

10 August 2009

Mr. Brian Rakvica
Nevada Division of Environmental Protection
2030 E. Flamingo Ave
Suite 230
Las Vegas, Nevada 89119

**Subject: Basic Remediation Company – Corrective Action Management Unit, Phase IV
CQA Report
Response to Nevada Division of Environmental Protection Comments dated 7
August 2009
Geosyntec Project: SC0313**

Dear Mr. Rakvica,

On behalf of Basic Remediation Company (BRC), Geosyntec Consultants, Inc (Geosyntec) is pleased to provide this letter in response to the comments presented by the Nevada Division of Environmental Protection (NDEP) in their 7 August 2009 electronic mail on the BRC Corrective Action Management Unit (CAMU) Phase IV Construction Quality Assurance (CQA) Report.

For ease of review, comments provided by NDEP are provided in italics below with Geosyntec's responses following.

1. *Appendix C, Section C-3, Sand Cone Test Results:*
 - a. *Description: IV Subgrade, we were unable to locate the corresponding test location in the field nuclear moisture/density test log. Please clarify.*

The test corresponding to the IV subgrade was not included on the nuclear density because it was only used as a comparison for the sand cone test. The test was been added as test 1-011. The revised nuclear density and sand cone logs are included as Attachments A and B, respectively.

- b. *Please clarify the difference of the field moisture content and the nuclear gauge determined moisture content results with the Proctor test data optimum moisture content in regards to the specifications.*

The field moisture content is the nuclear gauge determined moisture.

Mr. Brian Rakvica
10 August 2009
Page 2

2. *Appendix E, Section E-5, Production Seam Logs: 7/3/2009, 8:35, the corresponding trial weld cannot be located in the construction quality control (CQC) and CQA documentation for the parameters indicated in the log. Please clarify.*

The error is on the log. The speed should be 5.5 not 5.0; the revised log is included as Attachment C.

3. *General Comment: the welder operators have been performing multiple trial welds at the same time to verify a range of speeds that are used for a respective installation period. Typically, trial welds are performed with changes to the welder operational settings, considering that these changes are generally concurrent with changing ambient and material temperatures. Please clarify.*

The different speeds are used for the different geomembrane material welding combinations, i.e. smooth\smooth (S\S), smooth\texture (S\T), and texture\texture (T\T).

4. *Appendix E, Section E-7, Destructive Test Logs and Laboratory Test Results: sample numbers 1-021 and 1-041: we were unable to locate the outside peel test results for these samples. Please clarify.*

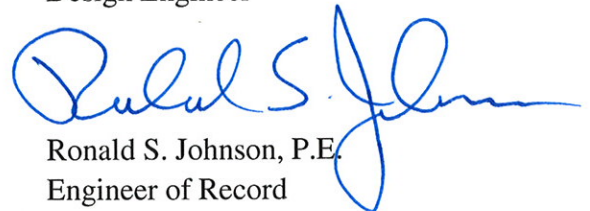
The destructive samples are extrusion welded.

If you have any questions or require additional information, please contact us at (858) 674-6559.

Sincerely,



Rebecca B. Flynn
Design Engineer



Ronald S. Johnson, P.E.
Engineer of Record

Mr. Brian Rakvica
10 August 2009
Page 3

Attachments: A – Revised Nuclear Density Log
B – Revised Sand Cone Test Log
C – Revised Production Seam Log

Copies to: Lee Farris, BRC
Ranajit Sahu, BRC
Rob Valceschini, ASW

Attachment A

Field Nuclear Moisture/Density Test Log

Project: Phase IV Location: Henderson, NV Description: Geomembrane Liner System								ProjNo: SC0313 TaskNo: 09/03							
Proctor Type: ASTM D 1557		Percent Compaction: 90		Lift Thickness (Compacted - Loose):		12 - 12		Moisture Range:		-4 - 4					
Soil Type: 1 General Fill Series: 1 Subgrade				Gauge Type: 3440 Gauge Serial No: 28051				Correction Factor: 0							

ID	Location	Date	Probe Depth	Lift No.	Lab			Field						QA ID	Retest No	Retest Result
					Sample No	OMC (%)	Max Dry Unit Wt (PCF)	Field MC	Correct MC	Wet Unit Wt (PCF)	Dry Unit Wt (PCF)	Percent Compact (%)	Result			
1-001	D-5-1	5/18/2009	10	1	PF-GF-02	10.9	124.1	7.5	7.5	126.4	117.6	91.9	P	RKD		
1-002	G-5-4	5/18/2009	10	1	PF-GF-02	10.9	124.1	9.8	9.8	128.9	117.4	94.6	P	RKD		
1-003	B-6-3	6/15/2009	10	1	PF-GF-12	9.4	128.9	6.1	6.1	127	119.6	92.9	P	RKD		
1-004	D-7-2	6/15/2009	10	2	PF-GF-12	9.4	128.9	6.4	6.4	130.4	123.1	95.5	P	RKD		
1-005	C-1-2	6/15/2009	10	2	PF-GF-12	9.4	128.9	5.9	5.9	128.1	121	93.9	P	RKD		
1-006	A-6-3	6/15/2009	10	3	PF-GF-12	9.4	128.9	5.9	5.9	125.2	118.2	91.7	P	RKD		
1-007	E-1-4	6/17/2009	10	3	PF-GF-12	9.4	128.9	5.9	5.9	128.5	121.3	94.1	P	RKD		
1-008	F-7-1	6/26/2009	10	1	PF-GF-12	9.4	128.9	6.8	6.8	130.9	122.6	95.1	P	RKD		
1-009	H-7-2	6/26/2009	10	2	PF-GF-12	9.4	128.9	6.4	6.4	128.1	120.5	93.5	P	RKD		
1-010	E-6-3	6/29/2009	6	3	PF-GF-12	9.4	128.9	6.8	6.8	135	126.4	98.1	P	CL		
1-011	I-4-1	7/20/2009	6	1	PF-GF-12	9.4	128.9	3.1	3.1	128.9	125	97	P	CL		

Note: Test 1-011 was used for verification of sand cone density only

F (2F)

Attachment B

FIELD SAND CONE DENSITY TEST

(ASTM D 1556)

PROJECT: BRC CAMU

LOCATION: Henderson, NV

PROJECT NO.: SC0313

TASK NO.: 09/03

DESCRIPTION: IV Subgrade

DATE: 20 day 7 month 2009 year

SPECIFICATION REQUIREMENTS:

MATERIAL TYPE: ☐ FILL ☒ SUBGRADE ☐ SUBBASE ☐ CLAY ☐ OTHER: _____

% COMPACTION: _____ MOISTURE CONTENT RANGE: - 4 to + 4 of OPT.

