefore the potential for a release to reach the remnants of the ephemeral drainage to the south of the facility would be practically non-existent.

Groundwater data from the state engineer's office indicates that there are no permitted water wells within  $\frac{1}{4}$  mile of the existing facility. The closest permitted water well is 2,825 feet to the southwest of the facility. Based on observations during a previous site visit, field data collected from recent site investigation activities, and pit construction, it appears that the depth to groundwater, if present, in the immediate vicinity of the facility is at a depth greater than 50 feet. The pond is also lined further reducing any potential to impact groundwater.

Based on the information collected during the previous site investigation and desktop review, the potential to impact surface water features has been deemed to be low to practically non-existent high. Based on the topographical setting of the proposed facility the potential to impact ground water has been deemed low as well. Therefore the proposed facility should be designated as being in a non-sensitive area.

Inspector Signature(s): M/E M. J. M. J. Date: 11/8/2010



## LINER SPECIFICATIONS

# High Density Polyethylene Smooth Liner™



## Product Data

Property	Test Method	Values				
Thickness (min. ave.), mil (mm)	ASTM D5199*	30 (.75)	40 (1.0)	60 (1.5)	80 (2.0)	100 (2.5)
Thickness (lowest indiv.), mil (mm)	ASTM D5199*	27 (.68)	36 (.90)	54 (1.35)	72 (1.80)	90 (2.25)
*The thickness values may be changed due to project specifications (i.e., absolute minimum thickness)						
Density, g/cc, minimum	ASTM D792, Method B	0.94	0.94	0.94	0.94	0.94
Tensile Properties (ave. both directions)	ASTM D6693, Type IV					
Strength @ Yield (min. ave.), lb/in width (N/mm)	2 in/minute	66 (11.6)	88 (15.4)	132 (23.1)	176 (30.8)	220 (38.5)
Elongation @ Yield (min. ave.), % (GL=1.3in)	5 specimens in each direction	13	13	13	13	13
Strength @ Break (min. ave.), lb/in width (N/mm)		120 (21)	160 (28)	240 (42)	320 (56)	400 (70)
Elongation @ Break (min. ave.), % (GL=2.0in)		700	700	700	700	700
Tear Resistance (min. ave.), lbs. (N)	ASTM D1004	23 (102)	30 (133)	45 (200)	60 (267)	72 (320)
Puncture Resistance (min. ave.), lbs. (N)	ASTM D4833	60 (267)	80 (356)	120 (534)	160 (712)	190 (845)
Carbon Black Content (range in %)	ASTM D4218	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3
Carbon Black Dispersion (Category)	ASTM D5596	Only near spherical agglomerates for 10 views: 9 views in Cat. 1 or 2, and 1 view in Cat. 3				
Stress Crack Resistance (Single Point NCTL), hours	ASTM D5397, Appendix	300	300	300	300	300
Oxidative Induction Time, minutes	ASTM D3895, 200°C, 1 atm O <sub>2</sub>	≥100	≥100	≥100	≥100	≥100
Melt Flow Index, g/10 minutes	ASTM D1238, 190°C, 2.16kg	≤1.0	≤1.0	≤1.0	≤1.0	≤1.0
Oven Aging	ASTM D5721	80	80	80	80	80
with HP OIT, (% retained after 90 days)	ASTM D5885, 150°C, 500psi O <sub>2</sub>					
UV Resistance	GRI GM11	20hr. Cycle @ 75°C/4 hr. dark condensation @ 60°C				
with HP OIT, (% retained after 1600 hours)	ASTM D5885, 150°C, 500psi O <sub>2</sub>	50	50	50	50	50

These product specifications meet or exceed GRI's GM13

## Supply Information (Standard Roll Dimensions)

Thickness		Width		Length		Area (approx.)		Weight (average)	
mil	mm	ft	m	ft	m	ft <sup>2</sup>	m <sup>2</sup>	lbs	kg
30	.75	23	7	803.8	245	18,461	1,715	3,050	1,383
40	1.0	23	7	649.6	198	14,919	1,386	3,075	1,395
60	1.5	23	7	419.9	128	9,645	896	3,006	1,364
80	2.0	23	7	321.5	98	7,384	686	3,067	1,391
100	2.5	23	7	249.3	76	5,727	532	3,006	1,364

### Notes:

All rolls are supplied with two slings. All rolls are wound on a 6 inch core. Special roll lengths are available on request.  
All roll lengths and widths have a tolerance of ±1%

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500 Garrison Road, Georgetown, South Carolina 29440

843-546-0600

800-373-2478

Fax: 843-527-2738

email: salesmkg@agruamerica.com

www.agruamerica.com

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## LINER TEST

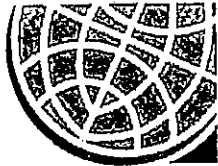


## **Installation Reports**

*for*

***Hayes Evap Pit***





### Daily Installation Report

Date: 6/2/09  
Project: HAYES EVAP PIT POND 2  
Owner: WILLIAMS PRODUCTION  
Engineer:  
Contractor: MB CONSTRUCTION  
Installation Supervisor: ROGER BARNES  
Material: 60 MIL HDT, 8 OZ TEXTILE

Fusion Weld   X   Extrusion Weld       

#### DAILY SEAM STRENGTH TEST

Date of Test	Time of Test	Ambient Air Temp.	Unit Temp	Pre-Heat Temp	Unit Speed	Peel Value lb/inch/width	Shear Value	Welding Tech	Unit No.	Pass/Fail
6/2/09	6:15	53	800		6.5	132/136	173	RG	0033	P
						123/132	171			
						127/120				
6/2/09	6:20	53	800		7.0	111/119	144	JH	1548	P
						114/127	161			
						147/116				
6/2/09	10:20	69	800		7.9	129/127	154	RG	1547	P
						123/117	154			
						114/119				
						/				
						/				
						/				

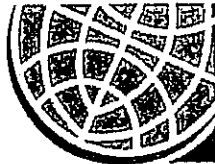
#### DAILY RECAP

Quantity Installed	Weather	Contract Labor Hours	Equipment Maintenance / Greasing
	80&SUNNY & WINDY & RAINY	0	T-300

Comments: PULLED IN LINER ALL DAY UNTIL ABOUT 3:00PM WHEN THE WIND AND THE RAIN STARTED. LOST ¼ OF LAST PANEL. SANDBAGGED EVERYTHING.

CLI / CLEARWATER

1062 Singing Hills Road Parker, Colorado 80138 / 1-800-524-8672 / 303-841-2022 / Fax 303-841-5780 / www.coloradolining.com



## Daily Installation Report

Date: 6/5/09  
Project: HAYES EVAP PIT POND 2  
Owner: WILLIAMS PRODUCTION  
Engineer:  
Contractor: MB CONSTRUCTION  
Installation Supervisor: ROGER BARNES  
Material: 60 MIL HDT, 8OZ TEXTILE

Fusion Weld  X  Extrusion Weld  X

### DAILY SEAM STRENGTH TEST

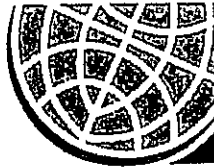
Date of Test	Time of Test	Ambient Air Temp.	Unit Temp.	Pre-Heat Temp.	Unit Speed	Peel Value Inside/Outside	Shear Value	Welding Tech.	Unit No.	Pass/Fail
6/5/09	6:00	56	800		6.2	105/136	136	JH	1548	P
						112/133	130			
						126/135				
6/5/09	6:00	56	800		7.0	123/126	147	RG	1547	P
						120/122	152			
						120/127				
6/5/09	8:00	66	500	450		111/	150	SS	1549	P
						114/	145			
						114/				
6/5/09	1:00	81	500	400		110/	144	SS	1549	P
						98/	142			
						111/				

### DAILY RECAP

Quantity Installed	Weather	Contract Labor Hours	Equipment Maintenance / Greasing
0	81 & CLOUDY & WINDY	0	T-300

Comments: RAN TIE IN, AIRTESTED, REPAIRED & V-BOXED. PICKED UP TRASH, RE-SANDBAGGED THE TOE AND LAST PANEL. ALL LINER 100%. WE STILL NEED TO DO THE BOOT BUT THE PIPE IS NOT IN YET. GOING TO LAY LINER AND TEXTILE IN MORNING.