TEST LOCATION: Subgrade (I-4-1)

TEST NO.: 1-003

FIELD TEST DATA - ASTM D 1556

QA ID: CL

A	BULK UNIT WT. OF SAND ¹	(pcf)	124.80	H	WT. OF WET SOIL & TARE FROM HOLE	(lbs)	3.08
B	INITIAL WT. OF SAND & JAR	(lbs)	15.26	I	TARE NUMBER		
C	FINAL WT. OF SAND & JAR	(lbs)	9.16	J	WT. OF TARE	(lbs)	0.02
D	WT. OF SAND IN FUNNEL & HOLE (=B-C)	(lbs)	6.10	K	WT OF WET SOIL FROM HOLE (=H-J)	(lbs)	3.06
E	WT. OF SAND IN FUNNEL ²	(lbs)	3.24	L	WET UNIT WT. (=K/G)	(pcf)	133.53
F	WT. OF SAND IN HOLE (=D-E)	(lbs)	2.86	M	DRY UNIT WT. (=L/[1+(U/100)])	(pcf)	129.19
G	VOLUME OF HOLE (=F/A)	(ft ³)	0.0229	N	PERCENT COMPACTION (=M/V)	(%)	100.2

NOTES

(1) USE CALIBRATION FORM

(2) THE WEIGHT OF SAND IN FUNNEL (E) IS OBTAINED BY WEIGHING THE SAND, A MINIMUM OF THREE TIMES, IN THE APPARATUS BEFORE AND AFTER THE APPARATUS HAS BEEN TURNED OVER ON THE BASE PLATE ALONG A FLAT SURFACE WITH THE SAND BEING EXPENDED.

FIELD MOISTURE CONTENT - ASTM D 2216

QA ID: CL

O	TARE NUMBER	done in lbs.	1.00	S	WT. OF WATER (=Q-R)	(g)	0.05
P	WT. OF TARE	(g)	1.28	T	WT. OF DRY SOIL (=R-P)	(g)	1.49
Q	WT. OF WET SOIL & TARE	(g)	2.82	U	MOISTURE CONTENT (=S/T)x100	(%)	3.36
R	WT. OF DRY SOIL & TARE	(g)	2.77				

PROCTOR TEST DATA

MAXIMUM DRY UNIT WT. [V]: 128.9 (pcf)

OPTIMUM MOISTURE CONTENT: 9.4 (%)

COMPARISON WITH NUCLEAR MOISTURE/DENSITY GAUGE - ASTM D 6938

QA ID: CL

W	FIELD DENSITY TEST (FDT) NUMBER	1-011	Z	FDT DRY UNIT WT.	(pcf)	125.00
X	FDT WET UNIT WT.	(pcf)	AA	DELTA DRY UNIT WT. (=M-Z)		4.19
Y	FDT MOISTURE CONTENT	(%)	BB	DELTA MOISTURE CONTENT (=U-Y)		0.26

COMMENTS

Attachment C

Production Seam Log

Project: Phase IV Location: Henderson, NV Description: Geomembrane Liner System										ProjNo: SC0313 TaskNo: 09/03									
Material Type gml : 1										Specifications:		Seam Pressure: 25-30 psi for 5 min. ≤ 3 psi loss				Vacuum Box: 5 psi for 10 sec.			
Primary / Secondary: Primary										Series: 1									
Production Seam							Location			Nondestructive Test									
Date	Time	Mach. ID	Oper. ID	Temp.	Speed	Ext/Fus:	SeamNo Series-Seam1-Seam2-Begin-End	Length (ft.)	QA ID	Location	Detail	Oper.	Result	Action	QA ID				
6/24/2009	7:58	1209	JC	850	5	F	1-001-002-000-408	408	CL	0-408	30/30	BRS	P	AT	CL				
6/24/2009	8:12	20831	EB	850	5	F	1-002-003-000-408	408	CL	0-408	30/30	BRS	P	AT	CL				
6/24/2009	9:47	1209	JC	850	5	F	1-003-004-000-408	408	CL	0-408	30/30	BRS	P	AT	CL				
6/24/2009	10:14	20831	EB	850	5	F	1-001-005-000-408	408	CL	0-408	30/30	BRS	P	AT	CL				
6/24/2009	10:50	1209	JC	850	5	F	1-005-006-000-156	156	CL	0-156	30/30	BRS	P	AT	CL				
6/25/2009	6:00	1209	JC	850	4	F	1-005-TN131-000-044	44	CL	0-44	30/30	BRS	P	AT	CL				
6/25/2009	6:09	1209	JC	850	4	F	1-005-TN131-044-104	60	CL	44-104	30/30	BRS	P	AT	CL				
6/25/2009	6:18	1209	JC	850	4	F	1-005-TN132-000-023	23	CL	0-23	30/30	BRS	P	AT	CL				
6/25/2009	6:22	1209	JC	850	4	F	1-005-TN107-000-130	130	CL	0-130	30/30	BRS	P	AT	CL				
6/25/2009	6:30	20831	EB	850	5	F	1-004-007-000-404	404	CL	0-404	30/30	BRS	P	AT	CL				
6/25/2009	6:47	1209	JC	850	4	F	1-006-TN107-000-044	44	CL	0-44	30/30	BRS	P	AT	CL				
6/25/2009	6:56	1209	JC	850	4	F	1-006-TN108-000-098	98	CL	0-98	30/30	BRS	P	AT	CL				
6/25/2009	7:25	1209	JC	850	5	F	1-008-009-000-402	402	CL	0-402	30/30	BRS	P	AT	CL				
6/25/2009	7:30	20831	EB	850	5	F	1-007-008-000-402	402	CL	0-402	30/30	BRS	P	AT	CL				
6/25/2009	8:25	1209	JC	850	5	F	1-009-010-000-402	402	CL	0-402	30/30	BRS	P	AT	CL				
6/25/2009	8:50	20831	EB	850	5	F	1-010-011-000-402	402	CL	0-402	30/30	BRS	P	AT	CL				