### Daily Installation Report

Date: 6/6/09  
Project: HAYES EVAP PIT POND 2  
Owner: WILLIAMS PRODUCTION  
Engineer:  
Contractor: MB CONSTRUCTION  
Installation Supervisor: ROGER BARNES  
Material: 60 MIL HDT, 80Z TEXTILE

Fusion Weld  X  Extrusion Weld  X

### DAILY SEAM STRENGTH TEST

Date of Test	Time of Test	Ambient Air Temp	Unit Temp	Pre-Heat Temp	Unit Speed	Peel Value Inch/Minute	Shear Value	Welding Tech	Unit No	Pass/Fail
6/6/09	8:30	67	800		7.0	126/128	153	JH	1662	P
						125/121	147			
						119/137				
6/6/09	8:45	67	800		8.0	138/142	145	RG	1547	P
						134/140	146			
						138/130				
6/6/09	1:35	74	500	400		128/	143	SS	1549	P
						111/	142			
						143/				
						/				
						/				
						/				

### DAILY RECAP

Quantity Installed	Weather	Contract Labor Hours	Equipment Maintenance/Greasing
	80&WINDY	0	T-300

Comments: PULLED TEXTILE TILL 8:30 UNROLLED THE LAST PANEL THAT BLEW AWAY. RESET IT AND CLEANED ALL MUD OFF. RAN THAT SEAM AND PULLED IN 2 PANELS. WINDY AFTER LUNCH SO WE DID REPAIRS FOR THE REST OF DAY. THE POND SHOULD BE BLACKED OUT IN MORNING



### Daily Installation Report

Date: 6/7/09  
Project: HAYES EVAP PIT POND 2  
Owner: WILLIAMS PRODUCTION  
Engineer:  
Contractor: MB CONSTRUCTION  
Installation Supervisor: ROGER BARNES  
Material: 60 MIL HDT, 80Z TEXTILE

Fusion Weld  X  Extrusion Weld

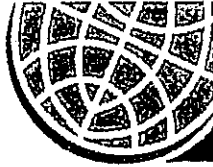
#### DAILY SEAM STRENGTH TEST

Date of Test	Time of Test	Ambient Air Temp.	Unit Temp.	Pre-Heat Temp.	Unit Speed	Peel Value <small>(Inside/Outside)</small>	Shear Value	Welding Tech.	Unit No.	Pass/Fail
6/7/09	6:00	58	800		6.7	112/132	138	JH	1662	P
						117/137	153			
						117/122				
						/				
6/7/09	6:00	58	800		7.0	151/128	174	RG	1547	P
						141/129	166			
						142/134				
						/				
						/				
						/				
						/				
						/				

#### DAILY RECAP

Quantity Installed	Weather	Contract Labor Hours	Equipment Maintenance / Greasing
	60&RAINY&	WINDY	T-300

Comments: ONSITE 6:00 LAID LAST TWO LONG PANELS. INSTALLED HALF THE EAST WALL. OFFSITE AT 10:00AM DUE TO RAIN AND WIND. WE HAD RAIN OFF AND ON THE WHOLE MORNING.



### Daily Installation Report

Date: 6/8/09  
Project: HAYES EVAP PIT POND 2  
Owner: WILLIAMS PRODUCTION  
Engineer:  
Contractor: MB CONSTRUCTION  
Installation Supervisor: ROGER BARNES  
Material: 60 MIL HDT, 80Z TEXTILE

Fusion Weld   X   Extrusion Weld       

#### DAILY SEAM STRENGTH TEST

Date of Test	Time of Test	Ambient Air Temp	Unit Temp	Pre-Heat Temp	Unit Speed	Peel Value Inches/Outside	Shear Value	Welding Tech	Unit No.	Pass/Fail
6/8/09	6:00	52	800		7.0	129/123	161	RG	1547	P
						131/121	167			
						139/129				
						/				
6/8/09	6:00	52	800			130/130	143	JH	1662	P
						127/121	153			
						127/129				
						/				
						/				
						/				
						/				
						/				

#### DAILY RECAP

Quantity Installed	Weather	Contract Labor Hours	Equipment Maintenance / Greasing
	79&WINDY	0	T-300

Comments: PULLED THE REST OF LINER FOR POND#2. TOO WARM FOR TIE IN  
SANDBAGGED AND PICKED TRASH. FILLED SANDBAGS AND PULLED IN TEXTILE IN  
POND#3.





## Daily Installation Report

Date: 6/9/09  
Project: HAYES EVAP PIT POND 2  
Owner: WILLIAMS PRODUCTION  
Engineer:  
Contractor: MB CONSTRUCTION  
Installation Supervisor: ROGER BARNES  
Material: 60 MIL HD 80Z TEXTILE

Fusion Weld  X  Extrusion Weld  X

### DAILY SEAM STRENGTH TEST

Date of Test	Time of Test	Ambient Air Temp	Unit Temp	Pre-Heat Temp	Unit Speed	Pect Value Inside/Outside	Shear Value	Welding Tech	Unit No.	Pass/Fail
6/9/09	6:00	58	800		6.4	120/138	141	JH	1662	P
						120/122	147			
						112/123				
6/9/09	6:00	58	800		7.0	127/125	156 158	RG	1547	P
						129/126				
						123/123				
						/				
6/9/09	8:00	65	500	400		110/	145	JL	1549	P
						111/	155			
						107/				
						/				
						/				

### DAILY RECAP

Quantity Installed	Weather	Contract Labor Hours	Equipment Maintenance / Greasing
0	80&SUNNY	RAIN IN AFTERNOON	T-300

Comments: RAN EAST TIE IN, AIRTESTED AND REPAIRED & V-BOXED. MOVED EXCESS SANDBAGS OUT OF POND. STAGED IN POND#3 AND PICKED UP ALL TRASH ON THE SITE. ONE CORNER OF THE TEXTILE IN 3 BLEW AWAY. PULLED THAT BACK IN AND PLACED MORE SANDBAGS ON IT. STARTED THE BOOTS BUT THEN IT RAINED SO WE WERE OFFSITE AT 3:00PM.



## Daily Installation Report

**Date:** 6/10/09  
**Project:** HAYES EVAP PIT POND 2  
**Owner:** WILLIAMS PRODUCTION  
**Engineer:**  
**Contractor:** MB CONSTRUCTION  
**Installation Supervisor:** ROGER BARNES  
**Material:** 60 MIL HDT, 80Z TEXTILE

Fusion Weld \_\_\_\_\_ Extrusion Weld X

## DAILY SEAM STRENGTH TEST

Date of Test	Time of Test	Ambient Air Temp.	Unit Temp.	Pre-Heat Temp.	Unit Speed	Peel Value Inlet/Outlet	Shear Value	Welding Tech.	Unit No.	Pass/Fail
6/10/09	6:56	52	500	400		110/ 100/	170 166	JL	1549	P
						100/ /				
6/10/09	12:00	80	500	350		109/ 104/ 106/ /	146 150	JL	1549	P
						/				
						/				
						/				
						/				
						/				

## DAILY RECAP

Quantity Installed	Weather	Contract Labor Hours	Equipment Maintenance / Greasing
0	80 & SUNNY &	RAIN	T-300

**Comments: ONSITE AT 6:00AM RAIN SO WE DID NOT PULL LINER. WAITED FOR ½ HR AND THE RAIN STOPPED SO WE WORKED ON THE BOOTS AND MOVED ALL LINER, SANDBAGS AND THE TRAILERS FROM LAYDOWN YARD TO A NEW ONE. DICK NEEDED ME, TOO, SO HE COULD MOVE DIRT. THEY STAGED OUT THE REST OF SANDBAGS IN POND#3. PICKED UP TRASH, ALL LINER IS 100%. WE ARE GOING TO START LINER IN POND#3 IN MORNING. WE DID HAVE RAIN OFF AND ON ALL DAY BUT SUBGRADE STILL LOOKS GOOD.**



### Daily Installation Report

Date: 6/7/09  
Project: HAYES EVAP PIT POND 2  
Owner: WILLIAMS PRODUCTION  
Engineer:  
Contractor: MB CONSTRUCTION  
Installation Supervisor: ROGER BARNES  
Material: 60 MIL HDT, 80Z TEXTILE

Fusion Weld  X  Extrusion Weld

#### DAILY SEAM STRENGTH TEST

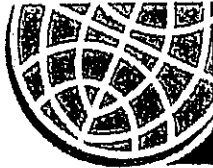
Date of Test	Time of Test	Ambient Air Temp.	Unit Temp.	Pre-Heat Temp.	Unit Speed	Peel Value Inside/Outside	Shear Value	Welding Tech.	Unit No.	Pass/Fail
6/7/09	6:00	58	800		6.7	112/132	138	JH	1662	P
						117/137	153			
						117/122				
						/				
6/7/09	6:00	58	800		7.0	151/128	174	RG	1547	P
						141/129	166			
						142/134				
						/				
						/				
						/				
						/				
						/				

#### DAILY RECAP

Quantity Installed	Weather	Contract Labor Hours	Equipment Maintenance / Greasing
	60&RAINY&	WINDY	T-300

Comments: ONSITE 6:00 LAID LAST TWO LONG PANELS. INSTALLED HALF THE EAST WALL. OFFSITE AT 10:00AM DUE TO RAIN AND WIND. WE HAD RAIN OFF AND ON THE WHOLE MORNING.





### Daily Installation Report

Date: 6/8/09  
Project: HAYES EVAP PIT POND 2  
Owner: WILLIAMS PRODUCTION  
Engineer:  
Contractor: MB CONSTRUCTION  
Installation Supervisor: ROGER BARNES  
Material: 60 MIL HDT, 8OZ TEXTILE

Fusion Weld  X  Extrusion Weld

#### DAILY SEAM STRENGTH TEST

Date of Test	Time of Test	Ambient Air Temp	Unit Temp	Pre-Heat Temp	Unit Speed	Peel Value <small>(inches/minute)</small>	Shear Value	Welding Tech	Unit No.	Pass/Fail
6/8/09	6:00	52	800		7.0	129/123	161	RG	1547	P
						131/121	167			
						139/129				
						/				
6/8/09	6:00	52	800			130/130	143	JH	1662	P
						127/121	153			
						127/129				
						/				
						/				
						/				
						/				
						/				

#### DAILY RECAP

Quantity Installed	Weather	Contract Labor Hours	Equipment Maintenance / Greasing
	79&WINDY	0	T-300

Comments: PULLED THE REST OF LINER FOR POND#2. TOO WARM FOR TIE IN  
SANDBAGGED AND PICKED TRASH. FILLED SANDBAGS AND PULLED IN TEXTILE IN  
POND#3.



### Daily Installation Report

Date: 6/9/09  
Project: HAYES EVAP PIT POND 2  
Owner: WILLIAMS PRODUCTION  
Engineer:  
Contractor: MB CONSTRUCTION  
Installation Supervisor: ROGER BARNES  
Material: 60 MIL HD 80Z TEXTILE

Fusion Weld  X  Extrusion Weld  X

#### DAILY SEAM STRENGTH TEST

Date of Test	Time of Test	Ambient Air Temp.	Unit Temp.	Pre-Heat Temp.	Unit Speed	Peel Value Inches/Minute	Slicer Value	Welding Techs	Unit No.	Pass/Fail
6/9/09	6:00	58	800		6.4	120/138	141	JH	1662	P
						120/122	147			
						112/123				
6/9/09	6:00	58	800		7.0	127/125	156 158	RG	1547	P
						129/126				
						123/123				
						/				
6/9/09	8:00	65	500	400		110/	145	JL	1549	P
						111/	155			
						107/				
						/				
						/				

#### DAILY RECAP

Quantity Installed	Weather	Contract Labor Hours	Equipment Maintenance / Greasing
0	80&SUNNY	RAIN IN AFTERNOON	T-300

Comments: RAN EAST TIE IN, AIRTESTED AND REPAIRED & V-BOXED. MOVED EXCESS SANDBAGS OUT OF POND. STAGED IN POND#3 AND PICKED UP ALL TRASH ON THE SITE. ONE CORNER OF THE TEXTILE IN 3 BLEW AWAY. PULLED THAT BACK IN AND PLACED MORE SANDBAGS ON IT. STARTED THE BOOTS BUT THEN IT RAINED SO WE WERE OFFSITE AT 3:00PM.



## Daily Installation Report

Date: 6/10/09  
Project: HAYES EVAP PIT POND 2  
Owner: WILLIAMS PRODUCTION  
Engineer:  
Contractor: MB CONSTRUCTION  
Installation Supervisor: ROGER BARNES  
Material: 60 MIL HDT, 80Z TEXTILE

Fusion Weld \_\_\_\_\_ Extrusion Weld  X

### DAILY SEAM STRENGTH TEST

Date of Test	Time of Test	Ambient Air Temp.	Unit Temp.	Pre-Heat Temp.	Unit Speed	Peel Value In/In/Out/In	Shear Value	Welding Tech.	Unit No.	Pass/Fail
6/10/09	6:56	52	500	400		110/	170	JL	1549	P
						100/	166			
						100/				
						/				
6/10/09	12:00	80	500	350		109/	146	JL	1549	P
						104/	150			
						106/				
						/				
						/				
						/				
						/				
						/				

### DAILY RECAP

Quantity Installed	Weather	Contract Labor Hours	Equipment Maintenance / Greasing
0	80&SUNNY & RAIN		T-300

Comments: ONSITE AT 6:00AM RAIN SO WE DID NOT PULL LINER. WAITED FOR 1/2 HR AND THE RAIN STOPPED SO WE WORKED ON THE BOOTS AND MOVED ALL LINER, SANDBAGS AND THE TRAILERS FROM LAYDOWN YARD TO A NEW ONE. DICK NEEDED ME, TOO, SO HE COULD MOVE DIRT. THEY STAGED OUT THE REST OF SANDBAGS IN POND#3. PICKED UP TRASH, ALL LINER IS 100%. WE ARE GOING TO START LINER IN POND#3 IN MORNING. WE DID HAVE RAIN OFF AND ON ALL DAY BUT SUBGRADE STILL LOOKS GOOD.





## Quality Control Air Testing POND#2

Project: HAYES EVAP PIT  
 Owner: WILLIAMS PRODUCTION  
 Engineer:  
 Contractor: MB CONSTRUCTION  
 Supervisor: ROGER BARNES  
 Material: 60 MIL HDT, 8OZ TEXTILE

Date of Test	Start Time	End Time	Seam No.	Seam Length	A C	A L	V B	S T	Pass/Fail	Welding Technician	Welder No.	Welder Speed	Welder Temp.
6/5/09	7:40	7:45	7-9	0-29	X				30-29	W TIE IN RG	1547	7.0	800
"	7:43	7:48	6-8	29-58	X				30-29	"	"	"	"
"	8:00	8:05	1-5	58-85	X				30-29	"	"	"	"
"	8:05	8:10	1-4	85-107	X				30-30	"	"	"	"
"	8:12	8:17	1-3	107-130	X				30-30	"	"	"	"
"	8:20	8:25	1-2	130-153	X				30-29	"	"	"	"
"	8:25	8:30	1-10	153-175	X				30-30	W TIE IN CONT. JH	1548	7.0	800
"	8:26	8:31	1-11	175-197	X				30-29	"	"	"	"
"	8:30	8:35	1-12	197-220	X				30-30	"	"	"	"
"	8:33	8:38	1-13	220-226	X				30-30	"	"	"	"
"	8:44	8:49	13-16	226-248	X				30-29	"	"	"	"
"	8:53	8:58	14-16	248-260	X				30-30	"	"	"	"
"	9:00	9:05	14-17	260-278	X				30-29	"	"	"	"
"	9:18	9:23	15-17	278-283	X				30-29	W TIE IN END JH	1548	7.0	800
"	8:43	8:48	1-16	52'	X				30-30	S WALL TO W TIE IN JH	1548	7.0	800
"	8:55	9:00	16-17	23'	X				30-29	" JH	"	"	"
"	7:55	8:00	1-8	56'	X				30-30	N WALL TO W TIE IN JH	"	"	"
"	7:40	7:45	8-9	27'	X				30-30	RG	0033	6.5	800
"	7:44	7:49	6-7	34'	X				30-30	WEST WALL	"	"	"
"	8:00	8:05	5-6	56'	X				30-30	" JH	1548	7.0	800
"	8:03	8:08	4-5	54'	X				30-30	W WALL CONT. RG	0033	6.5	800

AC=Air Channel Test AL=Air Lance Test VB=Vacuum Box Test ST=Spark Test





### Quality Control Air Testing

Project: HAYES EVAP PIT POND 2  
 Owner: WILLIAMS PRODUCTION  
 Engineer:  
 Contractor: MB CONSTRUCTION  
 Supervisor: ROGER BARNES  
 Material: 60 MIL HDT 80Z TEXTILE