Production Seam Log

Project: Phase IV Location: Henderson, NV Description: Geomembrane Liner System										ProjNo: SC0313 TaskNo: 09/03							
Material Type gml : 1										Specifications: Seam Pressure: 25-30 psi for 5 min. ≤ 3 psi loss				Vacuum Box: 5 psi for 10 sec.			
Primary / Secondary: Primary										Series: 1							
Production Seam							Location			Nondestructive Test							
Date	Time	Mach. ID	Oper. ID	Temp.	Speed	Ext/Fus:	SeamNo Series-Seam1-Seam2-Begin-End	Length (ft.)	QA ID	Location	Detail	Oper.	Result	Action	QA ID		
6/25/2009	9:48	1209	JC	850	5	F	1-011-012-000-400	400	CL	0-400	30/30	BRS	P	AT	CL		
6/26/2009	6:26	1209	JC	850	5	F	1-012-013-000-402	402	CL	0-402	30/30	BRS	P	AT	CL		
6/26/2009	6:40	1210	EB	850	5.5	F	1-013-014-000-402	402	CL	0-402	30/30	BRS	P	AT	CL		
6/26/2009	9:10	1209	JC	850	5	F	1-015-016-000-180	180	CL	0-180	30/30	BRS	P	AT	CL		
6/26/2009	9:25	1210	EB	850	5.5	F	1-016-017-000-182	182	CL	0-182	30/30	BRS	P	AT	CL		
6/26/2009	9:50	1209	JC	850	5	F	1-017-018-000-182	182	CL	0-182	30/30	BRS	P	AT	CL		
6/26/2009	10:06	1210	EB	850	5	F	1-019-020-000-011	11	CL	0-11	30/30	BRS	P	AT	CL		
6/26/2009	10:15	1210	EB	850	5.5	F	1-015-020-000-089	89	CL	0-89	30/30	BRS	P	AT	CL		
6/26/2009	10:27	1210	EB	850	5.5	F	1-015-019-000-088	88	CL	0-88	30/30	BRS	P	AT	CL		
6/26/2009	12:04	1209	JC	850	4	F	1-020-TN112-000-027	27	CL	0-27	30/30	BRS	P	AT	CL		
6/26/2009	12:08	1209	JC	850	4	F	1-020-TN111-000-032	32	CL	0-32	30/30	BRS	P	AT	CL		
6/26/2009	12:14	1209	JC	850	4	F	1-020-TN110-000-032	32	CL	0-32	30/30	BRS	P	AT	CL		
6/26/2009	12:18	1209	JC	850	4	F	1-019-TN110-000-005	5	CL	0-5	30/30	BRS	P	AT	CL		
6/26/2009	12:20	1209	JC	850	4	F	1-019-TN109-000-032	32	CL	0-32	30/30	BRS	P	AT	CL		
6/26/2009	12:28	1209	JC	850	4	F	1-019-TN135-000-050	50	CL	0-50	30/30	BRS	P	AT	CL		
6/26/2009	12:38	1209	JC	850	5	F	1-018-021-000-182	182	CL	0-182	30/30	BRS	P	AT	CL		

Production Seam Log

Project: Phase IV Location: Henderson, NV Description: Geomembrane Liner System										ProjNo: SC0313 TaskNo: 09/03									
Material Type gml : 1										Specifications:		Seam Pressure: 25-30 psi for 5 min. ≤ 3 psi loss				Vacuum Box: 5 psi for 10 sec.			
Primary / Secondary: Primary										Series: 1									
Production Seam							Location			Nondestructive Test									
Date	Time	Mach. ID	Oper. ID	Temp.	Speed	Ext/Fus:	SeamNo Series-Seam1-Seam2-Begin-End	Length (ft.)	QA ID	Location	Detail	Oper.	Result	Action	QA ID				
6/26/2009	12:53	1210	EB	850	5	F	1-022-023-000-022	22	CL	0-22	30/30	BRS	P	AT	CL				
6/26/2009	13:00	1210	EB	850	5.5	F	1-021-023-000-068	68	CL	0-68	30/30	BRS	P	AT	CL				
6/26/2009	13:10	1210	EB	850	5.5	F	1-021-022-000-116	116	CL	0-116	30/30	BRS	P	AT	CL				
6/26/2009	13:12	1209	JC	850	5	F	1-023-024-000-068	68	CL	0-68	30/30	BRS	P	AT	CL				
6/26/2009	13:22	1209	JC	850	5	F	1-022-024-000-116	116	CL	0-116	30/30	BRS	P	AT	CL				
6/26/2009	13:45	1210	EB	850	5.5	F	1-024-025-000-130	130	CL	0-130	30/30	BRS	P	AT	CL				
6/26/2009	13:52	1209	JC	850	4	F	1-025-026-000-022	22	CL	0-22	30/30	BRS	P	AT	CL				
6/26/2009	14:02	1210	EB	850	5.5	F	1-024-026-000-058	58	CL	0-58	30/30	BRS	P	AT	CL				
6/27/2009	5:38	1209	JC	850	4	F	1-006-020-000-010	10	CL	0-10	30/30	BRS	P	AT	CL				
6/27/2009	5:45	1209	JC	850	4	F	1-005-015-000-022	22	CL	0-22	30/30	BRS	P	AT	CL				
6/27/2009	5:50	1209	JC	850	4	F	1-001-016-000-022	22	CL	0-22	30/30	BRS	P	AT	CL				
6/27/2009	5:55	1209	JC	850	4	F	1-002-017-000-022	22	CL	0-22	30/30	BRS	P	AT	CL				
6/27/2009	6:00	1209	JC	850	4	F	1-003-018-000-022	22	CL	0-22	30/30	BRS	P	AT	CL				
6/27/2009	6:05	1209	JC	850	4	F	1-004-021-000-022	22	CL	0-22	30/30	BRS	P	AT	CL				
6/27/2009	6:10	1209	JC	850	4	F	1-007-023-000-022	22	CL	0-22	30/30	BRS	P	AT	CL				
6/27/2009	6:15	1209	JC	850	4	F	1-008-024-000-022	22	CL	0-22	30/30	BRS	P	AT	CL				

Production Seam Log

Project: Phase IV Location: Henderson, NV Description: Geomembrane Liner System										ProjNo: SC0313 TaskNo: 09/03							
Material Type gml : 1										Specifications: Seam Pressure: 25-30 psi for 5 min. ≤ 3 psi loss				Vacuum Box: 5 psi for 10 sec.			
Primary / Secondary: Primary										Series: 1							
Production Seam							Location			Nondestructive Test							
Date	Time	Mach. ID	Oper. ID	Temp.	Speed	Ext/Fus:	SeamNo Series-Seam1-Seam2-Begin-End	Length (ft.)	QA ID	Location	Detail	Oper.	Result	Action	QA ID		
6/27/2009	6:20	1209	JC	850	4	F	1-009-025-000-022	22	CL	0-22	30/30	BRS	P	AT	CL		
6/27/2009	7:00	1210	EB	850	5.5	F	1-014-027-000-402	402	CL	0-402	30/30	BRS	P	AT	CL		
6/27/2009	7:10	1209	JC	850	5	F	1-027-028-000-402	402	CL	0-402	30/30	BRS	P	AT	CL		
6/27/2009	8:05	1210	EB	850	5.5	F	1-028-029-000-402	402	CL	0-402	30/30	BRS	P	AT	CL		
6/27/2009	8:16	1209	JC	850	5	F	1-029-030-000-402	402	CL	0-402	30/30	IS	P	AT	CL		
6/27/2009	9:10	1209	JC	850	5	F	1-030-031-196-398	202	CL	196-398	30/30	IS	P	AT	CL		
6/27/2009	9:15	1210	EB	850	5.5	F	1-030-031-000-196	196	CL	0-196	30/30	IS	P	AT	CL		
6/29/2009	8:43	1209	JC	850	5	F	1-025-032-000-132	132	CL	0-132	30/30	BRS	P	AT	CL		
6/29/2009	8:49	1210	EB	850	5.5	F	1-032-033-000-172	172	CL	0-172	30/30	IS	P	AT	CL		
6/29/2009	9:02	1209	JC	850	5	F	1-026-032-000-058	58	CL	0-58	30/30	BRS	P	AT	CL		
6/29/2009	9:19	1209	JC	850	5	F	1-033-034-000-190	190	CL	0-190	30/30	IS	P	AT	CL		
6/29/2009	9:20	1210	EB	850	5.5	F	1-032-033-172-190	18	CL	172-190	30/30	IS	P	AT	CL		
6/29/2009	9:30	1210	EB	850	5.5	F	1-034-035-000-190	190	CL	0-190	30/30	IS	P	AT	CL		
6/29/2009	9:48	1209	JC	850	5	F	1-035-036-000-184	184	CL	0-184	30/30	IS	P	AT	CL		
6/29/2009	11:35	1209	JC	850	5	F	1-037-038-000-182	182	CL	0-182	30/30	IS	P	AT	CL		
6/29/2009	11:36	1210	EB	850	5.5	F	1-036-037-000-184	184	CL	0-184	30/30	IS	P	AT	CL		

Production Seam Log

Project: Phase IV Location: Henderson, NV Description: Geomembrane Liner System										ProjNo: SC0313 TaskNo: 09/03					
Material Type gml : 1							Specifications: Seam Pressure: 25-30 psi for 5 min. ≤ 3 psi loss			Vacuum Box: 5 psi for 10 sec.					
Primary / Secondary: Primary							Series: 1								
Production Seam							Location			Nondestructive Test					
Date	Time	Mach. ID	Oper. ID	Temp.	Speed	Ext/Fus:	SeamNo Series-Seam1-Seam2-Begin-End	Length (ft.)	QA ID	Location	Detail	Oper.	Result	Action	QA ID
6/29/2009	12:06	1209	JC	850	5	F	1-039-040-000-140	140	CL	0-140	30/30	IS	P	AT	CL
6/29/2009	12:17	1210	EB	850	5.5	F	1-038-039-000-180	180	CL	0-180	30/30	IS	P	AT	CL
6/29/2009	12:28	1209	JC	850	5	F	1-040-041-000-140	140	CL	0-140	30/30	IS	P	AT	CL
6/29/2009	12:50	1210	EB	850	5.5	F	1-043-044-000-010	10	CL	0-10	30/30	IS	P	AT	CL
6/29/2009	12:55	1209	JC	850	5	F	1-041-043-000-038	38	CL	0-38	30/30	IS	P	AT	CL
6/29/2009	13:00	1210	EB	850	5.5	F	1-042-044-000-010	10	CL	0-10	30/30	IS	P	AT	CL
6/29/2009	13:02	1210	EB	850	5.5	F	1-042-043-000-035	35	CL	0-35	30/30	IS	P	AT	CL
6/29/2009	13:15	1209	JC	850	5	F	1-039-042-000-024	24	CL	0-24	30/30	IS	P	AT	CL
6/29/2009	13:25	1209	JC	850	5	F	1-039-045-000-012	12	CL	0-12	30/30	IS	P	AT	CL
6/29/2009	13:25	1210	EB	850	5.5	F	1-041-042-000-020	20	CL	0-20	30/30	IS	P	AT	CL
6/29/2009	13:32	1209	JC	850	5	F	1-040-045-000-009	9	CL	0-9	30/30	IS	P	AT	CL
6/29/2009	13:34	1209	JC	850	5	F	1-040-042-000-013	13	CL	0-13	30/30	IS	P	AT	CL
6/29/2009	13:36	1210	EB	850	5.5	F	1-042-045-000-012	12	CL	0-12	30/30	IS	P	AT	CL
6/30/2009	5:58	1210	EB	850	5	F	1-010-032-000-022	22	CL	0-22	30/30	BRS	P	AT	CL
6/30/2009	6:01	1210	B	850	5	F	1-011-033-000-022	22	CL	0-22	30/30	BRS	P	AT	CL
6/30/2009	6:05	1210	EB	850	5	F	1-012-035-000-022	22	CL	0-22	30/30	BRS	P	AT	CL