Date of Test	Start Time	End Time	Seam No.	Seam Length	A C	A L	V B	S T	Pass/Fail	Welding Technician	Welder No.	Welder Speed	Welder Temp.
6/5/09	8:07	8:12	3-4	54'	X				30-29	W WALL CONT. JH	1548	7.0	800
"	8:20	8:25	2-3	53'	X				30-30	" RG	0033	6.5	800
"	8:21	8:26	2-10	52'	X				30-29	" JH	1548	7.0	800
"	8:26	8:31	10-11	53'	X				30-30	" RG	0033	7.0	800
"	8:30	8:35	11-12	54'	X				30-30	" JH	1548	7.0	800
"	8:35	8:40	12-13	54'	X				30-30	" RG	0033	6.5	800
"	8:53	8:58	13-14	37	X				30-29	" JH	1548	7.0	800
6/5/09	9:10	9:15	14-15	10'	X				30-30	W WALL END JH	"	"	"
"	9:37	9:43	1-18	47'	X				30-29	FLOOR JH	1548	7.0	800
"	9:25	9:30	1-18	47-240	X				30-30	"	"	"	"
"	"	"	18-19	284'	X				30-29	FLOOR CONT. RG	1547	7.0	800
"	9:40	9:45	19-20	138'	X				30-30	" JH	1548	7.0	800
"	"	"	19-21	149'	X				30-30	JH	"	"	"
"	"	"	20-21	23'	X				30-29	CROSS JH	"	"	"
"	9:53	9:58	20-22	138'	X				30-30	FLOOR JH	"	"	"
"	"	"	21-23	149'	X				30-30	"	"	"	"
"	10:30	10:35	22-24	232	X				30-30	" RG	1547	8.0	800
"	10:25	10:30	23-24	56'	X				30-30	"	"	"	"
"	10:00	10:05	22-23	23'	X				30-29	CROSS RG	1547	"	"
"	10:00	10:05	21-23	56'	X				30-30	FLOOR JH	1548	7.0	800
6/6/09	1:20	1:25	24-25	64'	X				30-29	FLOOR CONT. RG	1547	7.5	800

AC=Air Channel Test AL=Air Lance Test VB=Vacuum Box Test ST=Spark Test





### Quality Control Air Testing

Project: HAYES EVAP PIT POND 2  
 Owner: WILLIAMS PRODUCTION  
 Engineer:  
 Contractor: MB CONSTRUCTION  
 Supervisor: ROGER BARNES  
 Material: 60 MIL HDT 8OZ TEXTILE

Date of Test	Start Time	End Time	Seam No.	Seam Length	A C	A L	V B	S T	Pass/Fail	Welding Technician	Welder No.	Welder Speed	Welder Temp.
6/6/09	1:15	1:20	24-26	204'	X				30-29	FLOOR RG	1547	7.5	800
"	"	"	25-26	23'	X				30-29	CROSS RG	"	"	"
"	1:45	1:50	27-25	64'	X				32-31	FLOOR JH	1662	6.5	800
"	1:27	1:32	26-28	171'	X				30-28	"	"	"	"
"	1:50	1:55	26-28	75'	X				31-29	"	"	"	"
"	"	"	27-28	23'	X				32-31	CROSS RG	1547	6.5	800
"	1:57	2:03	28-29	75'	X				32-31	FLOOR CONT. RG	"	"	"
6/6/09	1:53	1:58	27-29	18'	X				31-30	"	"	"	"
6/9/09	7:15	7:20	29-30	57'	X				31-30	JH	1662	7.5	800
"	7:27	7:32	29-31	235'	X				33-32	FLOOR JH	"	"	"
"	8:05	8:10	30-31	23'	X				31-30	CROSS RG	1547	7.0	800
"	7:34	7:39	31-33	109'	X				32-31	FLOOR RG	"	"	"
"	7:45	7:50	30-32	185'	X				32-31	"	"	"	"
"	"	"	32-33	23'	X				33-32	FLOOR ENDCROSS RG	"	"	"
"	8:33	8:38	48-51	0-5	X				33-32	E TIE IN JH	1662	7.5	800
"	8:55	9:00	47-50	5-36	X				33-31	"	"	"	"
"	9:03	9:08	46-49	36-66	X				33-33	"	"	"	"
"	9:20	9:25	32-46	66-72	X				31-30	"	"	"	"
"	9:15	9:20	32-44	72-93	X				32-31	"	"	"	"
"	9:29	9:34	32-44	93-115	X				31-31	"	"	"	"
6/9/09	9:31	9:36	32-43	115-138	X				33-33	E TIE IN CONT. JH	1662	7.5	800

AC=Air Channel Test AL=Air Lance Test VB=Vacuum Box Test ST=Spark Test





## Quality Control Air Testing

Project: HAYES EVAP PIT POND 2  
 Owner: WILLIAMS PRODUCTION  
 Engineer:  
 Contractor: MB CONSTRUCTION  
 Supervisor: ROGER BARNES  
 Material: 60 MIL HD 8OZ TEXTILE

Date of Test	Start Time	End Time	Seam No.	Seam Length	A C	A L	V B	S T	Pass/Fail	Welding Technician	Welder No.	Welder Speed	Welder Temp.
6/9/09	9:45	9:50	32-34	138-160	X				33-32	E TIE IN CONT. RG	1547	7.0	800
"	9:47	9:53	32-35	160-183	X				33-32	"	"	"	"
"	9:58	10:03	33-36	183-206	X				32-31	"	"	"	"
"	10:00	10:05	33-37	206-228	X				31-31	"	"	"	"
"	10:10	10:15	33-38	228-236	X				32-32	"	"	"	"
"	10:11	10:16	31-30	236-253	X				31-30	"	"	"	"
"	10:26	10:31	39-41	253-274	X				31-31	"	"	"	"
"	10:25	10:30	39-42	274-284	X				31-30	"	"	"	"
"	10:35	10:40	40-42	284-289	X				32-30	E TIE IN END RG	1547	7.0	800
"	10:11	10:16	33-41	48'	X				32-32	N WALL TO E TIE IN JH	1662	6.7	800
"	10:25	10:30	41-42	15'	X				31-31	" RG	1547	7.0	800
"	9:30	9:35	32-49	60'	X				30-30	S WALL TO E TIE IN RG	1547	7.0	800
"	8:51	8:56	49-50	36'	X				32-31	" JH	1662	6.7	800
"	8:33	8:38	50-51	5'	X				32-30	" JH	"	"	"
"	8:38	8:43	47-48	7'	X				32-31	EAST WALL RG	1547	7.0	800
"	9:03	9:08	46-47	39'	X				33-32	" JH	1662	6.4	800
"	9:12	9:17	45-46	58'	X				33-32	" RG	1547	7.0	800
"	9:29	9:34	44-45	58'	X				33-32	" JH	1662	6.4	800
"	9:30	9:35	43-44	57'	X				32-31	" RG	1547	6.7	800
"	9:44	9:51	34-43	55'	X				32-30	" JH	1662	6.7	800
6/9/09	9:47	9:53	34-35	53'	X				31-30	EAST WALL CONT. JH	"	"	"

AC=Air Channel Test AL=Air Lance Test VB=Vacuum Box Test ST=Spark Test





## Quality Control Air Testing

Project: HAYES EVAP PIT POND 2  
Owner: WILLIAMS PRODUCTION  
Engineer:  
Contractor: MB CONSTRUCTION  
Supervisor: ROGER BARNES  
Material: 60 MIL HDT 8OZ TEXTILE

[illegible]





**Field Seam Destructive Test**  
**POND#2**

Project: HAYES EVAP PIT  
 Owner: WILLIAMS PRODUCTION  
 Engineer:  
 Contractor: MB CONSTRUCTION  
 Supervisor: ROGER BARNES  
 Material: 60 MIL HDT, 8OZ TEXTILE