Production Seam Log

Project: Phase IV Location: Henderson, NV Description: Geomembrane Liner System										ProjNo: SC0313 TaskNo: 09/03									
Material Type gml : 1										Specifications:		Seam Pressure: 25-30 psi for 5 min. ≤ 3 psi loss				Vacuum Box: 5 psi for 10 sec.			
Primary / Secondary: Primary										Series: 1									
Production Seam							Location			Nondestructive Test									
Date	Time	Mach. ID	Oper. ID	Temp.	Speed	Ext/Fus:	SeamNo Series-Seam1-Seam2-Begin-End	Length (ft.)	QA ID	Location	Detail	Oper.	Result	Action	QA ID				
6/30/2009	6:15	1209	JC	850	5	F	1-041-046-000-190	190	RKD	0-190	30/30	IS	P	AT	CL				
6/30/2009	6:22	1210	EB	850	5.5	F	1-046-047-000-188	188	RKD	0-188	30/30	IS	P	AT	CL				
6/30/2009	6:55	1210	EB	850	5	F	1-013-035-000-007	7	RKD	0-7	30/30	IS	P	AT	CL				
6/30/2009	6:56	1210	EB	850	5	F	1-013-036-000-020	20	RKD	0-20	30/30	IS	P	AT	CL				
6/30/2009	6:59	1210	EB	850	5	F	1-014-036-000-002	2	RKD	0-2	PATCH	VB	P	VT	CL				
6/30/2009	7:00	1210	EB	850	5	F	1-014-037-000-020	20	RKD	0-20	30/30	IS	P	AT	CL				
6/30/2009	7:03	1210	EB	850	5	F	1-027-037-000-002	2	RKD	0-2	30/30	BRS	P	AT	CL				
6/30/2009	7:04	1210	EB	850	5	F	1-027-039-000-019	19	RKD	0-19	30/30	BRS	P	AT	CL				
6/30/2009	7:07	1210	EB	850	5	F	1-028-039-000-003	3	RKD	0-3	30/30	VB	P	VT	CL				
6/30/2009	7:08	1210	EB	850	5	F	1-028-040-000-019	19	RKD	0-19	30/30	IS	P	AT	CL				
6/30/2009	7:11	1210	EB	850	5	F	1-029-040-000-003	3	RKD	0-3	PATCH	VB	P	VT	CL				
6/30/2009	7:12	1210	EB	850	5	F	1-029-041-000-019	19	RKD	0-19	30/30	IS	P	AT	CL				
6/30/2009	7:15	1210	EB	850	5	F	1-030-041-000-003	3	RKD	0-3	PATCH	VB	P	VT	CL				
6/30/2009	7:16	1210	EB	850	5	F	1-030-046-000-018	18	RKD	0-18	30/30	IS	P	AT	CL				
6/30/2009	7:19	1210	EB	850	5	F	1-031-046-000-004	4	RKD	0-4	PATCH	VB	P	VT	CL				
6/30/2009	7:20	1210	EB	850	5	F	1-031-047-000-018	18	RKD	0-18	30/30	IS	P	AT	CL				

Production Seam Log

Project: Phase IV Location: Henderson, NV Description: Geomembrane Liner System										ProjNo: SC0313 TaskNo: 09/03									
Material Type gml : 1										Specifications:		Seam Pressure: 25-30 psi for 5 min. ≤ 3 psi loss				Vacuum Box: 5 psi for 10 sec.			
Primary / Secondary: Primary										Series: 1									
Production Seam							Location			Nondestructive Test									
Date	Time	Mach. ID	Oper. ID	Temp.	Speed	Ext/Fus:	SeamNo Series-Seam1-Seam2-Begin-End	Length (ft.)	QA ID	Location	Detail	Oper.	Result	Action	QA ID				
7/1/2009	9:05	1209	JC	850	5	F	1-031-048-000-400	400	CL	0-400	30/30	IS	P	AT	CL				
7/1/2009	9:20	1210	EB	850	5.5	F	1-048-049-000-406	406	CL	0-406	30/30	IS	P	AT	CL				
7/1/2009	11:42	1209	JC	850	5	F	1-049-050-000-406	406	CL	0-406	30/30	IS	P	AT	CL				
7/1/2009	12:57	1210	EB	850	5.5	F	1-050-051-000-406	406	CL	0-406	30/30	IS	P	AT	CL				
7/1/2009	14:03	1209	JC	850	5	F	1-051-052-000-406	406	CL	0-406	30/30	IS	P	AT	CL				
7/3/2009	7:00	1209	JC	850	5	F	1-052-053-000-404	404	CL	0-404	30/30	IS	P	AT	CL				
7/3/2009	7:17	1210	EB	850	5.5	F	1-053-054-000-404	404	CL	0-404	30/30	IS	P	AT	CL				
7/3/2009	8:10	1209	JC	850	5	F	1-054-055-000-404	404	CL	0-404	30/30	IS	P	AT	CL				
7/3/2009	8:35	1210	EB	850	5.5	F	1-055-056-000-406	406	CL	0-406	30/30	IS	P	AT	CL				
7/6/2009	7:02	1209	JC	850	5	F	1-056-057-000-404	404	CL	0-404	30/30	BRS	P	AT	CL				
7/6/2009	7:21	1210	EB	850	5.5	F	1-057-058-000-404	404	CL	0-404	30/30	BRS	P	AT	CL				
7/6/2009	8:20	1209	JC	850	5	F	1-058-059-000-404	404	CL	0-404	30/30	BRS	P	AT	CL				
7/6/2009	9:07	1210	EB	850	5.5	F	1-059-060-000-404	404	CL	0-404	30/30	BRS	P	AT	CL				
7/6/2009	11:50	1209	JC	850	5	F	1-060-061-000-233	233	CL	0-233	30/30	BRS	P	AT	CL				
7/6/2009	12:22	1210	EB	850	5.5	F	1-061-062-000-404	404	CL	0-404	30/30	BRS	P	AT	CL				
7/6/2009	12:36	1209	JC	850	5	F	1-060-061-233-404	171	CL	233-404	30/30	BRS	P	AT	CL				

Production Seam Log

Project: Phase IV Location: Henderson, NV Description: Geomembrane Liner System										ProjNo: SC0313 TaskNo: 09/03					
Material Type gml : 1										Specifications: Seam Pressure: 25-30 psi for 5 min. ≤ 3 psi loss					
Primary / Secondary: Primary										Series: 1					
Production Seam							Location			Nondestructive Test					
Date	Time	Mach. ID	Oper. ID	Temp.	Speed	Ext/Fus:	SeamNo Series-Seam1-Seam2-Begin-End	Length (ft.)	QA ID	Location	Detail	Oper.	Result	Action	QA ID
7/7/2009	7:32	1209	IS	850	5	F	1-062-063-000-024	24	CL	0-24	30/30	BRS	P	AT	CL
7/7/2009	7:38	1209	IS	850	5	F	1-062-063-024-402	378	CL	24-402	30/30	BRS	P	AT	CL
7/7/2009	7:57	1210	EB	850	5.5	F	1-063-064-000-404	404	CL	0-404	30/30	BRS	P	AT	CL
7/7/2009	8:36	1209	IS	850	5	F	1-064-065-000-404	404	CL	0-404	30/30	BRS	P	AT	CL
7/7/2009	9:07	1210	EB	850	5.5	F	1-065-066-000-150	150	CL	0-150	30/30	BRS	P	AT	CL
7/8/2009	7:03	1209	JC	850	5	F	1-047-067-116-178	62	KS	116-178	30/30	BRS	P	AT	CL
7/8/2009	7:20	1209	JC	850	5	F	1-047-067-000-116	116	KS	0-116	30/30	BRS	P	AT	CL
7/8/2009	7:30	1209	JC	850	4	F	1-069-070-000-022	22	KS	0-22	30/30	BRS	P	AT	CL
7/8/2009	7:32	1210	EB	850	5.5	F	1-067-068-000-181	176	KS	0-176	30/30	BRS	P	AT	CL
7/8/2009	7:39	1210	EB	850	5.5	F	1-068-069-000-040	40	KS	0-40	30/30	BRS	P	AT	CL
7/8/2009	7:40	1209	JC	850	5	F	1-069-071-000-036	36	KS	0-36	30/30	BRS	P	AT	CL
7/8/2009	7:45	1210	EB	850	5.5	F	1-068-070-000-132	132	KS	0-132	30/30	BRS	P	AT	CL
7/8/2009	7:46	1209	JC	850	5	F	1-070-071-000-132	132	KS	0-132	30/30	BRS	P	AT	CL
7/8/2009	8:10	1209	JC	850	4.5	F	1-071-072-000-096	96	KS	0-96	30/30	BRS	P	AT	CL
7/8/2009	8:11	1210	EB	850	4.5	F	1-072-073-000-022	22	KS	0-22	30/30	BRS	P	AT	CL
7/8/2009	8:24	1209	JC	850	5	F	1-071-073-000-068	68	KS	0-68	30/30	BRS	P	AT	CL