Destruct No.	Date of Test	Welder No.	Welder Temp.	Welder Speed	Seam No.	Time of Test	Welder's Name	Peel Value Inside/Outside	Sheer Value	(Pass/Fail)
1	6/5/09	1548	800	7.0	1-18	1:50	JH	121/130	145	P
								111/104	135	
								120/118		
2	"	1547	800	8.0	19-20	2:05	RG	110/115	149	P
								113/106	143	
								116/119		
3	"	"	"	"	23-24	2:17	RG	114/133	142	P
								104/126	144	
								117/124		
4	6/15/09	1662	800	6.7	29-31	2:00	JH	128/109	143	P
								127/109	142	
								117/113		
5	6/15/09	1547	800	7.0	31-33	2:15	RG	129/129	141	P
								112/111	138	
								106/108		
6	6/15/09	1547	800	7.0	45-46	2:30	RG	110/107	136	P
								112/111	140	
								112/128		



**POND#2**  
**Panel Placement Log**

**Project:** HAYES EVAP PIT  
**Owner:** WILLIAMS PRODUCTION  
**Engineer:**  
**Contractor:** MB CONSTRUCTION  
**Supervisor:** ROGER BARNES  
**Material:** 60 MIL HDT, 80Z TEXTILE

Panel No.	Roll Number	Date	Material Type	Width	Length
1	0112	6/2/09	60 MIL HD	23	283'
2	"	"	"	"	59'
3	"	"	"	"	59'
4	0107	"	"	"	61'
5	"	"	"	"	60'
6	"	"	"	"	62'
7	"	"	"	"	36'
8	0105	"	"	"	61'
9	"	"	"	"	36'
10	"	"	"	"	60'
11	"	"	"	"	58'
12	"	"	"	"	58'
13	"	"	"	"	56'
14	"	"	"	"	38'
P14-15	"	"	"	"	17'
16	0117	"	"	"	57'
17	"	"	"	"	30'
18	"	"	"	"	286'
19	9751	"	"	"	284'
20	"	"	"	"	138'
21	9752	"	"	"	149'
22	"	"	"	"	232'
23	0108	"	"	"	56'
24	"	"	"	"	286'
25	0108	6/2/09	"	"	64'



### Panel Placement Log

Project: HAYES EVAP PIT POND 2  
Owner: WILLIAMS PRODUCTION  
Engineer:  
Contractor: MB CONSTRUCTION  
Supervisor: ROGER BARNES  
Material: 60 MIL HDT, 8OZ TEXTILE

Panel No.	Roll Number	Date	Material Type	Width	Length
26	0106	6/2/09	60 MIL HD	23'	204'
27	0106	6/6/09	"	"	181'
28	0122	"	"	"	75'
29	"	"	"	"	288'
30	"	"	"	"	57'
31	9753	6/7/09	"	"	235'
32	"	"	"	"	185'
33	0101	"	"	"	109'
34	"	"	"	"	60'
35	"	"	"	"	58'
36	"	"	"	"	57'
37	"	"	"	"	54'
38	"	"	"	"	52'
39	9749	"	"	"	39'
*P3940	"	"	"	"	12'
41	"	"	"	"	58'
*P4142	"	"	"	"	27'
43	"	6/8/09	"	"	64'
44	"	"	"	"	65'
45	"	"	"	"	64'
46	"	"	"	"	67'
47	9747	"	"	"	44'
*P4748	"	"	"	"	17'
49	"	"	"	"	64'
50	9747	6/8/09	60 MIL HD	23'	42'





### Panel Placement Log

**Project:** HAYES EVAP PIT  
**Owner:** WILLIAMS PRODUCTION  
**Engineer:**  
**Contractor:** MB CONSTRUCCION  
**Supervisor:** ROGER BARNES  
**Material:** 60 MIL HDT, 8OZ TEXTILE

[illegible]

Pond #2  
Hays Evap Pit

Pond #2

Hays Evap Pit														
P-1	P-2	P-3	P-4	P-5	P-6	P-7	P-8	P-9	P-10	P-11	P-12	P-13	P-14	P-15
P-16	P-17	P-18	P-19	P-20	P-21	P-22	P-23	P-24	P-25	P-26	P-27	P-28	P-29	P-30
P-31	P-32	P-33	P-34	P-35	P-36	P-37	P-38	P-39	P-40	P-41	P-42	P-43	P-44	P-45
P-46	P-47	P-48	P-49	P-50	P-51	P-52	P-53	P-54	P-55	P-56	P-57	P-58	P-59	P-60



### Sub grade Acceptance

Date: 6/17/09

Project: HAYES EVAP PIT  
Owner: WILLIAMS PRODUCTION  
Engineer:  
Contractor: MB CONSTRUCTION  
Installation Supervisor: ROGER BARNES  
Material: 60 MIL HDT, 8 OZ TEXTILE

Is surface acceptable for placement of geomembranes? Yes ☒ No ☐

Comments \_\_\_\_\_

Date: 6/17/09

Accepted By Representative of Owner/Owner (Signature) \_\_\_\_\_

I certify that I am a representative with the authority to provide this acceptance and recognize that if this is not a true statement that I will be held personally responsible for the integrity of the inspection.

Print Name/Title: RICHARD TENINTY SUPERVISOR

Company: MB

Witnessed By Representative of CLC (Signature) \_\_\_\_\_

Print Name/Title: ROGER BARNES Super

**This document only applies to the acceptability of the surface conditions for the installation of the geosynthetic products. Colorado Lining Construction (CLC) does not accept responsibility for anchor trench elevation or design, elevation points for construction, sub-grade compaction, moisture content of neither the sub-grade nor the surface maintenance during deployment. The structural integrity of the sub-grade and maintenance of these conditions are the responsibility of the owner, engineer or contractor. Furthermore, any incidental damage to the liner or seams (e.g. groundwater, gases, cover soil placement and sub-grade movement) during or after the installation is not covered by any warranty expressed or implied and the design, engineering and construction are the responsibility of the owner, engineer and/or contractor.**

CORPORATE OFFICE

1062 Singing Hills Road Parker, Colorado 80138 800 524 8672 303 841 2022 Fax 303 841 5780 www.coloradolining.com



### Geomembrane Installation Approval

Project: HAYES EVAP PIT  
Owner: WILLIAMS PRODUCTION  
Engineer:  
Contractor: MB CONSTRUCTION  
Supervisor: ROGER BARNES  
Material: 60 MIL HDT, 8 OZ TEXTILE

The Geomembrane on this project has been installed, inspected and tested in accordance with Industry Standards and Manufacturer recommendations.

Date:

6/17/09

Accepted By:  
(Signature)

Richard Teninty

Print Name/Title:

RICHARD TENINTY

Company:

MB

Comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**All warranties to begin on the date of completion.  
Warranties to be issued upon receipt of final payment**

HIS MEMORANDUM

PICK UP @ PLANT

is an acknowledgment that a Bill of Lading has been issued and is not the Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

B/L NO. 001472

NAME OF CARRIER CARRIER'S NO. DATE 5/18/2009

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of issue of this Bill of Lading, the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below which said carrier (the word carrier, if used, shall mean any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to the consignee on the route to said destination. It is mutually agreed as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or a portion of said property, that every service to be performed hereunder, shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Uniform Freight Classifications in effect on the date of issue of this Bill of Lading, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment. The shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, set forth in the classification or tariff, and agrees to the transportation of the property, and the said terms and conditions hereby agreed to by the shipper and accepted for himself and his assigns.