Production Seam Log

Project: Phase IV Location: Henderson, NV Description: Geomembrane Liner System										ProjNo: SC0313 TaskNo: 09/03					
Material Type gml : 1										Specifications: Seam Pressure: 25-30 psi for 5 min. ≤ 3 psi loss					
Primary / Secondary: Primary										Series: 1					
Production Seam							Location			Nondestructive Test					
Date	Time	Mach. ID	Oper. ID	Temp.	Speed	Ext/Fus:	SeamNo Series-Seam1-Seam2-Begin-End	Length (ft.)	QA ID	Location	Detail	Oper.	Result	Action	QA ID
7/8/2009	9:00	1209	JC	850	5	F	1-072-074-000-042	42	KS	0-42	30/30	BRS	P	AT	CL
7/8/2009	9:03	1210	EB	850	4.5	F	1-074-075-000-022	22	KS	0-22	30/30	BRS	P	AT	CL
7/8/2009	9:05	1209	JC	850	5	F	1-072-075-000-050	50	KS	0-50	30/30	BRS	P	AT	CL
7/8/2009	9:12	1209	JC	850	5	F	1-073-075-000-068	68	KS	0-68	30/30	BRS	P	AT	CL
7/8/2009	9:13	1210	EB	850	5.5	F	1-074-076-000-046	46	KS	0-46	30/30	BRS	P	AT	CL
7/8/2009	9:19	1210	EB	850	5.5	F	1-075-076-000-118	118	KS	0-118	30/30	BRS	P	AT	CL
7/8/2009	9:30	1209	JC	850	4	F	1-077-078-000-022	22	KS	0-22	30/30	BRS	P	AT	CL
7/8/2009	9:39	1209	JC	850	5	F	1-077-079-000-042	42	KS	0-42	30/30	BRS	P	AT	CL
7/8/2009	9:41	1210	EB	850	5.5	F	1-076-077-000-046	46	KS	0-46	30/30	BRS	P	AT	CL
7/8/2009	9:45	1209	JC	850	5	F	1-078-079-000-108	108	KS	0-108	30/30	BRS	P	AT	CL
7/8/2009	9:48	1210	EB	850	5.5	F	1-076-078-000-108	108	KS	0-108	30/30	BRS	P	AT	CL
7/8/2009	12:26	1209	JC	850	5	F	1-079-080-000-138	138	KS	0-138	30/30	BRS	P	AT	CL
7/8/2009	12:41	1210	EB	850	5.5	F	1-080-081-000-140	140	KS	0-140	30/30	BRS	P	AT	CL
7/8/2009	13:04	1209	JC	850	5	F	1-081-082-000-140	140	KS	0-140	30/30	BRS	P	AT	CL
7/8/2009	13:19	1210	EB	850	5.5	F	1-082-083-000-114	114	KS	0-114	30/30	BRS	P	AT	CL
7/8/2009	13:40	1209	JC	850	5	F	1-084-086-000-018	18	KS	0-18	30/30	BRS	P	AT	CL

Production Seam Log

Project: Phase IV Location: Henderson, NV Description: Geomembrane Liner System										ProjNo: SC0313 TaskNo: 09/03											
Material Type gml : 1										Specifications:		Seam Pressure: 25-30 psi for 5 min. ≤ 3 psi loss				Vacuum Box: 5 psi for 10 sec.					
Primary / Secondary: Primary										Series: 1											
Production Seam							Location			Nondestructive Test											
Date	Time	Mach. ID	Oper. ID	Temp.	Speed	Ext/Fus:	SeamNo Series-Seam1-Seam2-Begin-End	Length (ft.)	QA ID	Location	Detail	Oper.	Result	Action	QA ID						
7/8/2009	13:41	1210	EB	850	4.5	F	1-083-086-000-022	22	KS	0-22	30/30	BRS	P	AT	CL						
7/8/2009	13:49	1209	EB	850	5.5	F	1-083-084-000-114	114	KS	0-114	30/30	BRS	P	AT	CL						
7/8/2009	13:50	1210	EB	850	5.5	F	1-082-086-000-022	22	KS	0-22	30/30	BRS	P	AT	CL						
7/8/2009	14:02	1210	EB	850	4.5	F	1-080-085-000-022	22	KS	0-22	30/30	BRS	P	AT	CL						
7/8/2009	14:10	1210	EB	850	4.5	F	1-081-085-000-008	8	KS	0-8	PATCH&VT	IS	P	VT	CL						
7/8/2009	14:13	1210	EB	850	5.5	F	1-079-085-000-008	8	KS	0-8	30/30	BRS	P	AT	CL						
7/9/2009	6:05	1209	JC	850	4	F	1-047-048-000-010	10	KS	0-10	30/30	BRS	P	AT	CL						
7/9/2009	6:07	1209	JC	850	4	F	1-048-067-000-015	15	KS	0-15	30/30	BRS	P	AT	CL						
7/9/2009	6:11	1209	JC	850	4	F	1-049-067-000-006	6	KS	0-6	30/30	BRS	P	AT	CL						
7/9/2009	6:13	1209	JC	850	4	F	1-049-068-000-016	16	KS	0-16	30/30	BRS	P	AT	CL						
7/9/2009	6:17	1209	JC	850	4	F	1-050-068-000-006	6	KS	0-6	30/30	BRS	P	AT	CL						
7/9/2009	6:19	1209	JC	850	4	F	1-050-069-000-016	16	KS	0-16	30/30	BRS	P	AT	CL						
7/9/2009	6:23	1209	JC	850	4	F	1-051-069-000-007	7	KS	0-7	30/30	BRS	P	AT	CL						
7/9/2009	6:25	1209	JC	850	4	F	1-051-071-000-016	16	KS	0-16	30/30	BRS	P	AT	CL						
7/9/2009	6:29	1209	JC	850	4	F	1-052-071-000-007	7	KS	0-7	30/30	BRS	P	AT	CL						
7/9/2009	6:31	1209	JC	850	4	F	1-052-072-000-016	16	KS	0-16	30/30	BRS	P	AT	CL						