FROM: SHIPPER (ORIGIN) AGRU/AMERICA, INC. 2000 East Newlands Drive Fernley, NV 89408 (775)835-8282 TO: CONSIGNEE DESTINATION: PARACHUTE, CO Resale Certificate on File USA DAN BOYLE-303-841-2022 STREET DESTINATION ZIP

DELIVERING CARRIER		ROUTE		VEHICLE NUMBER	
NO. PACKAGES	+ HM	KIND OF PACKAGE, DESCRIPTION OF ARTICLES SPECIAL MARKS AND EXCEPTIONS	*WEIGHT (SUBJECT TO CORR.)	CLASS OR RATE	✓ CHARGES (FOR CARRIER USE ON
154,317		7 METER SMTH LINER HD 60MIL BLK	46,367		
		Item Key	Roll Number	Quantity	
		-----	-----	-----	
		L-HD-SMTH-060-7M	920109-09	9,645	
		L-HD-SMTH-060-7M	920110-09	9,645	
		L-HD-SMTH-060-7M	920111-09	9,645	
		L-HD-SMTH-060-7M	920112-09	9,645	
		L-HD-SMTH-060-7M	920113-09	9,645	
		L-HD-SMTH-060-7M	920114-09	9,645	
		L-HD-SMTH-060-7M	920115-09	9,645	
		L-HD-SMTH-060-7M	920116-09	9,645	
		L-HD-SMTH-060-7M	920117-09	9,645	
		L-HD-SMTH-060-7M	920118-09	9,645	
		L-HD-SMTH-060-7M	920119-09	9,645	
		L-HD-SMTH-060-7M	920120-09	9,645	
		L-HD-SMTH-060-7M	920121-09	9,645	
		L-HD-SMTH-060-7M	920122-09	9,645	
		L-HD-SMTH-060-7M	920123-09	9,645	
		L-HD-SMTH-060-7M	920224-09	9,645	
		Total Weight: 46,367 LB			
		Total Units: <u>16 rolls</u>			
		Order No.: 12123 Order Date: 05/06/09 Request Date: 05/06/09			
		Location: NV P.O. No.: 24875			

SHIPPER'S IMPRINT: AGRU/AMERICA, INC. 2000 East Newlands Drive Fernley, NV 89408 (775)835-8282 C.O.D. Amt \$ C.O.D. FEE Prepaid Collect \$ TOTAL CHARGES \$ Freight charges are PREPAID unless marked collect. Check box if charges are Col



# HIS MEMORANDUM

PICK UP @ PLANT

is an acknowledgment that a Bill of Lading has been issued and is not the Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or records.

B/L NO.

001473

NAME OF CARRIER

CARRIER'S NO.

DATE

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of issue of this Bill of Lading, a property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below which said carrier (the word carrier is used throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to the consignee on the route to said destination. It is mutually agreed as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or a portion of said property, that every service to be performed hereunder, shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) In Uniform Freight Classifications in effect on the date of issue of this Bill of Lading, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment. The carrier hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, set forth in the classification or tariff, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

FROM:  
SHIPPER  
(ORIGIN)

AGRU/AMERICA, INC.  
2000 East Newlands Drive  
Fernley, NV 89408  
(775)835-8282

TO:  
CONSIGNEE

COLORADO LINING COMPANY  
CUSTOMER TO PICK UP AT PLANT  
DESTINATION: PARACHUTE, CO  
Resale Certificate on File  
USA  
DAN BOYLE-303-841-2022

STREET

DESTINATION

ZIP



EMERGENCY RESPONSE PHONE NO.

DELIVERING  
CARRIER

ROUTE

VEHICLE  
NUMBER

NO. PACKAGES	+ HM	KIND OF PACKAGE, DESCRIPTION OF ARTICLES SPECIAL MARKS AND EXCEPTIONS	*WEIGHT (SUBJECT TO CORR.)	CLASS OR RATE	✓	CHARGES (FOR CARRIER USE ON																																																			
154,317 264		7 METER SMTH LINER HD 60MIL BLK WELD ROD MFG BLACK HDPE 5MM	46,367 264																																																						
<table><tr><th>Item Key</th><th>Roll Number</th><th>Quantity</th></tr><tr><td>L-HD-SMTH-060-7M</td><td>919747-09</td><td>9,645</td></tr><tr><td>L-HD-SMTH-060-7M</td><td>919748-09</td><td>9,645</td></tr><tr><td>L-HD-SMTH-060-7M</td><td>919749-09</td><td>9,645</td></tr><tr><td>L-HD-SMTH-060-7M</td><td>919750-09</td><td>9,645</td></tr><tr><td>L-HD-SMTH-060-7M</td><td>919751-09</td><td>9,645</td></tr><tr><td>L-HD-SMTH-060-7M</td><td>919752-09</td><td>9,645</td></tr><tr><td>L-HD-SMTH-060-7M</td><td>919753-09</td><td>9,645</td></tr><tr><td>L-HD-SMTH-060-7M</td><td>919754-09</td><td>9,645</td></tr><tr><td>L-HD-SMTH-060-7M</td><td>920101-09</td><td>9,645</td></tr><tr><td>L-HD-SMTH-060-7M</td><td>920102-09</td><td>9,645</td></tr><tr><td>L-HD-SMTH-060-7M</td><td>920103-09</td><td>9,645</td></tr><tr><td>L-HD-SMTH-060-7M</td><td>920104-09</td><td>9,645</td></tr><tr><td>L-HD-SMTH-060-7M</td><td>920105-09</td><td>9,645</td></tr><tr><td>L-HD-SMTH-060-7M</td><td>920106-09</td><td>9,645</td></tr><tr><td>L-HD-SMTH-060-7M</td><td>920107-09</td><td>9,645</td></tr><tr><td>L-HD-SMTH-060-7M</td><td>920108-09</td><td>9,645</td></tr></table>							Item Key	Roll Number	Quantity	L-HD-SMTH-060-7M	919747-09	9,645	L-HD-SMTH-060-7M	919748-09	9,645	L-HD-SMTH-060-7M	919749-09	9,645	L-HD-SMTH-060-7M	919750-09	9,645	L-HD-SMTH-060-7M	919751-09	9,645	L-HD-SMTH-060-7M	919752-09	9,645	L-HD-SMTH-060-7M	919753-09	9,645	L-HD-SMTH-060-7M	919754-09	9,645	L-HD-SMTH-060-7M	920101-09	9,645	L-HD-SMTH-060-7M	920102-09	9,645	L-HD-SMTH-060-7M	920103-09	9,645	L-HD-SMTH-060-7M	920104-09	9,645	L-HD-SMTH-060-7M	920105-09	9,645	L-HD-SMTH-060-7M	920106-09	9,645	L-HD-SMTH-060-7M	920107-09	9,645	L-HD-SMTH-060-7M	920108-09	9,645
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Total Weight: 46,631 LB Total Units: 160000/125000 Order No.: 12123 Order Date: 05/06/09 Request Date: 05/06/09 Location: NV P.O. No.: 24875																																																									

EMIT C.O.D. TO:



AGRU/AMERICA, INC.  
2000 East Newlands Drive  
Fernley, NV 89408  
(775)835-8282

C.O.D. Amt \$

C.O.D. FEE

☐ Prepaid  
☒ Collect \$

If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state the "carrier's or shipper's weight".

NOTE: Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.  
The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding \$ \_\_\_\_\_ per \_\_\_\_\_

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:  
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

TOTAL  
CHARGES \$

Freight charges are PREPAID unless marked collect. ☐ Check box if charges are Co

Shipper's imprint in lieu of stamp; not a part of bill of lading approved by the Interstate Commerce Commission.

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation, according to the applicable regulations of the Department of Transportation.

## SOIL TEST

# Lambert and Associates

CONSULTING GEOTECHNICAL ENGINEERS AND MATERIAL TESTING

## DAILY FIELD REPORT - FIELD DENSITY TESTS

Date: <i>Thursday, May/28/09</i>	Arrive Time: <i>11:45 AM</i>
	Depart Time:
Project Name: <i>Evaporation Pond</i>	Weather: <i>Overcast</i>
Project Number: <i>G09032MT</i>	Temp:
Client: <i>MB Construction</i>	Client Representative:
General Contractor:	Supervisor:
Specialty Contractor: <i>MB Construction</i>	Specialty Superintendent or Foreman: <i>Dick Teninty</i>
Source of Fill Material:	Plans and Specs: <i>N/A</i>
	Dated:
Contractor's Equipment Used: <i>Dozers, scrapers, backhoe, water truck and vibratory smooth drum compactor</i>	
Lambert and Associates Equipment Used - Manufacturer: <i>CPN</i> Serial Number or Unit Number: <i>18</i>	
Test Results were Verbally Given On-Site to: <i>Dick Teninty</i>	
Expected Conditions Observed: <i>Yes</i>	
Unexpected Conditions Observed: <i>No</i>	
Unusual Conditions Observed: <i>No</i>	
If yes, who was contacted?	
Follow-up from Prior Visit:	Retests Performed: <i>Yes</i>
Concerns for Next Visit: <i>None</i>	Retests Needed:
Other personnel contacted on-site: name/firm	
Notes: <i>I performed nuclear field density tests, as requested by Dick Teninty with MB Construction, of material being placed for the construction of Evaporation Ponds Numbers One (1), Two (2) and Three (3). Please refer to the test results sheets for approximate test location and test results. The test results indicate only the relative compaction and soil moisture content of the material tested at the elevation and location tested at the time of our site visit.</i>	
Lambert and Associates Technician: <i>Hayes</i>	

## RELATIVE COMPACTION TEST RESULTS

PROJECT: Evaporation Pond

PROJECT NO: G09032MT

DATE: Thursday, May/28/09

SITE LOCATION: Parachute

ENGINEERING TECHNICIAN: Hayes

CLIENT: MB Construction

NUCLEAR GAUGE USED: 18

TEST NO	TEST LOCATION	DEPTH OR ELEVATION	PROBE DEPTH (IN)	LABORATORY PROCTOR DENSITY (PCF)	OPTIMUM MOISTURE CONTENT (%)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	RELATIVE COMPACTION (%)	SOIL TYPE
	<i>Approximate Test Locations</i>								
	<i>Pond #1</i>								
2	Test #1 May/28/09 sketch	At Grade	8	121.5	12.0	113.5	12.9	93	Clay, Sandy, Gravelly, Brown
3	Test #2 May/28/09 sketch	"	8	121.5	12.0	117.0	14.0	96	" "
4	Test #3 May/28/09 sketch	"	8	118.0	13.0	104.9	14.1	89	Clay, Sandy, Brown
5	Retest of #4, this date	"	8	118.0	13.0	105.1	14.0	89	" "
	<i>Pond #2</i>								
6	Test #1 May/28/09 sketch	"	8	121.5	12.0	113.2	16.0	93	Clay, Sandy, Gravelly, Brown
7	Test #2 May/28/09 sketch	"	8	120.0	12.0	108.6	17.5	91	Clay, Sandy, Brown
8	Test #3 May/28/09 sketch	"	8	121.5	12.0	111.2	12.3	92	Clay, Sandy, Gravelly, Brown
	<i>Pond #3</i>								
9	Test #1 May/28/09 sketch	"	8	120.0	12.0	108.2	15.9	90	Clay, Sandy, Brown
10	Test #2 May/28/09 sketch	"	8	120.0	12.0	116.7	11.7	97	" "

REMARKS: The test results indicate only the density and moisture content for the location and elevation tested only.

**Lambert and Associates**

PROJECT NUMBER: G09032MT

# Lambert and Associates

CONSULTING GEOTECHNICAL ENGINEERS AND MATERIAL TESTING

**Client:** MB Construction

**Date Received:** May/8/09

**Project:** Evaporation Pond

**Date Tested:** May/13/09

**Project Number:** G09032MT

**Sample Number:** 1465

**Location:** Parachute, CO

**Sample Source:** MB Sample Number 3

**Sample Description:** Clay, Sand, Gravelly, Brown

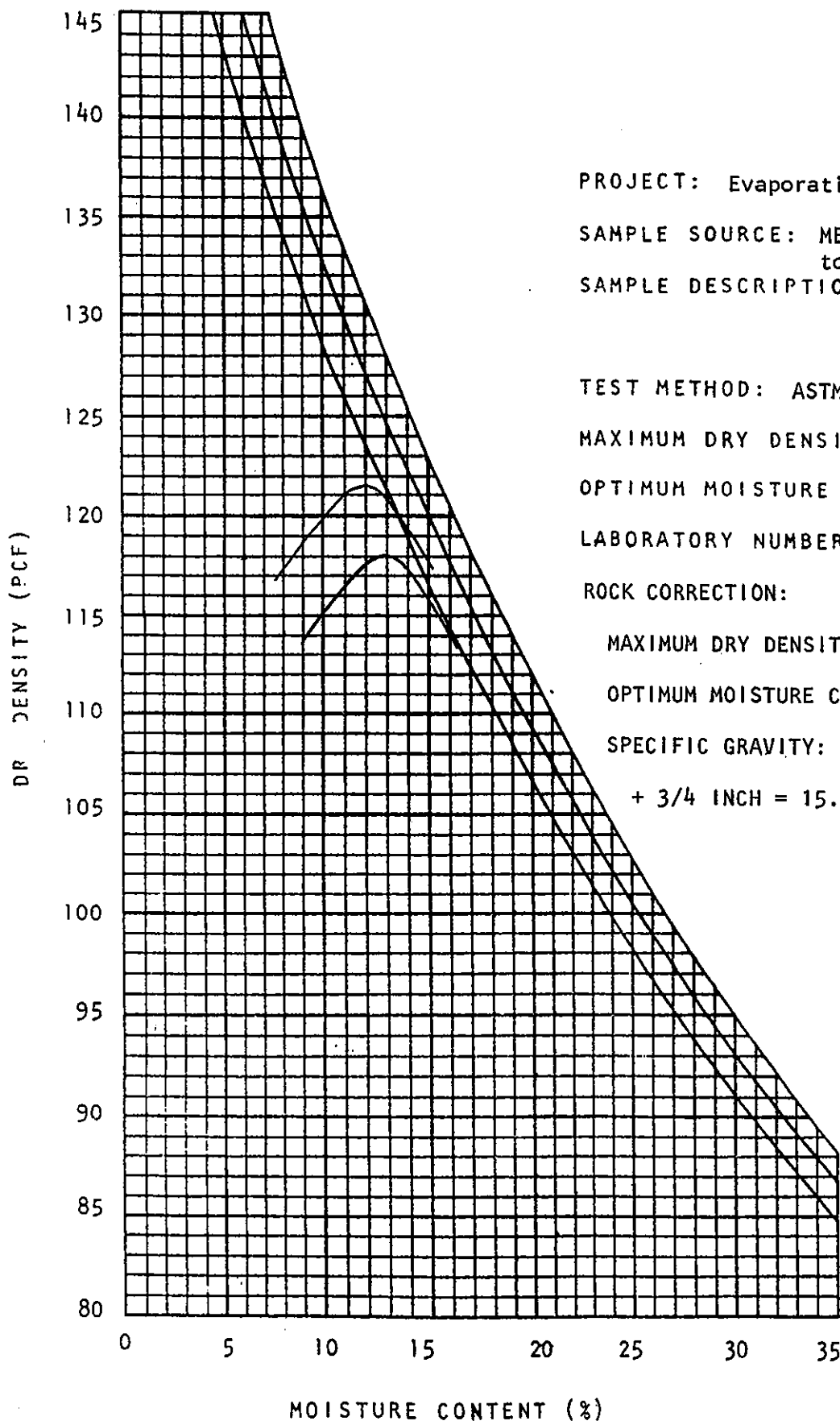
## CONSTANT HEAD PERMEABILITY TEST

Initial Moisture Content: 13.5%

Dry Unit Weight: 106.2 pcf

Permeability:  $4.2 \times 10^{-8}$  cm/sec





PROJECT: Evaporation Pond

SAMPLE SOURCE: MB Sample Number 4, Delivered  
to Grand Junction Office

SAMPLE DESCRIPTION: Clay, Sand, Gravelly,  
Brown

TEST METHOD: ASTM D1557C

MAXIMUM DRY DENSITY: 118.0 pcf

OPTIMUM MOISTURE CONTENT: 13.0%

LABORATORY NUMBER: 1466

ROCK CORRECTION:

MAXIMUM DRY DENSITY: 121.5 pcf

OPTIMUM MOISTURE CONTENT: 12.0%

SPECIFIC GRAVITY: 2.302

+ 3/4 INCH = 15.4% OF TOTAL WEIGHT

2.8  
2.7 Zero Air Voids for  
2.6 Specific Gravity

**Lambert and Associates**

Project No.: G09032MT

Date: May/8/2009

Flowe:

# **Lambert and Associates**

CONSULTING GEOTECHNICAL ENGINEERS AND MATERIAL TESTING

**Client:** MB Construction

**Date Received:** May/8/09

**Project:** Evaporation Pond

**Date Tested:** May/14/09

**Project Number:** G09032MT

**Sample Number:** 1466

**Location:** Parachute, CO

**Sample Source:** MB Sample Number 4,  
Delivered to Grand Junction Office

**Sample Description:** Clay, Sand, Gravelly, Brown

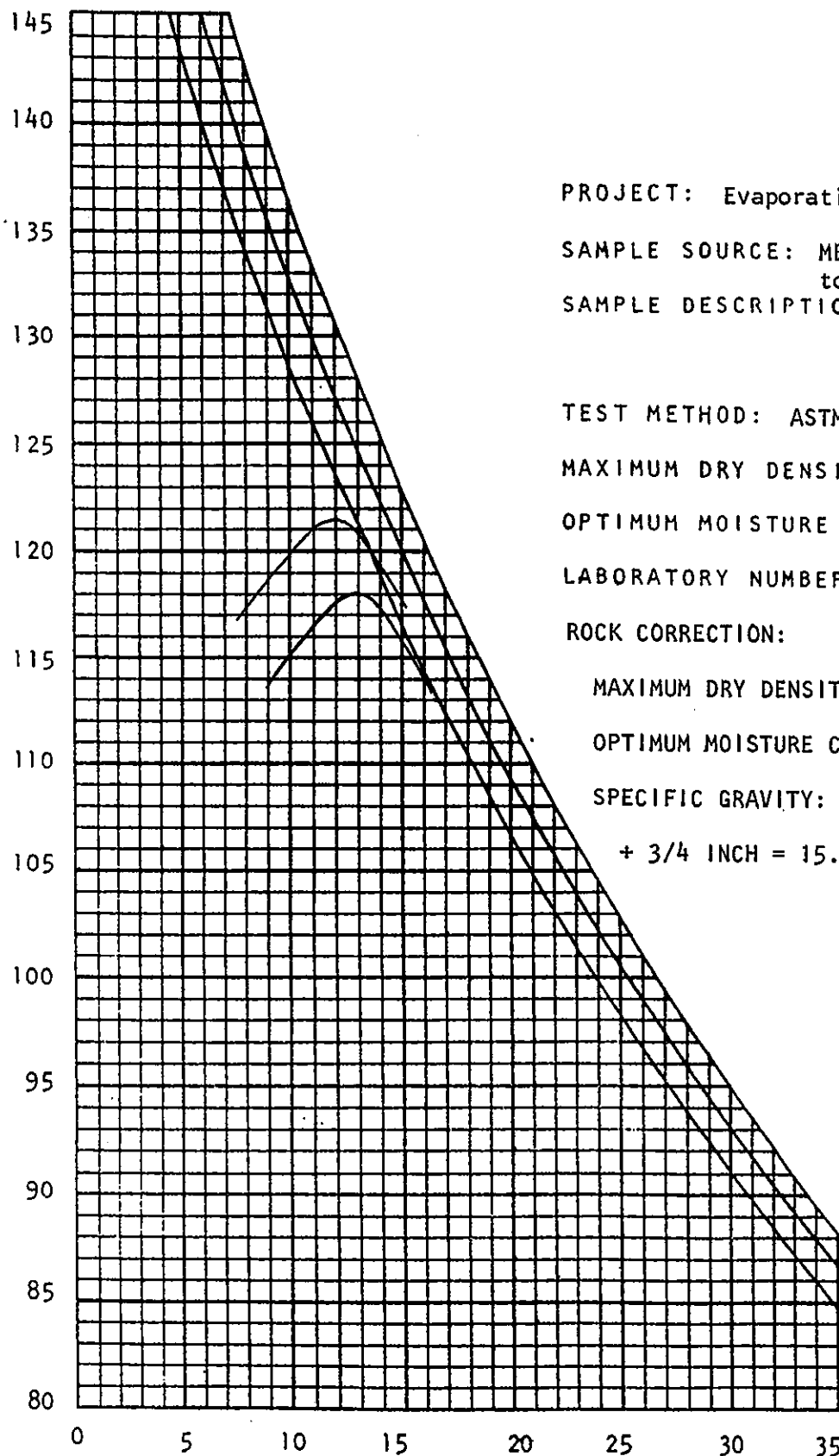
## **CONSTANT HEAD PERMEABILITY TEST**

Initial Moisture Content: 14.6%

Dry Unit Weight: 106.2 pcf

Permeability:  $1.8 \times 10^{-7}$  cm/sec

DRY DENSITY (PCF)



PROJECT: Evaporation Pond

SAMPLE SOURCE: MB Sample Number 4, Delivered  
to Grand Junction Office

SAMPLE DESCRIPTION: Clay, Sand, Gravelly,  
Brown

TEST METHOD: ASTM D1557C

MAXIMUM DRY DENSITY: 118.0 pcf

OPTIMUM MOISTURE CONTENT: 13.0%

LABORATORY NUMBER: 1466

ROCK CORRECTION:

MAXIMUM DRY DENSITY: 121.5 pcf

OPTIMUM MOISTURE CONTENT: 12.0%

SPECIFIC GRAVITY: 2.302

+ 3/4 INCH = 15.4% OF TOTAL WEIGHT

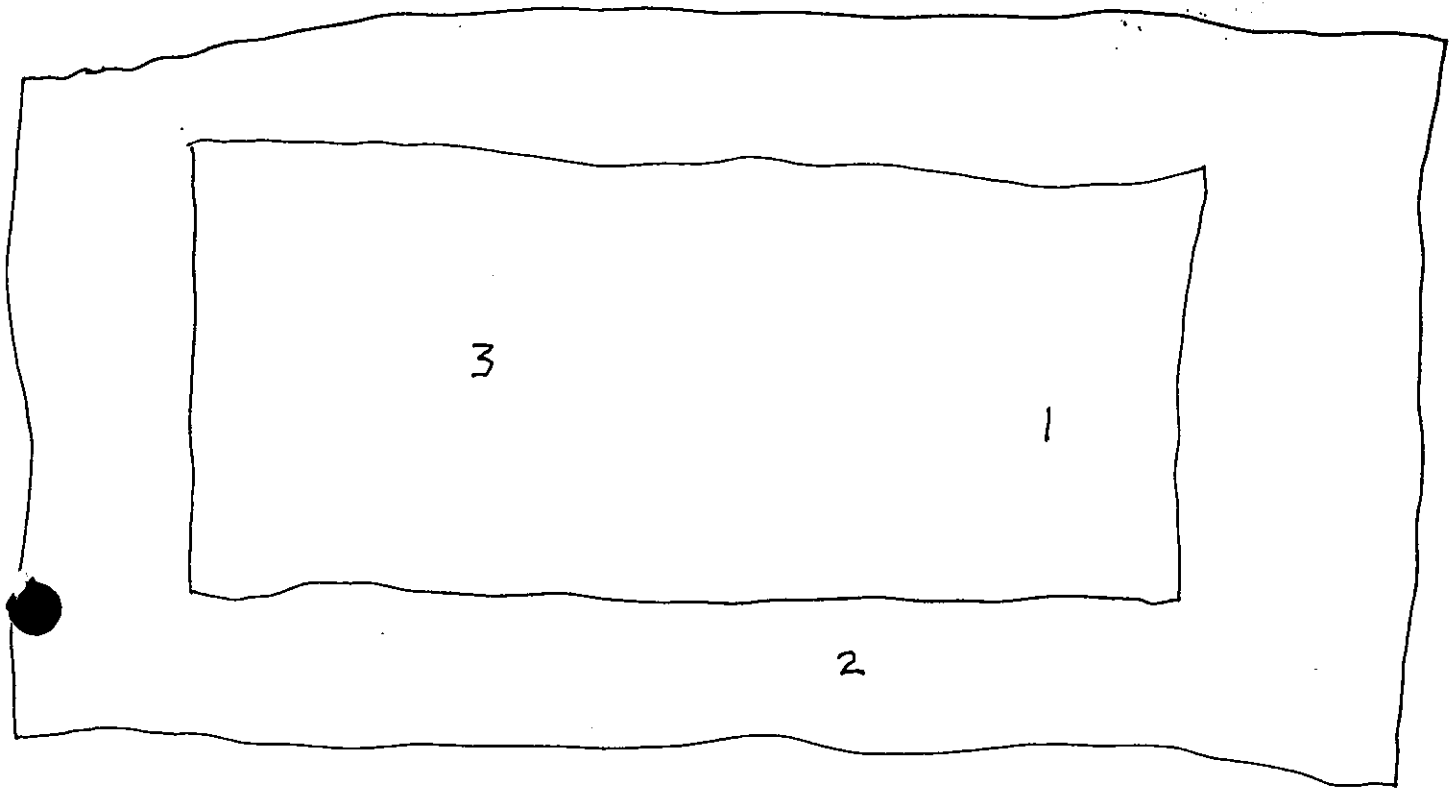
2.8  
2.7 Zero Air Voids for  
2.6 Specific Gravity

**Lambert and Associates**

Project No.: G09032MT  
Date: May/8/2009  
Figure:



Parachute Evaporation Pond #2  
609032m<sup>2</sup>  
5-28-09



No Scale







# COGCC GIS Online