Production Seam Log

Project: Phase IV Location: Henderson, NV Description: Geomembrane Liner System										ProjNo: SC0313 TaskNo: 09/03							
Material Type gml : 1										Specifications: Seam Pressure: 25-30 psi for 5 min. ≤ 3 psi loss				Vacuum Box: 5 psi for 10 sec.			
Primary / Secondary: Primary										Series: 1							
Production Seam							Location			Nondestructive Test							
Date	Time	Mach. ID	Oper. ID	Temp.	Speed	Ext/Fus:	SeamNo Series-Seam1-Seam2-Begin-End	Length (ft.)	QA ID	Location	Detail	Oper.	Result	Action	QA ID		
7/9/2009	6:34	1209	JC	850	4	F	1-053-072-000-008	8	KS	0-8	30/30	BRS	P	AT	CL		
7/9/2009	6:36	1209	JC	850	4	F	1-053-074-000-015	15	KS	0-15	30/30	BRS	P	AT	CL		
7/9/2009	6:39	1209	JC	850	4	F	1-054-074-000-008	8	KS	0-8	30/30	BRS	P	AT	CL		
7/9/2009	6:41	1209	JC	850	4	F	1-054-076-000-014	14	KS	0-14	30/30	BRS	P	AT	CL		
7/9/2009	6:44	1209	JC	850	4	F	1-055-076-000-008	8	KS	08	30/30	BRS	P	AT	CL		
7/9/2009	6:46	1209	JC	850	4	F	1-055-077-000-014	14	KS	0-14	30/30	BRS	P	AT	CL		
7/9/2009	6:49	1209	JC	850	4	F	1-056-077-000-009	9	KS	0-9	30/30	BRS	P	AT	CL		
7/9/2009	6:51	1209	JC	850	4	F	1-056-079-000-014	14	KS	0-14	30/30	BRS	P	AT	CL		
7/9/2009	6:54	1209	JC	850	4	F	1-057-079-000-010	10	KS	0-10	30/30	BRS	P	AT	CL		
7/9/2009	6:56	1209	JC	850	4	F	1-057-085-000-013	13	KS	0-13	30/30	BRS	P	AT	CL		
7/9/2009	6:59	1209	JC	850	4	F	1-058-085-000-010	10	KS	0-10	30/30	BRS	P	AT	CL		
7/9/2009	7:01	1209	JC	850	4	F	1-058-081-000-0013	13	KS	0-13	30/30	BRS	P	AT	CL		
7/9/2009	7:04	1209	JC	850	4	F	1-059-081-000-010	10	KS	0-10	30/30	BRS	P	AT	CL		
7/9/2009	7:06	1209	JC	850	4	F	1-059-082-000-013	13	KS	0-13	30/30	BRS	P	AT	CL		
7/9/2009	7:09	1209	JC	850	4	F	1-060-082-000-010	10	KS	0-10	30/30	BRS	P	AT	CL		
7/9/2009	7:11	1209	JC	850	4	F	1-060-086-000-012	12	KS	0-12	30/30	BRS	P	AT	CL		

Production Seam Log

Project: Phase IV Location: Henderson, NV Description: Geomembrane Liner System										ProjNo: SC0313 TaskNo: 09/03									
Material Type gml : 1										Specifications:		Seam Pressure: 25-30 psi for 5 min. ≤ 3 psi loss				Vacuum Box: 5 psi for 10 sec.			
Primary / Secondary: Primary										Series: 1									
Production Seam							Location			Nondestructive Test									
Date	Time	Mach. ID	Oper. ID	Temp.	Speed	Ext/Fus:	SeamNo Series-Seam1-Seam2-Begin-End	Length (ft.)	QA ID	Location	Detail	Oper.	Result	Action	QA ID				
7/9/2009	7:14	1209	JC	850	4	F	1-061-086-000-010	10	KS	0-10	30/30	BRS	P	AT	CL				
7/9/2009	7:16	1209	JC	850	4	F	1-061-084-000-012	12	KS	0-12	30/30	BRS	P	AT	CL				
7/9/2009	7:18	1209	JC	850	4	F	1-062-084-000-007	7	KS	0-7	30/30	BRS	P	AT	CL				
7/9/2009	7:26	1210	EB	850	5.5	F	1-087-089-000-040	40	KS	0-40	30/30	BRS	P	AT	CL				
7/9/2009	7:28	1209	JC	850	4	F	1-088-089-000-022	22	KS	0-22	30/30	BRS	P	AT	CL				
7/9/2009	7:32	1210	EB	850	5.5	F	1-087-088-000-094	94	KS	0-94	30/30	BRS	P	AT	CL				
7/9/2009	7:40	1209	JC	850	4	F	1-084-091-000-074	74	KS	0-74	30/30	BRS	P	AT	CL				
7/9/2009	7:49	1209	JC	850	4	F	1-084-090-000-056	56	KS	0-56	30/30	BRS	P	AT	CL				
7/9/2009	8:02	1210	EB	850	5.5	F	1-089-091-000-038	38	KS	0-38	30/30	BRS	P	AT	CL				
7/9/2009	8:08	1210	EB	850	5.5	F	1-088-091-000-038	38	KS	0-38	30/30	BRS	P	AT	CL				
7/9/2009	8:14	1210	EB	850	5	F	1-088-090-000-056	56	KS	0-56	30/30	BRS	P	AT	CL				
7/9/2009	8:18	1209	JC	850	4	F	1-062-091-000-015	15	KS	0-15	30/30	BRS	P	AT	CL				
7/9/2009	8:21	1209	JC	850	4	F	1-063-091-000-008	8	KS	0-8	PATCH&VT	IS	P	VT	CL				
7/9/2009	8:25	1209	JC	850	4	F	1-063-089-000-015	15	KS	0-15	30/30	BRS	P	AT	CL				
7/9/2009	8:30	1209	JC	850	4	F	1-064-089-000-008	8	KS	0-8	30/30	BRS	P	AT	CL				
7/9/2009	8:32	1209	JC	850	4	F	1-064-087-000-015	15	KS	0-15	30/30	BRS	P	AT	CL				

Production Seam Log

Project: Phase IV										ProjNo: SC0313					
Location: Henderson, NV										TaskNo: 09/03					
Description: Geomembrane Liner System															
Material Type gml : 1				Specifications:				Seam Pressure: 25-30 psi for 5 min. ≤ 3 psi loss				Vacuum Box: 5 psi for 10 sec.			
Primary / Secondary: Primary								Series: 1							
Production Seam							Location			Nondestructive Test					
Date	Time	Mach. ID	Oper. ID	Temp.	Speed	Ext/Fus:	SeamNo Series-Seam1-Seam2-Begin-End	Length (ft.)	QA ID	Location	Detail	Oper.	Result	Action	QA ID
7/9/2009	8:35	1209	JC	850	4	F	1-065-087-000-008	8	KS	0-8	30/30	BRS	P	AT	CL
7/9/2009	8:50	1209	JC	850	4	F	1-090-091-000-011	11	KS	0-11	30/30	BRS	P	AT	CL

Total Length Fusion: 22410

Total Length Extrusion: 0

Comments: