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February 17, 2003

Ms. Nancy Lou Minkler
Remedial Project Manager
Arizona Department of Environmental Quality
3033 North Central Avenue
Phoenix, AZ 85012

Subject: Transmittal of January 2003, Monthly Progress Report
Phoenix-Goodyear Airport (PGA) Site, Goodyear, Arizona

Dear Ms. Minkler:

Attached is the monthly progress report for January 2003, for the PGA site in Goodyear, Arizona. This report is being submitted on behalf of The Goodyear Tire & Rubber Company (GTRC) to fulfill the reporting requirements outlined in the Consent Decree. Activities conducted this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- ceasing operation of the Air Sparging/SVE (AS/SVE) system (January 10, 2003);
- continuing operation of E-17 without chromium treatment with sampling of the extraction wells and the effluent (began June 18, 2001);
- beginning preparation of Work Plan for abandonment of Old Goodyear Farms irrigation well;
- preparation of an off-site Access Agreement; and
- regenerating carbon for the Southern Subunit C System ().

If you have any questions, please feel free to call me at (614) 841-4650.

Sincerely,

SHARP AND ASSOCIATES, INC.

Todd Struttmann, P.E.
Principal

cc: J. Sussman, Goodyear Tire & Rubber Company
J. Sickles, USEPA
C. Prokop, USEPA
S. Reif, Arizona Department of Water Resources
S. Zachary, Haley-Aldrich, Inc.
M. Sarmiento, BEW Systems, Inc.
R. Bartholomew, Bartholomew Engineering

TO:	Nancy Lou Minkler, Remedial Project Manager Arizona Department of Environmental Quality (ADEQ)
FROM:	Jeff Sussman, Project Manager The Goodyear Tire & Rubber Company (GTRC)
SUBJECT:	January 2003 Monthly Progress Report, Phoenix-Goodyear Airport (PGA) Site in Goodyear, Arizona
DATE:	February 16, 2003

CURRENT ACTIVITIES

This monthly report describes PGA site activities conducted during January 2003. Notable activities are described below or detailed in the sections that follow. Activities this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- ceasing operation of the Air Sparging/SVE (AS/SVE) system (January 10, 2003);
- continuing operation of E-17 without chromium treatment with sampling of the extraction wells and the effluent (began June 18, 2001);
- beginning preparation of Work Plan for abandonment of Old Goodyear Farms irrigation well;
- preparation of an off-site Access Agreement; and
- regenerating carbon for the Southern Subunit C System ().

Trichloroethene (TCE) was detected in well COG#11 on November 19, 1997. GTRC agreed to continue sampling the well on a monthly basis until the Northern Subunit C delineation is complete and an extraction system in place. COG-11 was not in operation this month and is scheduled for repair by the City of Goodyear. This well will be sampled following repair.

OUTSTANDING ISSUES/RESOLUTIONS

To complete the extraction well network for capture of the Northern Subunit C plume, GTRC needs an additional extraction well north of Yuma Road. GTRC, USEPA, ADEQ, City of Goodyear and the off-site landowner met to discuss access. A subsequent meeting with the landowner (Robert Kohnen) was held on November 21, 2002. An access agreement is in progress which will be presented to Mr. Kohnen in February. .

PLANS FOR THE NEXT MONTH

Plans for February 2003 include:

- continuing operation of the Subunit A treatment system, the Northern Subunit C treatment system, and the Southern Subunit C treatment system;
- continuing operation of E-17 without chrome treatment and collecting samples of the extraction wells and system effluent to confirm compliance with the discharge permit;
- continue resolving access with the landowner for installation of E-102;
- preparing specifications for abandonment of the former Goodyear Farms well;
- meeting with the off-site land owner to resolve/secure access for proposed extraction well E-102 (February 12); and

- meeting with ADEQ to discuss proposal to change groundwater sampling program (February 13th).

Air Sparging/SVE in Infield

The SVE system was started up on November 29, 2001 and the air sparging commenced on November 30, 2001.

The SVE/air sparging system was shut down on January 10, 2003. The overall SVE/air sparging was considered successful in removing TCE from Subunit A. The system did not adversely affect the existing AVGAS plume. The monitoring points downgradient (south) of the sparging were not part of the network to monitor the effect of the sparging in the infield. It is important to note that groundwater from the area of the infield flows towards extraction well E-7R. Baseline concentrations in well E-7R were 267 ug/L in January of 2002 immediately after SVE startup. The concentrations in the May and August 2002 results were 266 and 267 ug/L, respectively. The concentration in October increased to 440 ug/L. One interpretation of these data is that the sparging mobilized some of the TCE in the ground water which is being extracted by well E-7R. The effect of this sparging was later observed in the extraction well (after accounting for the ground water flow time of travel). Subsequent monitoring of E-7 will help determine whether this interpretation is further supported.

CHROMIUM MANAGEMENT APPROACH

As part of the chrome management approach, well E-17 was placed on-line without chrome treatment on June 18, 2001 and weekly sampling commenced for 3 weeks and then reverted to monthly. Key wells are sampled monthly and the balance quarterly. The analytical results for the last six months are presented in the table below.

Extraction Well	7/16/02 CRT* (mg/L)	8/14/02 CRT (mg/L)	9/10/02 CRT (mg/L)	10/7/02 CRT (mg/L)	11/6/02 CRT (mg/L)	12/12/02 CRT (mg/L)	1/14/03 CRT (mg/L)
NE-1	NA	NA	NA	0.058	NA	NA	0.065
NE-2	0.027	NA	NA	0.012	NA	NA	0.012
NE-3	0.013	NA	NA	0.011	NA	NA	0.023
NE-4	0.028	NA	NA	0.030	NA	NA	0.028
NE-5	0.127	NA	NA	0.127	NA	NA	0.120
E-07R	0.282	0.233	0.258	0.239	0.340	0.246	0.275
E-08	0.065	NA	NA	0.056	NA	NA	0.042
E-10	0.008	NA	NA	0.009	NA	NA	0.006
E-11	0.043	NA	NA	0.037	NA	NA	0.031
E-12	0.204	0.171	0.181	0.184	0.265	0.189	0.222
E-16	NS	NA	NA	NS	NA	NA	NS
E-17	0.153	0.139	NS	NS	NA	NA	NS
Air stripper Effluent predicted (a)	0.095	0.079	0.081	0.084	0.092	0.77	0.080
Air stripper Effluent actual	0.081	0.065	0.088	0.086	0.087	0.073	0.089

*CRT – total chromium results by method EPA 200.7. All the samples were digested prior to analysis as required by the method.
NS – not sampled due to well off line.
NA – not analyzed as per sampling program
(a)– the predicted effluent concentration is based on a mass weighted average from the individual extraction wells.

On December 20, 2002, ADEQ provided an acceptance to GTRC's proposal for demolition of the chrome system. Plans are in process to demolish the chrome plant during First Quarter of 2003.

NORTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

Operation of the Northern Subunit C system continued during January 2003. A total of 5.2 million gallons (MG) of water was extracted. The system operated 31 out of 31 days in January. The treatment system influent sample contained TCE at a concentration of 2.0 µg/L (1/14/03), yielding a calculated mass removal this month of 0.09 lbs. Total mass removed to date by the system is 20.64 lbs. TCE was detected in the sample collected between the carbon vessels at 1.2 µg/L.

Production for January 2003 was as follows:

Wells **Injection Wells**	**Production (MG)**	**Average Rate (gpm)**	**Days On/Uptime Rate (days/gpm)**
I-101	*	*	
I-102	*	*	
Total Injected	*	*	**31****
Extraction wells			
E-101	2.8	62.7	**31/62.7**
GAC#2	2.4	50.5	**33/50.5**
Total Extracted	**5.2**		

* Injection well flow meter not operating correctly and is reporting erroneous data
** Total flow based on data as reported by Lockheed Martin between 1/2/03 to 2/3/03

SOUTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

A total of 7.4 MG of water was extracted from the Southern Subunit C treatment system during January 2003. The system operated 21 out of a possible 31 days. The January inlet sample contained TCE at 8.5 µg/L (1/22/03) yielding a calculated mass removal for TCE during January of 0.53 lbs. Total mass removed to date by the Southern Subunit C system is 154.55 lbs.

The TCE result was <1.0 µg/L in the sample collected between the carbon vessels.

The Southern Subunit C system was offline for 10 days for the regeneration of the carbon vessels. The treatment system was shut down on January 7, 2003 due to detection of TCE between the primary and secondary carbon vessels. The carbon was regenerated on January 17, 2003. The system was restarted following the regeneration event. ADEQ was notified of the temporary cessation of production as required by the consent decree.

e table below shows the carbon change out history for the Southern Subunit C system:

Vessel Flow Configuration*	Operational Dates	Time to Detect TCE >5 µg/l**	Time Before Required Change out
A/B	Startup (10/94) –6/95	6 months	8 months
A'/B	6/95 – 12/95	3 months	6 months
A''/B	12/95 – 10/96	8 months	10 months
B/A''	10/96-1/22/97	1 month	3 months
A''/B'	1/22/97-10/30/97	9 months	10 months
B'/A'''	10/31/97 – 6/22/98	7 months	8 months
A'''/B''	6/22/98 – 8/25/99	12 months	14 months
B'''/A'''	8/25/99 – 10/4/00	13 months	13 months
A''''/B'''	10/4/00- 10/17/01	12 months	12 months
B''''/A''''	10/17/01- 1/16/03	14 months	14 months
A'''''/B'''''	1/16/03 - present	> 1 month	to be determined

essel contents A - virgin coal based carbon
irgin coal based carbon
on site regenerated coal based carbon
coconut based carbon (applies to A''', A'''')
coconut based carbon (applies to B'', B''', and B'''')
The detection limit is 1 µg/L; the action level is 5 µg/L detected between the vessels, detection at this level initiates the planning cess for the next change out. Time is presented in months after change out.

duction for the Southern Subunit C system in January 2003 is as follows:

traction ells	Production (MG)	Average Rate(gpm)	Days On/Avg.Rate (days/gpm)
01	4.3	96.3	21/142.2
02	3.1	69.4	21/102.5
03	WELL REMOVED	FROM SERVICE	
tals	**7.4**	**165.8**	**21/244.7**
ection ells	**Production (MG)**	**Average Rate(gpm)**	**Days On/Avg.Rate (days/gpm)**
01	2.8	62.7	21/92.6
02	2.7	60.5	21/89.3
03	1.4	31.4	21/46.3
tals	**6.9**	**154.6**	**21/228.2**

BUNIT A TREATMENT SYSTEM OPERATION

otal of 20.5 MG of water was treated at the Subunit A system in January 2003. The Subunit A raction system operated at an uptime rate of 476.1 gpm for 29.9 of 31 days this month. The tment system influent sample contained TCE at a concentration of 129.0 µg/L (1/14/03) yielding a culated mass removal of 22.08 lbs for the month of January. The cumulative total TCE mass oved by the Subunit A treatment system to date is 4,558.01 lbs. The TCE result in the effluent ple taken from the air stripper tower at the Subunit A Treatment System was <1.0 µg/L.

The Subunit A treatment system was offline for 27 hrs in January due to failure of the plant's air compressor motor.

Production for the Subunit A system in January 2003 is as follows:

Extraction Wells	Production (MG)	Average Rate (gpm)	On time Days/Rate (gpm)
Total Extracted	**20.5**	**459.2**	**29.9/476.1**
Total Injected	**19.7**	**441.3**	**29.9/457.5**

- The differences between total extracted and total injection is due to evaporation across the air stripper and meter variances.

Performance Measurement Tracking Log
Project Manager Input Form

PERIOD COVERED: January 2003
DATE DUE: February 15, 2003

ADMINISTRATIVE INFORMATION:

1. Main Site Code: **41-0000-02**
1a. Facility Site Code:
2. Site Name **Phoenix Goodyear Airport (south)**
3. Project Manager: **Nancy Lou Minkler**
4. Funding Type: **CERCLA- consent decree required**

Technical Information

5. DEQ Site Visits (RPM & Hydro)	0	6. Meetings w/Ips	0
7. Public Meetings Held	0	8. Fact Sheets on a site	
9. Water Samples Taken (DEQ/EPA)	30	10. Water Samples Taken (IP)	
11. Soil/Soil Gas Samples Taken (DEQ/EPA)		12. Soil/Soil Gas Samples Taken (IP)	0
13. Air Samples Taken (DEQ/EPA)	0	14. Air Sample Taken (IP)	0
15. Ground Water Wells Installed (DEQ) Date Installed ___/___/___		16. Ground Water Wells Installed (IP)	0
17. Soil Vapor Wells Installed (DEQ) Date Installed ___/___/___	0	18. Soil Vapor Wells Installed (IP) Date Installed ___/___/___	0
19. Abandoned Ground Water Wells Date Abandoned ___/___/____	0	20. Abandoned Other Wells Date Abandoned ___/___/___	0
21. Remedial Investigation (started) overall area and/or facilities (see comments).	0	22. Remedial Investigations (completed)	0
23. Date Risk Assessment Completed	0	24. Date Feasibility Study Underway ___/___/___	0
25. Date Feasibility Study Went Underway	0	26. Remedial Design 10% 30% 60%	100%
27. Construction Start Date ___/___/___	0	28. Technology Used: pump and treat for water (air stripper Subunit A/GAC for Subunit C), SVE for Soil	
29. Treatment Plant Start Date 12/89 Subunit A; 2/94 North Subunit C; 10/94 South Subunit C		30. Date Remedial Action Completed ___/___/___	
31. Gallons Water Treated (VOCs) Subunit A 20,500,000 Southern Subunit C 7,400,000 Northern Subunit C 5,200,000		32. Hazardous Substance Removed (VOCs) in GW Treatment	22.7
33. Gallons Water Treated (metals)	0	34. Hazardous Substance Removed (metals)	0
35. Gallons Water Treated (other)	0	36. Hazardous Substance Removed (other)	0 lbs
37. Tons Soil Treated On-Site 0 (tons) 1 cy = 1 ton	0	38. Tons Soil Taken Off-site	0 (tons)
39. Acres Remediated		40. End Use of Water - (reinjection)	
41. Estimated reject Completion Date		42. Actual Completion Date ___/___/___	

SHARP Environmental Engineers and Scientists
AND ASSOCIATES, INC.

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Fax (614) 841-4660

March 17, 2003

Ms. Nancy Lou Minkler
Remedial Project Manager
Arizona Department of Environmental Quality
3033 North Central Avenue
Phoenix, AZ 85012

Subject: Transmittal of February 2003, Monthly Progress Report
Phoenix-Goodyear Airport (PGA) Site, Goodyear, Arizona

Dear Ms. Minkler:

Attached is the monthly progress report for February 2003, for the PGA site in Goodyear, Arizona. This report is being submitted on behalf of The Goodyear Tire & Rubber Company (GTRC) to fulfill the reporting requirements outlined in the Consent Decree. Activities conducted this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- beginning preparation of Work Plan for abandonment of Old Goodyear Farms irrigation well;
- meeting with the off-site land owner to resolve/secure access for proposed extraction well E-102 (February 12th);
- preparing an off-site Access Agreement for proposed extraction well E-102;
- submitting the Second Semi-Annual 2002 Groundwater Monitoring Report to ADEQ;
- meeting with ADEQ to discuss proposal to change groundwater sampling program (February 13th); and
- meeting with City of Phoenix regarding site well modifications to accommodate some taxiway re-grading planned for this summer.

If you have any questions, please feel free to call me at (614) 841-4650.

Sincerely,

SHARP AND ASSOCIATES, INC.

Todd Struttmann, P.E.
Principal

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cc: J. Sussman, Goodyear Tire & Rubber Company
J. Sickles, USEPA
C. Prokop, USEPA
S. Reif, Arizona Department of Water Resources
S. Zachary, Haley-Aldrich, Inc.
M. Sarmiento, BEW Systems, Inc.
R. Bartholomew, Bartholomew Engineering

TO:	Nancy Lou Minkler, Remedial Project Manager Arizona Department of Environmental Quality (ADEQ)
FROM:	Jeff Sussman, Project Manager The Goodyear Tire & Rubber Company (GTRC)
SUBJECT:	February 2003 Monthly Progress Report, Phoenix-Goodyear Airport (PGA) Site in Goodyear, Arizona
DATE:	March 17, 2003

CURRENT ACTIVITIES

This monthly report describes PGA site activities conducted during February 2003. Notable activities are described below or detailed in the sections that follow. Activities this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- beginning preparation of Work Plan for abandonment of Old Goodyear Farms irrigation well;
- meeting with the off-site land owner to resolve/secure access for proposed extraction well E-102 (February 12th);
- preparing an off-site access agreement for proposed extraction well E-102;
- submitting the Second Semi-Annual 2002 Groundwater Monitoring Report to ADEQ;
- meeting with ADEQ to discuss proposal to change groundwater sampling program (February 13th); and
- meeting with City of Phoenix regarding site well modifications to accommodate some taxiway re-grading planned for this summer.

Trichloroethene (TCE) was detected in well COG#11 on November 19, 1997. GTRC agreed to continue sampling the well on a monthly basis until the Northern Subunit C delineation is complete and an extraction system in place that is planned for 2003. COG-11 was not in operation in February and was later repaired by the City of Goodyear. The March sample was collected following repair and re-starting this well.

OUTSTANDING ISSUES/RESOLUTIONS

To complete the extraction well network for capture of the Northern Subunit C plume, GTRC needs an additional extraction well north of Yuma Road. GTRC, USEPA, ADEQ, City of Goodyear and the off-site landowner met to discuss access. A subsequent meeting with the landowner (Robert Kohnen) was held on November 21, 2002. An access agreement is in progress which was presented to Mr. Kohnen in February.

PLANS FOR THE NEXT MONTH

Plans for March 2003 include:

- continuing operation of the Subunit A treatment system, the Northern Subunit C treatment system, and the Southern Subunit C treatment system;
- re-starting E-17 following some controls adjustments;
- continue resolving access with the landowner for installation of E-102;

- providing ADEQ with additional groundwater data so they can complete their review of the proposed groundwater monitoring plan;
- preparing specifications for abandonment of the former Goodyear Farms well; and
- submitting Notice of Intention to Abandon (NOIA) requests to Arizona Department of Water Resources (ADWR) for wells E-101, I-101, I-102, Goodyear farm well, ASI-1, ASI-2 and ASI-3.

Air Sparging/SVE in Infield

The SVE/air sparging system operated from November 29, 2001 through January 10, 2003. Additional sampling of surrounding wells will continue for one quarter to determine the longer term effects of this field program. During the meeting on February 12, 2003, ADEQ requested that GTRC evaluate other potential areas where this sparging/SVE technology could be used at the PGA site before moving the equipment off site.

CHROMIUM MANAGEMENT APPROACH

As part of the chromium management approach, well E-17 was placed on-line without chrome treatment on June 18, 2001. Key wells are sampled monthly and the balance quarterly. The analytical results for the last six months are presented in the table below.

Extraction Well	8/14/02 CRT* (mg/L)	9/10/02 CRT* (mg/L)	10/7/02 CRT* (mg/L)	11/6/02 CRT* (mg/L)	12/12/02 CRT* (mg/L)	1/14/03 CRT* (mg/L)	2/18/03 CRT* (mg/L)
NE-1	NA	NA	0.058	NA	NA	0.065	NA
NE-2	NA	NA	0.012	NA	NA	0.012	NA
NE-3	NA	NA	0.011	NA	NA	0.023	NA
NE-4	NA	NA	0.030	NA	NA	0.028	NA
NE-5	NA	NA	0.127	NA	NA	0.120	NA
E-07R	0.233	0.258	0.239	0.340	0.246	0.275	0.252
E-08	NA	NA	0.056	NA	NA	0.042	NA
E-10	NA	NA	0.009	NA	NA	0.006	NA
E-11	NA	NA	0.037	NA	NA	0.031	NA
E-12	0.171	0.181	0.184	0.265	0.189	0.222	0.200
E-16	NA	NA	NS	NA	NA	NS	NS
E-17	0.139	NS	NS	NA	NA	NS	NS
Air stripper Effluent predicted (a)	0.079	0.081	0.084	0.092	0.770	0.080	0.068
Air stripper Effluent actual	0.065	0.088	0.086	0.087	0.073	0.089	0.082

*CRT – total chromium results by method EPA 200.7. All the samples were digested prior to analysis as required by the method.
NS – not sampled due to well off line.
NA – not analyzed as per sampling program
(a)– the predicted effluent concentration is based on a mass weighted average from the individual extraction wells.

On December 20, 2002, ADEQ provided an acceptance to GTRC's proposal for demolition of the chromium system. Plans are in process to demolish the chromium plant during April 2003.

NORTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

Operation of the Northern Subunit C system continued during February 2003. A total of 4.3 million gallons (MG) of water was extracted. The system operated 27 out of 28 days in February. The Northern Subunit C system was offline for 1 day due to a power outage. The treatment system influent sample contained TCE at a concentration of 2.2 µg/L (2/12/03), yielding a calculated mass removal this month of 0.08 lbs. Total mass removed to date by the system is 20.72 lbs. TCE was detected in the sample collected between the carbon vessels at 1.4 µg/L.

Production for February 2003 was as follows:

Wells **Injection Wells**	**Production (MG)**	**Average Rate (gpm)**	**Days On/Uptime Rate (days/gpm)**
I-101	*	*	
I-102	*	*	
Total Injected	*	*	
Extraction wells			
E-101	2.4	59.5	**27/61.7**
GAC#2 **	1.9	45.5	**29/45.5**
Total Extracted	**4.3**		

* Injection well flow meter not operating correctly and is reporting erroneous data

** Total flow based on data as reported by Lockheed Martin between 2/3/02 to 3/4/03

SOUTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

A total of 9.8 MG of water was extracted from the Southern Subunit C treatment system during February 2003. The system operated 28 out of a possible 28 days. The February inlet sample contained TCE at 8.2 µg/L (2/12/03) yielding a calculated mass removal for TCE during February of 0.67 lbs. Total mass removed to date by the Southern Subunit C system is 155.22 lbs. The TCE result was <1.0 µg/L in the sample collected between the carbon vessels.

The table below shows the carbon change out history for the Southern Subunit C system:

Vessel Flow Configuration*	**Operational Dates**	**Time to Detect TCE >5 µg/l****	**Time Before Required Change out**
A/B	Startup (10/94) –6/95	6 months	8 months
A'/B	6/95 – 12/95	3 months	6 months
A''/B	12/95 – 10/96	8 months	10 months
B/A''	10/96-1/22/97	1 month	3 months
A''/B'	1/22/97-10/30/97	9 months	10 months
B'/A'''	10/31/97 – 6/22/98	7 months	8 months
A'''/B''	6/22/98 – 8/25/99	12 months	14 months
B'''/A'''	8/25/99 – 10/4/00	13 months	13 months
A''''/B'''	10/4/00- 10/17/01	12 months	12 months
B''''/A''''	10/17/01- 1/16/03	14 months	14 months

Vessel Flow Configuration*	Operational Dates	Time to Detect TCE >5 µg/l**	Time Before Required Change out
A''''/B'''''	1/16/03 - present	> 2 month	to be determined

* Vessel contents A - virgin coal based carbon
B - virgin coal based carbon
A' - on site regenerated coal based carbon
A''- coconut based carbon (applies to A''', A'''')
B' - coconut based carbon (applies to B'', B''', and B'''')
** The detection limit is 1 µg/L, the action level is 5 µg/L detected between the vessels; detection at this level initiates the planning process for the next change out. Time is presented in months after change out.

Production for the Southern Subunit C system in February 2003 is as follows:

Extraction Wells	Production (MG)	Average Rate(gpm)	Days On/Avg.Rate (days/gpm)
E-201	5.6	138.9	28/138.9
E-202	4.2	104.2	28/104.2
E-203	WELL REMOVED FROM SERVICE		
Totals	**9.8**	**243.1**	**28/243.1**
Injection Wells	**Production (MG)**	**Average Rate(gpm)**	**Days On/Avg.Rate (days/gpm)**
I-201	3.8	94.2	28/94.2
I-202	3.6	89.3	28/89.3
I-203	1.9	47.1	28/47.1
Totals	**9.3**	**230.6**	**28/230.6**

SUBUNIT A TREATMENT SYSTEM OPERATION

A total of 13.5 MG of water was treated at the Subunit A system in February 2003. The Subunit A extraction system operated at an uptime rate of 473.5 gpm for 19.8 of 28 days this month. The Subunit A treatment system was offline for 8.2 days for replacement of the system's air compressor motor, pressure switch and power monitor.

The treatment system influent sample contained TCE at a concentration of 68.4 µg/L (2/18/03) yielding a calculated mass removal of 7.71 lbs for the month of February. The cumulative total TCE mass removed by the Subunit A treatment system to date is 4,565.72 lbs. The TCE result in the effluent sample taken from the air stripper tower at the Subunit A Treatment System was <1.0 µg/L.

Production for the Subunit A system in February 2003 is as follows:

Extraction Wells	Production (MG)	Average Rate (gpm)	On time Days/Rate (gpm)
Total Extracted	**13.5**	**334.8**	**19.8/473.5**
Total Injected	**12.9**	**319.9**	**19.8/452.4**

- The differences between total extracted and total injection is due to evaporation across the air stripper and meter variances.

Performance Measurement Tracking Log
Project Manager Input Form

PERIOD COVERED: February 2003
DATE DUE: March 15, 2003

ADMINISTRATIVE INFORMATION:

1. Main Site Code: **41-0000-02**
1a. Facility Site Code:
2. Site Name **Phoenix Goodyear Airport (south)**
3. Project Manager: **Nancy Lou Minkler**
4. Funding Type: **CERCLA- consent decree required**

Technical Information

5. DEQ Site Visits (RPM & Hydro)	0	6. Meetings w/Ips	0
7. Public Meetings Held	0	8. Fact Sheets on a site	
9. Water Samples Taken (DEQ/EPA)	30	10. Water Samples Taken (IP)	
11. Soil/Soil Gas Samples Taken (DEQ/EPA)		12. Soil/Soil Gas Samples Taken (IP)	0
13. Air Samples Taken (DEQ/EPA)	0	14. Air Sample Taken (IP)	0
15. Ground Water Wells Installed (DEQ) Date Installed ___/___/___		16. Ground Water Wells Installed (IP)	0
17. Soil Vapor Wells Installed (DEQ) Date Installed ___/___/___	0	18. Soil Vapor Wells Installed (IP) Date Installed ___/___/___	0
19. Abandoned Ground Water Wells Date Abandoned ___/___/____	0	20. Abandoned Other Wells Date Abandoned ___/___/___	0
21. Remedial Investigation (started) overall area and/or facilities (see comments).	0	22. Remedial Investigations (completed)	0
23. Date Risk Assessment Completed	0	24. Date Feasibility Study Underway ___/___/___	0
25. Date Feasibility Study Went Underway	0	26. Remedial Design 10% 30% 60%	100%
27. Construction Start Date ___/___/___	0	28. Technology Used: pump and treat for water (air stripper Subunit A/GAC for Subunit C), SVE for Soil	
29. Treatment Plant Start Date 12/89 Subunit A; 2/94 North Subunit C; 10/94 South Subunit C		30. Date Remedial Action Completed ___/___/___	
31. Gallons Water Treated (VOCs) Subunit A 13,500,000 Southern Subunit C 9,800,000 Northern Subunit C 4,300,000		32. Hazardous Substance Removed (VOCs) in GW Treatment	8.46
33. Gallons Water Treated (metals)	0	34. Hazardous Substance Removed (metals)	0
35. Gallons Water Treated (other)	0	36. Hazardous Substance Removed (other)	0 lbs
37. Tons Soil Treated On-Site 0 (tons) 1 cy = 1 ton	0	38. Tons Soil Taken Off-site	0 (tons)
39. Acres Remediated		40. End Use of Water - (reinjection)	
41. Estimated reject Completion Date		42. Actual Completion Date ___/___/___	

SHARP Environmental Engineers and Scientists
AND ASSOCIATES, INC.

982 Crupper Avenue
Columbus, Ohio 43229
(614) 841-4650
Fax (614) 841-4660

May 27, 2003

Ms. Nancy Lou Minkler
Remedial Project Manager
Arizona Department of Environmental Quality
3033 North Central Avenue
Phoenix, AZ 85012

Subject: Transmittal of April 2003, Monthly Progress Report
Phoenix-Goodyear Airport (PGA) Site, Goodyear, Arizona

Dear Ms. Minkler:

Attached is the monthly progress report for April 2003, for the PGA site in Goodyear, Arizona. This report is being submitted on behalf of The Goodyear Tire & Rubber Company (GTRC) to fulfill the reporting requirements outlined in the Consent Decree. Activities conducted this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- dismantlement and disposal of the E-17 Chrome treatment system;
- update of the control logic and system data for the reconfigured E-17 extraction well;
- removal of the SVE piping form the former Polygon 92/27A/96 SVE System;
- preparing a Work Plan for abandonment of the Old Goodyear Farms irrigation well;
- meeting with ADEQ the week of April 21st to discuss project status;
- preparing an off-site access agreement for extraction well E-102; and
- revising the groundwater sampling plan based discussions with ADEQ (April 11th).

If you have any questions, please feel free to call me at (614) 841-4650.

Sincerely,

SHARP AND ASSOCIATES, INC.

Todd Struttmann, P.E.
Principal

cc: J. Sussman, Goodyear Tire & Rubber Company

E:\ProjOld\5110\PGA Monthly\2003\PGAApril03a.doc

J. Sickles, USEPA
S. Reif, Arizona Department of Water Resources
M. Sarmiento, BEW Systems, Inc.
R. Bartholomew, Bartholomew Engineering

TO:	Nancy Lou Minkler, Remedial Project Manager Arizona Department of Environmental Quality (ADEQ)
FROM:	Jeff Sussman, Project Manager The Goodyear Tire & Rubber Company (GTRC)
SUBJECT:	April 2003 Monthly Progress Report, Phoenix-Goodyear Airport (PGA) Site in Goodyear, Arizona
DATE:	May 27, 2003

CURRENT ACTIVITIES

This monthly report describes PGA site activities conducted during April 2003. Notable activities are described below or detailed in the sections that follow. Activities this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- dismantlement and disposal of the E-17 Chrome treatment system;
- update of the control logic and system data for the reconfigured E-17 extraction well;
- removal of the SVE piping form the former Polygon 92/27A/96 SVE System;
- preparing a Work Plan for abandonment of the Old Goodyear Farms irrigation well;
- meeting with ADEQ the week of April 21st to discuss project status;
- preparing an off-site access agreement for extraction well E-102; and
- revising the groundwater sampling plan based discussions with ADEQ (April 11th).

Trichloroethene (TCE) was detected in well COG#11 on December 19, 1997. GTRC agreed to continue sampling the well on a monthly basis until the Northern Subunit C delineation is complete and an extraction system in place. The sample collected from COG #11 on April 11, 2003, resulted in a non-detect at <1.0 µg/L for TCE.

OUTSTANDING ISSUES/RESOLUTIONS

To complete the extraction well network for capture of the Northern Subunit C plume, an additional extraction is required well north of Yuma Road. An access agreement is currently being executed with the property owner.

PLANS FOR THE NEXT MONTH

Plans for May 2003 include:

- continuing operation of the Subunit A treatment system, the Northern Subunit C treatment system, and the Southern Subunit C treatment system;
- re-starting well E-17 following controls adjustments;
- disposing of wastes as appropriate from the demolition of the former chrome treatment unit;
- preparing specifications for abandonment of the former Goodyear Farms well;
- submitting Notice of Intent to Abandon (NOIA) requests to Arizona Department of Water Resources (ADWR) for wells E-101, I-101, I-102, INJSB#1, INJSB#2, Goodyear farm well, and air sparging wells ASI-1, ASI-2 and ASI-3; and
- commencing drilling of extraction well E-102.

CHROMIUM MANAGEMENT APPROACH

As part of the chromium management approach, well E-17 was placed on-line without chrome treatment on June 18, 2001. Key wells are sampled monthly and the balance quarterly. The analytical results for the last six months are presented in the table below.

Extraction Well	10/7/02 CRT* (mg/L)	11/6/02 CRT* (mg/L)	12/12/02 CRT* (mg/L)	1/14/03 CRT* (mg/L)	2/18/03 CRT* (mg/L)	3/13/03 CRT* (mg/L)	4/11/03 CRT* (mg/L)
NE-1	0.058	NA	NA	0.065	NA	NA	0.059
NE-2	0.012	NA	NA	0.012	NA	NA	0.014
NE-3	0.011	NA	NA	0.023	NA	NA	0.009
NE-4	0.030	NA	NA	0.028	NA	NA	0.024
NE-5	0.127	NA	NA	0.120	NA	NA	0.090
E-07R	0.239	0.340	0.246	0.275	0.252	0.222	0.186
E-08	0.056	NA	NA	0.042	NA	NA	0.051
E-10	0.009	NA	NA	0.006	NA	NA	<0.005
E-11	0.037	NA	NA	0.031	NA	NA	0.028
E-12	0.184	0.265	0.189	0.222	0.200	0.174	0.171
E-16	NS	NA	NA	NS	NS	NS	NS
E-17	NS	NA	NA	NS	NS	NS	NS
Air stripper Effluent predicted (a)	0.084	0.092	0.770	0.080	0.068	0.069	0.061
Air stripper Effluent actual	0.086	0.087	0.073	0.089	0.082	0.070	0.068

*CRT – total chromium results by method EPA 200.7. All the samples were digested prior to analysis as required by the method.

NS – not sampled due to well off line.

NA – not analyzed as per sampling program

(a)– the predicted effluent concentration is based on a mass weighted average from the individual extraction wells.

On December 20, 2002, ADEQ provided acceptance of GTRC's proposal for demolition of the chromium system. Following approval of the demolition plan by GTRC, dismantling of the chrome system began on 4/21/03 and was completed on 4/25/03.

The dismantlement included removal and disposal of the E-17 water softener, the chrome removal system, removal and storage for future use of the poly storage tanks, waste tanks and mix tanks, and demolition and disposal of the concrete containment pad area that the unit was located on. All disposed of waste (piping, vessels, concrete, and misc. material) was placed into roll off containers and is awaiting disposal acceptance for final disposal.

The radio enclosure was retrofitted with the PLC from the softener system to allow for remote control and flow meter reporting for the E-17 well. The PLC logic from the softener control panel was modified to reflect the changes in the E-17 well control and flow configuration. For the system to record instantaneous flow rate, a new paddlewheel assembly and flow tee housing were installed in the surface piping at the former chrome system compound. The new logic was tested to verify values and control was capable from the AST control room as well as remotely.

Following verification of operation the E-17 well was placed online at a rate of 25-31 gpm. The flow control valve for E-17 will be replaced from a Gate valve to a Globe valve to allow for better flow rate control.

Additionally, the piping from the former Polygon 92/27A/96 SVE system was cut into ~10-12 foot sections and disposed of in the rolloff containers with the chrome system debris. Other scrap piping and old equipment store at the AST compound was disposed with the chrome system waste.

NORTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

Operation of the Northern Subunit C system continued during April 2003. A total of 5.5 million gallons (MG) of water was extracted. The system operated 30 out of 30 days in April. The treatment system influent sample contained TCE at a concentration of 2.5 µg/L (4/11/03) yielding a calculated mass removal this month of 0.11lbs. Total mass removed to date by the system is 20.96 lbs. TCE was detected in the sample collected between the carbon vessels at 1.5 µg/L.

Production for April 2003 was as follows:

Wells **Injection Wells**	**Production (MG)**	**Average Rate (gpm)**	**Days On/Uptime Rate (days/gpm)**
I-101	*	*	*
I-102	*	*	*
Total Injected	*	*	*
Extraction wells			
E-101	2.7	**	**
GAC#2 **	2.8	**	**
Total Extracted	**5.5**		

* Injection well flow meter not operating correctly and is reporting erroneous data

** Total flow based on data as reported by Lockheed Martin reported on 5/1/03. Flow for period between 3/4/03 and 5/1/03 divided over 2-month period.

SOUTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

A total of 10.0 MG of water was extracted from the Southern Subunit C treatment system during April 2003. The system operated 30 out of a possible 30 days. The April inlet sample contained TCE at 7.0µg/L (4/11/03) yielding a calculated mass removal for TCE during April of 0.58 lbs. Total mass removed to date by the Southern Subunit C system is 156.67lbs. The TCE result was <1.0 µg/L in the sample collected between the carbon vessels.

The table below shows the carbon change out history for the Southern Subunit C system:

Vessel Flow Configuration*	Operational Dates	Time to Detect TCE >5 µg/l**	Time Before Required Change out
A/B	Startup (10/94) –6/95	6 months	8 months
A'/B	6/95 – 12/95	3 months	6 months
A''/B	12/95 – 10/96	8 months	10 months
B/A''	10/96-1/22/97	1 month	3 months
A''/B'	1/22/97-10/30/97	9 months	10 months
B'/A'''	10/31/97 – 6/22/98	7 months	8 months
A'''/B''	6/22/98 – 8/25/99	12 months	14 months
B'''/A'''	8/25/99 – 10/4/00	13 months	13 months
A''''/B'''	10/4/00- 10/17/01	12 months	12 months
B''''/A''''	10/17/01- 1/16/03	14 months	14 months
A'''''/B'''''	1/16/03 - present	> 2 month	to be determined

* Vessel contents A - virgin coal based carbon
B - virgin coal based carbon
A' - on site regenerated coal based carbon
A''- coconut based carbon (applies to A''', A'''')
B' - coconut based carbon (applies to B'', B''', and B'''')
** The detection limit is 1 µg/L; the action level is 5 µg/L detected between the vessels; detection at this level initiates the planning process for the next change out. Time is presented in months after change out.

Production for the Southern Subunit C system in April 2003 is as follows:

Extraction Wells	Production (MG)	Average Rate(gpm)	Days On/Avg.Rate (days/gpm)
E-201	5.8	134.3	30/134.3
E-202	4.2	97.2	30/97.2
E-203	WELL REMOVED FROM SERVICE		
Totals	**10.0**	**231.5**	**30/231.5**
Injection Wells	**Production (MG)**	**Average Rate(gpm)**	**Days On/Avg.Rate (days/gpm)**
I-201	4.0	92.6	30/92.6
I-202	3.6	83.3	30/83.3
I-203	1.9	44.0	30/44.0
Totals	**9.5**	**219.9**	**30/219.9**

SUBUNIT A TREATMENT SYSTEM OPERATION

A total of 19.4 MG of water was treated at the Subunit A system in April 2003. The Subunit A extraction system operated at an uptime rate of 476 gpm for 28.3 of 30 days this month.

The treatment system influent sample contained TCE at a concentration of 85.9 µg/L (4/11/03) yielding a calculated mass removal of 13.91 lbs for the month of April. The cumulative total TCE

mass removed by the Subunit A treatment system to date is 4,599.89 lbs. The TCE result in the effluent sample taken from the air stripper tower at the Subunit A Treatment System was <1.0 µg/L.

The Subunit A system was offline for 1.3 days in April due to power failures and a scheduled outage during an upgrade to the power supply by APS.

Production for the Subunit A system in April 2003 is as follows:

Extraction Wells	Production (MG)	Average Rate (gpm)	On time Days/Rate (gpm)
Total Extracted	**19.4**	**449.1**	**28.3/476.1**
Total Injected	**18.6**	**430.6**	**28.3/456.4**

- The differences between total extracted and total injection is due to evaporation across the air stripper and meter variances

Performance Measurement Tracking Log
Project Manager Input Form

PERIOD COVERED: April 2003
DATE DUE: May 15, 2003

ADMINISTRATIVE INFORMATION:

1. Main Site Code: **41-0000-02**
1a. Facility Site Code:
2. Site Name **Phoenix Goodyear Airport (south)**
3. Project Manager: **Nancy Lou Minkler**
4. Funding Type: **CERCLA- consent decree required**

Technical Information

5. DEQ Site Visits (RPM & Hydro)	0	6. Meetings w/Ips	0
7. Public Meetings Held	0	8. Fact Sheets on a site	
9. Water Samples Taken (DEQ/EPA)	30	10. Water Samples Taken (IP)	
11. Soil/Soil Gas Samples Taken (DEQ/EPA)		12. Soil/Soil Gas Samples Taken (IP)	0
13. Air Samples Taken (DEQ/EPA)	0	14. Air Sample Taken (IP)	0
15. Groundwater Wells Installed (DEQ) Date Installed ___/___/___		16. Groundwater Wells Installed (IP)	0
17. Soil Vapor Wells Installed (DEQ) Date Installed ___/___/___	0	18. Soil Vapor Wells Installed (IP) Date Installed ___/___/___	0
19. Abandoned Groundwater Wells Date Abandoned ___/___/___	0	20. Abandoned Other Wells Date Abandoned ___/___/___	0
21. Remedial Investigation (started) overall area and/or facilities (see comments).	0	22. Remedial Investigations (completed)	0
23. Date Risk Assessment Completed	0	24. Date Feasibility Study Underway ___/___/___	0
25. Date Feasibility Study Went Underway	0	26. Remedial Design 10% 30% 60%	100%
27. Construction Start Date ___/___/___	0	28. Technology Used: pump and treat for water (air stripper Subunit A/GAC for Subunit C), SVE for Soil	
29. Treatment Plant Start Date 12/89 Subunit A; 2/94 North Subunit C; 10/94 South Subunit C		30. Date Remedial Action Completed ___/___/___	
31. Gallons Water Treated (VOCs) Subunit A 19,400,000 Southern Subunit C 10,00,000 Northern Subunit C 5,500,000		32. Hazardous Substance Removed (VOCs) in GW Treatment	14.60
33. Gallons Water Treated (metals)	0	34. Hazardous Substance Removed (metals)	0
35. Gallons Water Treated (other)	0	36. Hazardous Substance Removed (other)	0 lbs
37. Tons Soil Treated On-Site 0 (tons) 1 cy = 1 ton	0	38. Tons Soil Taken Off-site	0 (tons)
39. Acres Remediated		40. End Use of Water - (reinjection)	
41. Estimated reject Completion Date		42. Actual Completion Date ___/___/___	

SHARP Environmental Engineers and Scientists
AND ASSOCIATES, INC.

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June 15, 2003

Ms. Nancy Lou Minkler
Remedial Project Manager
Arizona Department of Environmental Quality
3033 North Central Avenue
Phoenix, AZ 85012

Subject: Transmittal of May 2003, Monthly Progress Report
Phoenix-Goodyear Airport (PGA) South Site, Goodyear, Arizona

Dear Ms. Minkler:

Attached is the monthly progress report for May 2003, for the PGA South Site in Goodyear, Arizona. This report is being submitted on behalf of The Goodyear Tire & Rubber Company (GTRC) to fulfill the reporting requirements outlined in the Consent Decree. Activities conducted this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- meeting with the off-site landowner (Peacock) regarding extending access to four monitoring wells (GMW-14UC, 15UC, 16UC, and 17UC) (May 14, 2003);
- completing a lease agreement with the off-site landowner (Kohnen) to allow installation of extraction well E-102;
- commencing drilling of extraction well E-102; and
- soliciting bids for abandonment of wells in the infield and the former Goodyear Farms irrigation well.

If you have any questions, please feel free to call me at (614) 841-4650.

Sincerely,

SHARP AND ASSOCIATES, INC.

Todd Struttmann, P.E.
Principal

cc: J. Sussman, Goodyear Tire & Rubber Company

J. Sickles, USEPA
S. Reif, Arizona Department of Water Resources
M. Sarmiento, BEW Systems, Inc.
R. Bartholomew, Bartholomew Engineering

TO:	Nancy Lou Minkler, Remedial Project Manager Arizona Department of Environmental Quality (ADEQ)
FROM:	Jeff Sussman, Project Manager The Goodyear Tire & Rubber Company (GTRC)
SUBJECT:	May 2003 Monthly Progress Report, Phoenix-Goodyear Airport (PGA) Site in Goodyear, Arizona
DATE:	June 15, 2003

CURRENT ACTIVITIES

This monthly report describes PGA site activities conducted during May 2003. Notable activities are described below or detailed in the sections that follow. Activities this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- meeting with the off-site landowner (Peacock) regarding extending access to four monitoring wells (GMW-14UC, 15UC, 16UC, and 17UC) (May 14, 2003);
- completing a lease agreement with the off-site landowner (Kohnen) to allow installation of extraction well E-102;
- commencing drilling of extraction well E-102; and
- soliciting bids for abandonment of wells in the infield and the former Goodyear Farms irrigation well.

Trichloroethene (TCE) was detected in well COG#11 on December 19, 1997. GTRC agreed to continue sampling the well on a monthly basis until the Northern Subunit C delineation is complete and an extraction system in place. The sample collected from COG #11 on May 14, 2003, resulted in a non-detect at <1.0 µg/L for TCE.

OUTSTANDING ISSUES/RESOLUTIONS

To complete the extraction well network for capture of the Northern Subunit C plume, an additional extraction is required well (E-102) north of Yuma Road. A lease agreement with the landowner (Kohnen) was executed in May 2003. Drilling for E-102 began on May 22, 2003.

The private access agreement for four monitoring wells that provide for monitoring of the the Northern Subunit C plume expires on June 23, 2003. GTRC, ADEQ, USEPA and SHARP met with the landowners (Peacock) on May 14, 2003 to review the proposal to extend access for 12 additional years. A letter from the attorney representing the off-site owners was received by Goodyear indicating that Mr. Peacock was not available until June 16.

PLANS FOR THE NEXT MONTH

Plans for June 2003 include:

- continuing operation of the Subunit A treatment system, the Northern Subunit C treatment system, and the Southern Subunit C treatment system;
- submitting Notice of Intent to Abandon (NOIA) requests to Arizona Department of Water Resources (ADWR) for wells E-101, I-101, I-102, INJSB#1, INJSB#2, Goodyear Farm irrigation well, and air sparging wells ASI-1, ASI-2 and ASI-3 (June 9, 2003); and
- completion of drilling of extraction well E-102.

CHROMIUM MANAGEMENT APPROACH

As part of the chromium management approach, well E-17 was placed on-line without chrome treatment on June 18, 2001. Key wells are sampled monthly and the balance quarterly. The analytical results for the last six months are presented in the table below.

Extraction Well	11/6/02 CRT* (mg/L)	12/12/02 CRT* (mg/L)	1/14/03 CRT* (mg/L)	2/18/03 CRT* (mg/L)	3/13/03 CRT* (mg/L)	4/11/03 CRT* (mg/L)	5/15/03 CRT* (mg/L)
NE-1	NA	NA	0.065	NA	NA	0.059	NA
NE-2	NA	NA	0.012	NA	NA	0.014	NA
NE-3	NA	NA	0.023	NA	NA	0.009	NA
NE-4	NA	NA	0.028	NA	NA	0.024	NA
NE-5	NA	NA	0.120	NA	NA	0.090	NA
E-07R	0.340	0.246	0.275	0.252	0.222	0.186	0.216
E-08	NA	NA	0.042	NA	NA	0.051	NA
E-10	NA	NA	0.006	NA	NA	<0.005	NA
E-11	NA	NA	0.031	NA	NA	0.028	NA
E-12	0.265	0.189	0.222	0.200	0.174	0.171	0.237
E-16	NA	NA	NS	NS	NS	NS	NA
E-17	NA	NA	NS	NS	NS	NS	0.168
Air stripper Effluent predicted (a)	0.092	0.770	0.080	0.068	0.069	0.061	0.078
Air stripper Effluent actual	0.087	0.073	0.089	0.082	0.070	0.068	0.079

*CRT – total chromium results by method EPA 200.7. All the samples were digested prior to analysis as required by the method.
NS – not sampled due to well off line.
NA – not analyzed as per sampling program.
(a)– the predicted effluent concentration is based on a mass weighted average from the individual extraction wells.

On December 20, 2002, ADEQ provided acceptance of GTRC's proposal for demolition of the chromium system. Following approval of the demolition plan by GTRC, dismantling of the chrome system was completed in April 2003. The final rolloff containers with non-hazardous construction debris were disposed of in June 2003.

NORTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

Operation of the Northern Subunit C system continued during May 2003. A total of 7.7 million gallons (MG) of water was extracted. The system operated 31 out of 31 days in May. The treatment system influent sample contained TCE at a concentration of 2.7 µg/L (5/14/03) yielding a calculated

:s removal this month of 0.17 lbs. Total mass removed to date by the system is 21.13 lbs. TCE detected in the sample collected between the carbon vessels at 1.6 µg/L.

luction for May 2003 was as follows:

s :tion Wells	Production (MG)	Average Rate (gpm)	Days On/Uptime Rate (days/gpm)
	*	*	*
	*	*	*
l Injected	*	*	*
action wells			
l	2.8	62.7	**31/62.7**
#2 **	4.9	109.8	**31/109.8**
l Extracted	7.7	**172.5**	

:ction well flow meter not operating correctly and is reporting erroneous data
tal flow based on data as reported by Lockheed Martin reported on 6/2/03. Flow for period between 5/1/03 and 6/2/03

JTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

tal of 10.1 MG of water was extracted from the Southern Subunit C treatment system during May ;. The system operated 31 out of a possible 31 days. The May inlet sample contained TCE at 5.9 . (5/14/03) yielding a calculated mass removal for TCE during May of 0.50 lbs. Total mass ›ved to date by the Southern Subunit C system is 157.17 lbs. The TCE result was <1.0 µg/L in the ›le collected between the carbon vessels.

table below shows the carbon change out history for the Southern Subunit C system:

Vessel Flow Configuration*	Operational Dates	Time to Detect TCE >5 µg/l**	Time Before Required Change out
A/B	Startup (10/94) –6/95	6 months	8 months
A'/B	6/95 – 12/95	3 months	6 months
A''/B	12/95 – 10/96	8 months	10 months
B/A''	10/96-1/22/97	1 month	3 months
A''/B'	1/22/97-10/30/97	9 months	10 months
B'/A'''	10/31/97 – 6/22/98	7 months	8 months
A'''/B''	6/22/98 – 8/25/99	12 months	14 months
B'''/A'''	8/25/99 – 10/4/00	13 months	13 months
A''''/B'''	10/4/00- 10/17/01	12 months	12 months
B''''/A''''	10/17/01- 1/16/03	14 months	14 months
A'''''/B'''''	1/16/03 - present	> 4 month	to be determined

:l contents A - virgin coal based carbon
gin coal based carbon
ı site regenerated coal based carbon
›conut based carbon (applies to A''', A'''')
conut based carbon (applies to B'', B''', and B'''')
detection limit is 1 µg/L; the action level is 5 µg/L detected between the vessels, detection at this level initiates the planning ; for the next change out. Time is presented in months after change out

›duction for the Southern Subunit C system in May 2003 is as follows:

tion	Production (MG)	Average Rate(gpm)	Days On/Avg.Rate (days/gpm)
	5.9	132.2	31/132.2
	4.2	94.1	31/94.1
	WELL REMOVED FROM SERVICE		
	10.1	**22.63**	**31/226.3**
on	**Production (MG)**	**Average Rate(gpm)**	**Days On/Avg.Rate (days/gpm)**
	4.1	91.8	31/91.8
	3.6	80.6	31/80.6
	2.0	44.8	31/44.8
	9.8	**219.5**	**31/219.5**

BUNIT A TREATMENT SYSTEM OPERATION

otal of 22.1 MG of water was treated at the Subunit A system in May 2003. The Subunit A -action system operated at an uptime rate of 495.1 gpm for 31 of 31 days this month.

: treatment system influent sample contained TCE at a concentration of 88.0 µg/L (5/15/03) ding a calculated mass removal of 16.24 lbs for the month of May. The cumulative total TCE ;s removed by the Subunit A treatment system to date is 4,616.13 lbs. The TCE result in the uent sample taken from the air stripper tower at the Subunit A Treatment System was <1.0 µg/L.

duction for the Subunit A system in May 2003 is as follows:

raction lls	Production (MG)	Average Rate (gpm)	On time Days/Rate (gpm)
al Extracted	**22.1**	**495.1**	**31/495.1**
al Injected	**21.2**	**474.9**	**31/474.9**

The differences between total extracted and total injection is due to evaporation across the air stripper and meter variances.

SHARP Environmental Engineers and Scientists
AND ASSOCIATES, INC.

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Fax (614) 841-4660

July 15, 2003

Ms. Nancy Lou Sandoval
Remedial Project Manager
Arizona Department of Environmental Quality
3033 North Central Avenue
Phoenix, AZ 85012

Subject: Transmittal of June 2003, Monthly Progress Report
Phoenix-Goodyear Airport (PGA) South Site, Goodyear, Arizona

Dear Ms. Minkler:

Attached is the monthly progress report for June 2003, for the PGA South Site in Goodyear, Arizona. This report is being submitted on behalf of The Goodyear Tire & Rubber Company (GTRC) to fulfill the reporting requirements outlined in the Consent Decree. Activities conducted this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- submitting Notice of Intent to Abandon (NOIA) requests to Arizona Department of Water Resources (ADWR) for wells E-101, I-101, I-102, INJSB#1, INJSB#2, Goodyear farms irrigation well, and air sparging wells ASI-1, ASI-2 and ASI-3 (June 9th);
- completing drilling, installation and testing of extraction well E-102; and
- soliciting bids for abandonment of wells in the infield and the former Goodyear farms well.

If you have any questions, please feel free to call me at (614) 841-4650.

Sincerely,

SHARP AND ASSOCIATES, INC.

Todd Struttmann, P.E.
Principal

cc: J. Sussman, Goodyear Tire & Rubber Company
J. Sickles, USEPA
S. Reif, Arizona Department of Water Resources

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M. Sarmiento, BEW Systems, Inc.
R. Bartholomew, Bartholomew Engineering

TO:	Nancy Lou Sandoval, Remedial Project Manager Arizona Department of Environmental Quality (ADEQ)
FROM:	Jeff Sussman, Project Manager The Goodyear Tire & Rubber Company (GTRC)
SUBJECT:	June 2003 Monthly Progress Report, Phoenix-Goodyear Airport (PGA) Site in Goodyear, Arizona
DATE:	July 15, 2003

CURRENT ACTIVITIES

This monthly report describes PGA site activities conducted during June 2003. Notable activities are described below or detailed in the sections that follow. Activities this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- submitting Notice of Intent to Abandon (NOIA) requests to Arizona Department of Water Resources (ADWR) for wells E-101, I-101, I-102, INJSB#1, INJSB#2, Goodyear farms irrigation well, and air sparging wells ASI-1, ASI-2 and ASI-3 (June 9th);
- completing drilling, installation and testing of extraction well E-102; and
- soliciting bids for abandonment of wells in the infield and the former Goodyear farms well.

Trichloroethene (TCE) was detected in well COG#11 on December 19, 1997. GTRC agreed to continue sampling the well on a monthly basis until the Northern Subunit C delineation is complete and an extraction system in place. The sample collected from COG #11 on June 13, 2003, resulted in a non-detect at <1.0 µg/L for TCE.

OUTSTANDING ISSUES/RESOLUTIONS

The private access agreement for four monitoring wells that make up the Northern Subunit C plume expired on June 23, 2003. GTRC, ADEQ, USEPA and SHARP met with the landowners (Peacock) on May 14, 2003 to review the proposal to extend access for 12 additional years. Quarterly samples from these wells were collected in early June. Negotiation with the landowner for access is ongoing.

PLANS FOR THE NEXT MONTH

Plans for July 2003 include:

- continuing operation of the Subunit A treatment system, the Northern Subunit C treatment system, and the Southern Subunit C treatment system;
- collecting the quarterly and semi-annual monitoring well sampling;
- completing the design of the new vault for I-203 to accommodate the City of Phoenix taxiway expansion;
- awarding subcontract for well abandonment;
- scheduling for abandonment of wells in the infield (INJSB#1, INJSB#2, ASI-1, ASI-2, ASI-3) following ADWR approval of the NOIA;
- preparing the first semi-annual 2003 monitoring report for submission in mid August;
- submitting a geologic log and completion log for well E-102; and

- meeting with City of Phoenix, ADEQ, USEPA, GTRC and SHARP to discuss piping of well E-102 (July 15th).

CHROMIUM MANAGEMENT APPROACH

As part of the chromium management approach, well E-17 was placed on-line without chrome treatment on June 18, 2001. Key wells are sampled monthly and the balance quarterly. The analytical results for the last six months are presented in the table below.

Extraction Well	12/12/02 CRT* (mg/L)	1/14/03 CRT* (mg/L)	2/18/03 CRT* (mg/L)	3/13/03 CRT* (mg/L)	4/11/03 CRT* (mg/L)	5/15/03 CRT* (mg/L)	6/16/03 CRT* (mg/L)
NE-1	NA	0.065	NA	NA	0.059	NA	NA
NE-2	NA	0.012	NA	NA	0.014	NA	NA
NE-3	NA	0.023	NA	NA	0.009	NA	NA
NE-4	NA	0.028	NA	NA	0.024	NA	NA
NE-5	NA	0.120	NA	NA	0.090	NA	NA
E-07R	0.246	0.275	0.252	0.222	0.186	0.216	0.234
E-08	NA	0.042	NA	NA	0.051	NA	NA
E-10	NA	0.006	NA	NA	<0.005	NA	NA
E-11	NA	0.031	NA	NA	0.028	NA	NA
E-12	0.189	0.222	0.200	0.174	0.171	0.237	0.190
E-16	NA	NS	NS	NS	NS	NA	NA
E-17	NA	NS	NS	NS	NS	0.168	0.153
Air stripper Effluent predicted (a)	0.770	0.080	0.068	0.069	0.061	0.078	0.074
Air stripper Effluent actual	0.073	0.089	0.082	0.070	0.068	0.079	0.080

*CRT – total chromium results by method EPA 200.7. All the samples were digested prior to analysis as required by the method.
NS – not sampled due to well off line.
NA – not analyzed as per sampling program.
(a)– the predicted effluent concentration is based on a mass weighted average from the individual extraction wells.

On December 20, 2002, ADEQ provided acceptance of GTRC's proposal for demolition of the chromium system. Following approval of the demolition plan by GTRC, dismantling of the chrome system was completed in April 2003. The final rolloff containers with non hazardous construction debris were disposed of in June 2003.

NORTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

Operation of the Northern Subunit C system continued during June 2003. A total of 10.3 million gallons (MG) of water was extracted. The system operated 30 out of 30 days in June. The treatment system influent sample contained TCE at a concentration of 4.8 µg/L (6/16/03) yielding a calculated

mass removal this month of 0.41 lbs. Total mass removed to date by the system is 21.54 lbs. TCE was detected in the sample collected between the carbon vessels at 1.8 µg/L.

Production for June 2003 was as follows:

Wells Injection Wells	Production (MG)	Average Rate (gpm)	Days On/Uptime Rate (days/gpm)
I-101	*	*	*
I-102	*	*	*
Total Injected	*	*	*
Extraction wells			
E-101	2.6	60.2	**30/60.2**
GAC#2 **	7.7	232.5	**23/232.5**
Total Extracted	**10.3**		

* Injection well flow meter not operating correctly and is reporting erroneous data

** Total flow based on data as reported by Lockheed Martin reported on 7/1/03. Flow for period between 6/2/03 and 7/1/03. Well offline on 6/25/03 for unspecified reasons.

SOUTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

A total of 9.5 MG of water was extracted from the Southern Subunit C treatment system during June 2003. The system operated 30 out of a possible 30 days. The June inlet sample contained TCE at 7.6 µg/L (6/13/03) yielding a calculated mass removal for TCE during June of 0.60 lbs. Total mass removed to date by the Southern Subunit C system is 157.77 lbs. The TCE result was <1.0 µg/L in the sample collected between the carbon vessels.

The table below shows the carbon change out history for the Southern Subunit C system:

Vessel Flow Configuration*	Operational Dates	Time to Detect TCE >5 µg/l**	Time Before Required Change out
A/B	Startup (10/94) –6/95	6 months	8 months
A'/B	6/95 – 12/95	3 months	6 months
A''/B	12/95 – 10/96	8 months	10 months
B/A''	10/96-1/22/97	1 month	3 months
A''/B'	1/22/97-10/30/97	9 months	10 months
B'/A'''	10/31/97 – 6/22/98	7 months	8 months
A'''/B''	6/22/98 – 8/25/99	12 months	14 months
B'''/A'''	8/25/99 – 10/4/00	13 months	13 months
A''''/B'''	10/4/00- 10/17/01	12 months	12 months
B''''/A''''	10/17/01- 1/16/03	14 months	14 months
A'''''/B'''''	1/16/03 - present	> 5 month	to be determined

* Vessel contents A - virgin coal based carbon
B - virgin coal based carbon
A' - on site regenerated coal based carbon
A''- coconut based carbon (applies to A''', A'''')
B' - coconut based carbon (applies to B'', B''', and B'''')
** The detection limit is 1 µg/L; the action level is 5 µg/L detected between the vessels; detection at this level initiates the planning process for the next change out. Time is presented in months after change out

Production for the Southern Subunit C system in June 2003 is as follows:

Extraction Wells	Production (MG)	Average Rate(gpm)	Days On/Avg.Rate (days/gpm)
E-201	5.6	129.6	30/129.6
E-202	3.9	90.3	30/90.3
E-203	WELL REMOVED FROM SERVICE		
Totals	**9.5**	**219.9**	**30/219.9**
Injection Wells	**Production (MG)**	**Average Rate(gpm)**	**Days On/Avg.Rate (days/gpm)**
I-201	4.8	111.1	30/111.1
I-202	3.8	88.0	30/88.0
I-203	1.9	44.0	30/44.0
Totals	**10.5**	**243.1**	**30/243.1**

SUBUNIT A TREATMENT SYSTEM OPERATION

A total of 20.7 MG of water was treated at the Subunit A system in June 2003. The Subunit A extraction system operated at an uptime rate of 479.2 gpm for 29 of 30 days this month.

The Subunit A treatment system was offline for 1 day during June due to failure of the control room air conditioner and a temporary power outage.

The treatment system influent sample contained TCE at a concentration of 94.2 µg/L (6/16/03) yielding a calculated mass removal of 16.28 lbs for the month of June. The cumulative total TCE mass removed by the Subunit A treatment system to date is 4,632.41 lbs. The TCE result in the effluent sample taken from the air stripper tower at the Subunit A Treatment System was <1.0 µg/L.

Production for the Subunit A system in June 2003 is as follows:

Extraction Wells	Production (MG)	Average Rate (gpm)	On time Days/Rate (gpm)
Total Extracted	**20.7**	**479.2**	**30/479.2**
Total Injected	**19.8**	**458.3**	**30/458.3**

- The differences between total extracted and total injection is due to evaporation across the air stripper and meter variances.

Performance Measurement Tracking Log
Project Manager Input Form

PERIOD COVERED: June 2003
DATE DUE: June 15, 2003

ADMINISTRATIVE INFORMATION:

1. Main Site Code: **41-0000-02**
1a. Facility Site Code:
2. Site Name **Phoenix Goodyear Airport (south)**
3. Project Manager: **Nancy Lou Minkler**
4. Funding Type: **CERCLA- consent decree required**

Technical Information

5. DEQ Site Visits (RPM & Hydro)	0	6. Meetings w/Ips	0
7. Public Meetings Held	0	8. Fact Sheets on a site	
9. Water Samples Taken (DEQ/EPA)	30	10. Water Samples Taken (IP)	
11. Soil/Soil Gas Samples Taken (DEQ/EPA)		12. Soil/Soil Gas Samples Taken (IP)	0
13. Air Samples Taken (DEQ/EPA)	0	14. Air Sample Taken (IP)	0
15. Groundwater Wells Installed (DEQ) Date Installed ___/___/___		16. Groundwater Wells Installed (IP)	0
17. Soil Vapor Wells Installed (DEQ) Date Installed ___/___/___	0	18. Soil Vapor Wells Installed (IP) Date Installed ___/___/___	0
19. Abandoned Groundwater Wells Date Abandoned ___/___/____	0	20. Abandoned Other Wells Date Abandoned ___/___/___	0
21. Remedial Investigation (started) overall area and/or facilities (see comments).	0	22. Remedial Investigations (completed)	0
23. Date Risk Assessment Completed	0	24. Date Feasibility Study Underway ___/___/___	0
25. Date Feasibility Study Went Underway	0	26. Remedial Design 10% 30% 60%	100%
27. Construction Start Date ___/___/___	0	28. Technology Used: pump and treat for water (air stripper Subunit A/GAC for Subunit C), SVE for Soil	
29. Treatment Plant Start Date 12/89 Subunit A; 2/94 North Subunit C; 10/94 South Subunit C		30. Date Remedial Action Completed ___/___/___	
31. Gallons Water Treated (VOCs) Subunit A 20,700,000 Southern Subunit C 9,500,000 Northern Subunit C 10,300,000		32. Hazardous Substance Removed (VOCs) in GW Treatment	17.29
33. Gallons Water Treated (metals)	0	34. Hazardous Substance Removed (metals)	0
35. Gallons Water Treated (other)	0	36. Hazardous Substance Removed (other)	0 lbs
37. Tons Soil Treated On-Site 0 (tons) 1 cy = 1 ton	0	38. Tons Soil Taken Off-site	0 (tons)
39. Acres Remediated		40. End Use of Water - (reinjection)	
41. Estimated reject Completion Date		42. Actual Completion Date ___/___/___	

SHARP AND ASSOCIATES, INC.
Environmental Engineers, Scientists, and Contractors

982 Crupper Avenue
Columbus, Ohio 43229
(614) 841-4650
FAX: (614) 841-4660

August 19, 2003

Ms. Nancy Lou Sandoval
Remedial Project Manager
Arizona Department of Environmental Quality
1110 West Washington
Phoenix, AZ 85007

Subject: Transmittal of July 2003, Monthly Progress Report
Phoenix-Goodyear Airport (PGA) South Site, Goodyear, Arizona

Dear Ms. Sandoval:

Attached is the monthly progress report for July 2003, for the PGA South Site in Goodyear, Arizona. This report is being submitted on behalf of The Goodyear Tire & Rubber Company (GTRC) to fulfill the reporting requirements outlined in the Consent Decree. Activities conducted this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- plugging and abandoning wells E-101, I-101, I-102, INJSB#1, INJSB#2, and air sparging wells ASI-1, ASI-2 and ASI-3;
- compiling the semi-annual monitoring report for submission to ADEQ in mid August.;
- meeting with ADEQ, USEPA and City of Phoenix (COP) July 15th to discuss the pipeline routing for E-102;
- meeting with COP July 16th to discuss the final specifications for the taxiway expansion (this expansion requires a redesign of the structure that contains injection well I-203); and
- preparing specifications for surveying associated with the design of the piping for E-102.

If you have any questions, please feel free to call me at (614) 841-4650.

Sincerely,

SHARP AND ASSOCIATES, INC.

Todd Struttmann, P.E.
Principal

cc: J. Sussman, Goodyear Tire & Rubber Company
J. Sickles, USEPA
S. Reif, Arizona Department of Water Resources
M Sarmiento, BEW Systems, Inc.
R. Bartholomew, Bartholomew Engineering

TO:	Nancy Lou Sandoval, Remedial Project Manager Arizona Department of Environmental Quality (ADEQ)
FROM	Jeff Sussman, Project Manager The Goodyear Tire & Rubber Company (GTRC)
SUBJECT:	July 2003 Monthly Progress Report, Phoenix-Goodyear Airport (PGA) South Site in Goodyear, Arizona
DATE:	August 15, 2003

CURRENT ACTIVITIES

This monthly report describes PGA site activities conducted during July 2003. Notable activities are described below or detailed in the sections that follow. Activities this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- plugging and abandoning wells E-101, I-101, I-102, INJSB#1, INJSB#2, and air sparging wells ASI-1, ASI-2 and ASI-3;
- compiling the semi-annual monitoring report for submission to ADEQ in mid August.;
- meeting with ADEQ, USEPA and City of Phoenix (COP) July 15th to discuss the pipeline routing for E-102;
- meeting with COP July 16th to discuss the final specifications for the taxiway expansion (this expansion requires a redesign of the structure that contains injection well I-203); and
- preparing specifications and request for proposal for surveying associated with the design of the piping for E-102.

Trichloroethene (TCE) was detected in well COG#11 on December 19, 1997. GTRC agreed to continue sampling the well on a monthly basis until the Northern Subunit C delineation is complete and an extraction system in place. The sample collected from COG #11 on July 9, 2003, resulted in a non-detect at <1.0 µg/L for TCE.

OUTSTANDING ISSUES/RESOLUTIONS

The private access agreement for four monitoring wells that make up the Northern Subunit C plume expired on June 23, 2003. GTRC, ADEQ, USEPA and SHARP met with the landowners (Peacock) on May 14, 2003 to review the proposal to extend access for 12 additional years. Quarterly samples from these wells were collected in early June. Negotiation with the landowner for access is ongoing.

The owner of the property on which the former Goodyear Farms irrigation well is located has been contacted. GTRC is pursuing access to this property to properly plug and abandon this well. The driller selected for the abandonment work is under contract and will proceed after access from the landowner is obtained.

PLANS FOR THE NEXT MONTH

Plans for August 2003 include:

- continuing operation of the Subunit A treatment system, the Northern Subunit C treatment system, and the Southern Subunit C treatment system;
- collecting the quarterly and semi-annual monitoring well sampling;

- receiving the surveying quotes and awarding the contract for surveying of the pipeline alignment from E-102 to the Southern Subunit C treatment system;
- finalizing the design of the new vault for I-203 to accommodate the City of Phoenix taxiway expansion; and
- submitting the first semi-annual 2003 monitoring report for submission in mid August.

CHROMIUM MANAGEMENT APPROACH

As part of the chromium management approach, well E-17 was placed on-line without chrome treatment on June 18, 2001. Key wells are sampled monthly and the balance quarterly. The analytical results for the last six months are presented in the table below.

Extraction Well	2/18/03 CRT* (mg/L)	3/13/03 CRT* (mg/L)	4/11/03 CRT* (mg/L)	5/15/03 CRT* (mg/L)	6/16/03 CRT* (mg/L)	7/10/03 CRT* (mg/L
NE-1	NA	NA	0.059	NA	NA	0.062
NE-2	NA	NA	0.014	NA	NA	0.011
NE-3	NA	NA	0.009	NA	NA	0.010
NE-4	NA	NA	0.024	NA	NA	0.027
NE-5	NA	NA	0.090	NA	NA	0.095
E-07R	0.252	0.222	0.186	0.216	0.234	0.240
E-08	NA	NA	0.051	NA	NA	0.077
E-10	NA	NA	<0.005	NA	NA	0.009
E-11	NA	NA	0.028	NA	NA	0.032
E-12	0.200	0.174	0.171	0.237	0.190	0.207
E-16	NS	NS	NS	NS	NS	NS
E-17	NS	NS	NS	0.168	0.153	0.140
Air stripper Effluent predicted (a)	0.068	0.069	0.061	0.078	0.074	0.083
Air stripper Effluent actual	0.082	0.070	0.068	0.079	0.080	0.075

*CRT – total chromium results by method EPA 200.7. All the samples were digested prior to analysis as required by the method.
NS – not sampled due to well off line.
NA – not analyzed as per sampling program.
(a)– the predicted effluent concentration is based on a mass weighted average from the individual extraction wells.

NORTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

Operation of the Northern Subunit C system continued during July 2003. A total of 3.3 million gallons (MG) of water was extracted. The system operated 30.75 out of 31 days in July. The treatment system influent sample contained TCE at a concentration of 2.7 µg/L (7/9/03) yielding a calculated mass removal this month of 0.07 lbs. Total mass removed to date by the system is 21.61 lbs. TCE was detected in the sample collected between the carbon vessels at 1.6 µg/L.

The Northern Subunit C system was offline for approximately 0.25 days in July due to a storm related power failure and when the E-101 extraction well was inadvertently turned off via remote telemetry while collecting weekly operations data from SHARP's Columbus, Ohio office.

Production for July 2003 was as follows:

Wells Injection Wells	Production (MG)	Average Rate (gpm)	Days On/Uptime Rate (days/gpm)
I-101	*	*	*
I-102	*	*	*
Total Injected	*	*	*
Extraction wells			
E-101	3.3	73.9	**30.75/74.5**
GAC#2 **	0	0	**0/0**
Total Extracted	**3.3**		

* Injection well flow meter not operating correctly and is reporting erroneous data

** Total flow based on data as reported by Lockheed Martin reported on 8/4/03. Well offline on 6/25/03 for unspecified reasons

SOUTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

A total of 9.6 MG of water was extracted from the Southern Subunit C treatment system during July 2003. The system operated 31 out of a possible 31 days. The July inlet sample contained TCE at 6.6 µg/L (7/9/03) yielding a calculated mass removal for TCE during July of 0.53 lbs. Total mass removed to date by the Southern Subunit C system is 158.30 lbs. The TCE result was <1.0 µg/L in the sample collected between the carbon vessels.

The Southern Subunit C system was offline for 3.5 hrs in July due to a storm related power outage.

The table below shows the carbon change out history for the Southern Subunit C system:

Vessel Flow Configuration*	Operational Dates	Time to Detect TCE >5 µg/l**	Time Before Required Change out
A/B	Startup (10/94) – 6/95	6 months	8 months
A'/B	6/95 – 12/95	3 months	6 months
A''/B	12/95 – 10/96	8 months	10 months
B/A''	10/96-1/22/97	1 month	3 months
A''/B'	1/22/97-10/30/97	9 months	10 months
B'/A'''	10/31/97 – 6/22/98	7 months	8 months
A'''/B''	6/22/98 – 8/25/99	12 months	14 months
B'''/A'''	8/25/99 – 10/4/00	13 months	13 months
A''''/B'''	10/4/00- 10/17/01	12 months	12 months
B''''/A''''	10/17/01- 1/16/03	14 months	14 months
A'''''/B'''''	1/16/03 - present	> 6 month	to be determined

* Vessel contents A - virgin coal based carbon
B - virgin coal based carbon
A' - on site regenerated coal based carbon
A''- coconut based carbon (applies to A''', A'''', A''''')
B' - coconut based carbon (applies to B'', B''', B'''', and B''''')
** The detection limit is 1 µg/L; the action level is 5 µg/L detected between the vessels; detection at this level initiates the planning process for the next change out. Time is presented in months after change out

Production for the Southern Subunit C system in July 2003 is as follows:

Extraction Wells	Production (MG)	Average Rate(gpm)	Days On/Avg.Rate (days/gpm)
E-201	5.6	125.4	31/125.4
E-202	4.0	89.6	31/89.6
E-203	WELL REMOVED FROM SERVICE		
Totals	**9.6**	**215.1**	**31/215. 1**
Injection Wells	**Production (MG)**	**Average Rate(gpm)**	**Days On/Avg.Rate (days/gpm)**
I-201	5.4	121.0	31/121.0
I-202	4.8	107.5	31/107.5
I-203	1.9	42.6	31/42.6
Totals	**12.1**	**271.1**	**31/271.1**

SUBUNIT A TREATMENT SYSTEM OPERATION

A total of 22.9 MG of water was treated at the Subunit A system in July 2003. The Subunit A extraction system operated at an average uptime rate of 513.0 gpm for 31 of 31 days this month.

The Subunit A treatment system was offline for 3.5 hrs in July due to a storm related power outage.

The treatment system influent sample contained TCE at a concentration of 126.0 µg/L (7/10/03) yielding a calculated mass removal of 24.09 lbs for the month of July. The cumulative total TCE mass removed by the Subunit A treatment system to date is 4,656.50 lbs. The TCE result in the effluent sample taken from the air stripper tower at the Subunit A Treatment System was <1.0 µg/L.

Production for the Subunit A system in July 2003 is as follows:

Extraction Wells	Production (MG)	Average Rate (gpm)	On time Days/Rate (gpm)
Total Extracted	**22.9**	**513.0**	**31/513.0**
Total Injected	**21.9**	**490.6**	**31/490.6**

The differences between total extracted and total injection is due to evaporation across the air stripper and meter variances.

Performance Measurement Tracking Log
Project Manager Input Form

PERIOD COVERED: July 2003
DATE DUE: August 15, 2003

ADMINISTRATIVE INFORMATION:

1. Main Site Code: **41-0000-02**
1a. Facility Site Code:
2. Site Name **Phoenix Goodyear Airport (south)**
3. Project Manager: **Nancy Lou Minkler**
4. Funding Type: **CERCLA- consent decree required**

Technical Information

5. DEQ Site Visits (RPM & Hydro)	0	6. Meetings w/Ips	0
7. Public Meetings Held	0	8. Fact Sheets on a site	
9. Water Samples Taken (DEQ/EPA)	30	10. Water Samples Taken (IP)	
11. Soil/Soil Gas Samples Taken (DEQ/EPA)		12. Soil/Soil Gas Samples Taken (IP)	0
13. Air Samples Taken (DEQ/EPA)	0	14. Air Sample Taken (IP)	0
15. Groundwater Wells Installed (DEQ) Date Installed ___/___/___		16. Groundwater Wells Installed (IP)	0
17. Soil Vapor Wells Installed (DEQ) Date Installed ___/___/___	0	18. Soil Vapor Wells Installed (IP) Date Installed ___/___/___	0
19. Abandoned Groundwater Wells Date Abandoned ___/___/____	0	20. Abandoned Other Wells Date Abandoned ___/___/___	0
21. Remedial Investigation (started) overall area and/or facilities (see comments).	0	22. Remedial Investigations (completed)	0
23. Date Risk Assessment Completed	0	24. Date Feasibility Study Underway ___/___/___	0
25. Date Feasibility Study Went Underway	0	26. Remedial Design 10% 30% 60%	100%
27. Construction Start Date ___/___/___	0	28. Technology Used: pump and treat for water (air stripper Subunit A/GAC for Subunit C), SVE for Soil	
29. Treatment Plant Start Date 12/89 Subunit A; 2/94 North Subunit C; 10/94 South Subunit C		30. Date Remedial Action Completed ___/___/___	
31. Gallons Water Treated (VOCs) Subunit A 22,900,000 Southern Subunit C 9,600,000 Northern Subunit C 3,300,000		32. Hazardous Substance Removed (VOCs) in GW Treatment	24.69
33. Gallons Water Treated (metals)	0	34. Hazardous Substance Removed (metals)	0
35. Gallons Water Treated (other)	0	36. Hazardous Substance Removed (other)	0 lbs
37. Tons Soil Treated On-Site 0 (tons) 1 cy = 1 ton	0	38. Tons Soil Taken Off-site	0 (tons)
39. Acres Remediated		40. End Use of Water - (reinjection)	
41. Estimated reject Completion Date		42. Actual Completion Date ___/___/___	

SHARP Environmental Engineers and Scientists
AND ASSOCIATES, INC.

982 Crupper Avenue
Columbus, Ohio 43229
(614) 841-4650
Fax (614) 841-4660

September 15, 2003

Ms. Nancy Lou Sandoval
Remedial Project Manager
Arizona Department of Environmental Quality
1110 West Washington
Phoenix, AZ 85007

Subject: Transmittal of August 2003, Monthly Progress Report
Phoenix-Goodyear Airport (PGA) South Site, Goodyear, Arizona

Dear Ms. Sandoval:

Attached is the monthly progress report for August 2003, for the PGA South Site in Goodyear, Arizona. This report is being submitted on behalf of The Goodyear Tire & Rubber Company (GTRC) to fulfill the reporting requirements outlined in the Consent Decree. Activities conducted this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- compiling the semi-annual monitoring report for submission to ADEQ in mid August; and
- obtaining bids for surveying associated with the design of the piping for E-102.

If you have any questions, please feel free to call me at (614) 841-4650.

Sincerely,

SHARP AND ASSOCIATES, INC.

Todd Struttmann P.E.

Todd Struttmann, P.E.
Principal

cc: J. Sussman, Goodyear Tire & Rubber Company
J. Sickles, USEPA
S. Reif, Arizona Department of Water Resources
M. Sarmiento, BEM Systems, Inc.
R. Bartholomew, Bartholomew Engineering
D. Stoltzfus, City of Phoenix
C. Parker, City of Phoenix

TO:	Nancy Lou Sandoval, Remedial Project Manager Arizona Department of Environmental Quality (ADEQ)
FROM:	Jeff Sussman, Project Manager The Goodyear Tire & Rubber Company (GTRC)
SUBJECT:	July 2003 Monthly Progress Report, Phoenix-Goodyear Airport (PGA) South Site in Goodyear, Arizona
DATE:	September 15, 2003

CURRENT ACTIVITIES

This monthly report describes PGA site activities conducted during August 2003. Notable activities are described below or detailed in the sections that follow. Activities this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- compiling the semi-annual monitoring report for submission to ADEQ in mid August; and
- obtaining bids for surveying associated with the design of the piping for E-102.

Trichloroethene (TCE) was detected in well COG#11 on December 19, 1997. GTRC agreed to continue sampling the well on a monthly basis until the Northern Subunit C delineation is complete and an extraction system in place. The sample collected from COG #11 on August 15, 2003, resulted in a non-detect at <1.0 µg/L for TCE.

OUTSTANDING ISSUES/RESOLUTIONS

The private access agreement for four monitoring wells that make up the Northern Subunit C plume expired on June 23, 2003. GTRC, ADEQ, USEPA and SHARP met with the landowners (Peacock) on May 14, 2003 to review the proposal to extend access for 12 additional years. Quarterly samples from these wells were collected in early June. Negotiation with the landowner for access is ongoing.

The owner of the property on which the former Goodyear Farms irrigation well is located has been contacted. GTRC is pursuing access to this property to properly plug and abandon this well. The driller selected for the abandonment work is under contract and will proceed after access from the landowner is obtained.

PLANS FOR THE NEXT MONTH

Plans for September 2003 include:

- continuing operation of the Subunit A treatment system, the Northern Subunit C treatment system, and the Southern Subunit C treatment system;
- collecting the quarterly and semi-annual monitoring well sampling;
- receiving the surveying quotes and awarding the contract for surveying of the pipeline alignment from E-102 to the Southern Subunit C treatment system; and
- finalizing the design of the new vault for I-203 to accommodate the City of Phoenix taxiway expansion..

CHROMIUM MANAGEMENT APPROACH

As part of the chromium management approach, well E-17 was placed on-line without chrome treatment on June 18, 2001. Key wells are sampled monthly and the balance quarterly. The analytical results for the last six months are presented in the table below.

Extraction Well	3/13/03 CRT* (mg/L)	4/11/03 CRT* (mg/L)	5/15/03 CRT* (mg/L)	6/16/03 CRT* (mg/L)	7/10/03 CRT* (mg/L)	8/15/03 CRT* (mg/L)
NE-1	NA	0.059	NA	NA	0.062	NA
NE-2	NA	0.014	NA	NA	0.011	NA
NE-3	NA	0.009	NA	NA	0.010	NA
NE-4	NA	0.024	NA	NA	0.027	NA
NE-5	NA	0.090	NA	NA	0.095	NA
E-07R	0.222	0.186	0.216	0.234	0.240	0.240
E-08	NA	0.051	NA	NA	0.077	NA
E-10	NA	<0.005	NA	NA	0.009	NA
E-11	NA	0.028	NA	NA	0.032	NA
E-12	0.174	0.171	0.237	0.190	0.207	0.233
E-16	NS	NS	NS	NS	NS	NS
E-17	NS	NS	0.168	0.153	0.140	0.154
Air stripper Effluent predicted (a)	0.069	0.061	0.078	0.074	0.083	0.091
Air stripper Effluent actual	0.070	0.068	0.079	0.080	0.075	0.101

*CRT – total chromium results by method EPA 200.7. All the samples were digested prior to analysis as required by the method.
NS – not sampled due to well off line.
NA – not analyzed as per sampling program.
(a)– the predicted effluent concentration is based on a mass weighted average from the individual extraction wells.

NORTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

Operation of the Northern Subunit C system continued during August 2003. A total of 3.6 million gallons (MG) of water was extracted. The system operated 31 out of 31 days in August. The treatment system influent sample contained TCE at a concentration of 1.7 µg/L (8/15/03) yielding a calculated mass removal this month of 0.05 lbs. Total mass removed to date by the system is 21.66 lbs. TCE was detected in the sample collected between the carbon vessels at <1.0 µg/L.

The Northern Subunit C system operated for the entire month without outages.

Production for August 2003 was as follows:

Wells Injection Wells	Production (MG)	Average Rate (gpm)	Days On/Uptime Rate (days/gpm)
I-101	*	*	*
I-102	*	*	*
Total Injected	*	*	*
Extraction wells			
E-101	3.6	80.6	**31/80.6**
GAC#2 **	0	0	**0/0**
Total Extracted	**3.6**	**80.6**	**31/80.6**

* Injection well flow meter not operating correctly and is reporting erroneous data

** Total flow based on data as reported by Lockheed Martin reported on 9/2/03. Well offline since 6/25/03 for unspecified reasons.

SOUTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

A total of 9.9 MG of water was extracted from the Southern Subunit C treatment system during August 2003. The system operated 30.75 out of a possible 31 days. The August inlet sample contained TCE at 6.5 µg/L (8/15/03) yielding a calculated mass removal for TCE during August of 0.54 lbs. Total mass removed to date by the Southern Subunit C system is 158.84 lbs. The TCE result was <1.0 µg/L in the sample collected between the carbon vessels.

The Southern Subunit C system was offline for 0.25 days due to a storm related power outage. The table below shows the carbon change out history for the Southern Subunit C system:

Vessel Flow Configuration*	Operational Dates	Time to Detect TCE >5 µg/l**	Time Before Required Change out
A/B	Startup (10/94) – 6/95	6 months	8 months
A'/B	6/95 – 12/95	3 months	6 months
A''/B	12/95 – 10/96	8 months	10 months
B/A''	10/96-1/22/97	1 month	3 months
A''/B'	1/22/97-10/30/97	9 months	10 months
B'/A'''	10/31/97 – 6/22/98	7 months	8 months
A'''/B''	6/22/98 – 8/25/99	12 months	14 months
B'''/A'''	8/25/99 – 10/4/00	13 months	13 months
A''''/B'''	10/4/00- 10/17/01	12 months	12 months
B''''/A''''	10/17/01- 1/16/03	14 months	14 months
A'''''/B'''''	1/16/03 - present	> 7 month	to be determined

* Vessel contents A - virgin coal based carbon

B - virgin coal based carbon

A' - on site regenerated coal based carbon

A''- coconut based carbon (applies to A''', A'''', A''''')

B' - coconut based carbon (applies to B'', B''', B'''', and B''''')

** The detection limit is 1 µg/L; the action level is 5 µg/L detected between the vessels; detection at this level initiates the planning process for the next change out. Time is presented in months after change out

Production for the Southern Subunit C system in August 2003 is as follows:

Extraction Wells	Production (MG)	Average Rate(gpm)	Days On/Avg.Rate (days/gpm)
E-201	5.6	125.4	30.75/126.5
E-202	4.3	96.3	30.75/97.1
E-203	WELL REMOVED FROM SERVICE		
Totals	**9.9**	**221.8**	**30.75/203.3**
Injection Wells	**Production (MG)**	**Average Rate(gpm)**	**Days On/Avg.Rate (days/gpm)**
I-201	5.5	123.2	30.75/124.2
I-202	5.2	116.5	30.75/117.4
I-203	1.8	40.3	30.75/40.7
Totals	**12.5**	**280.0**	**30.75/282.3**

SUBUNIT A TREATMENT SYSTEM OPERATION

A total of 17.5 MG of water was treated at the Subunit A system in August 2003. The Subunit A extraction system operated at an average uptime rate of 403.7 gpm for 30.1 of 31 days this month.

The Subunit A treatment system was offline for 21.5 hrs. during the month of August for routine maintenance of the acid injection system, tightening of the blower belts, storm related outages, and to determine the location of line faults in the power cables between the treatment system and the remote wells (NE-3 and NE-4).

The treatment system influent sample contained TCE at a concentration of 94.6 µg/L (8/15/03) yielding a calculated mass removal of 13.82 lbs for the month of August. The cumulative total TCE mass removed by the Subunit A treatment system to date is 4,670.32 lbs. The TCE result in the effluent sample taken from the air stripper tower at the Subunit A Treatment System was <1.0 µg/L.

Production for the Subunit A system in August 2003 is as follows:

Extraction Wells	Production (MG)	Average Rate (gpm)	On time Days/Rate (gpm)
Total Extracted	**17.5**	**392.0**	**30.1/403.7**
Total Injected	**16.8**	**376.3**	**30..1/387.6**

The differences between total extracted and total injection is due to evaporation across the air stripper and meter variances.

SHARP Environmental Engineers and Scientists
AND ASSOCIATES, INC.
982 Crupper Avenue
Columbus, Ohio 43229
(614) 841-4650
Fax (614) 841-4660

October 15, 2003

Ms. Nancy Lou Sandoval
Remedial Project Manager
Arizona Department of Environmental Quality
1110 West Washington
Phoenix, AZ 85007

Subject: Transmittal of September 2003, Monthly Progress Report
Phoenix-Goodyear Airport (PGA) South Site, Goodyear, Arizona

Dear Ms. Sandoval:

Attached is the monthly progress report for September 2003, for the PGA South Site in Goodyear, Arizona. This report is being submitted on behalf of The Goodyear Tire & Rubber Company (GTRC) to fulfill the reporting requirements outlined in the Consent Decree. Activities conducted this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- conducting surveying associated with the design of the piping for E-102.

If you have any questions, please feel free to call me at (614) 841-4650.

Sincerely,

SHARP AND ASSOCIATES, INC.

Todd Struttmann, P.E.
Principal

cc: J. Sussman, Goodyear Tire & Rubber Company
J. Sickles, USEPA
S. Reif, Arizona Department of Water Resources
M. Sarmiento, BEM Systems, Inc.
R. Bartholomew, Bartholomew Engineering
D. Stoltzfus, City of Phoenix
C. Parker, City of Phoenix

TO:	Nancy Lou Sandoval, Remedial Project Manager Arizona Department of Environmental Quality (ADEQ)
FROM:	Jeff Sussman, Project Manager The Goodyear Tire & Rubber Company (GTRC)
SUBJECT:	July 2003 Monthly Progress Report, Phoenix-Goodyear Airport (PGA) South Site in Goodyear, Arizona
DATE:	October 15, 2003

CURRENT ACTIVITIES

This monthly report describes PGA site activities conducted during September 2003. Notable activities are described below or detailed in the sections that follow. Activities this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- conducting surveying associated with the design of the piping for E-102.

Trichloroethene (TCE) was detected in well COG#11 on December 19, 1997. GTRC agreed to continue sampling the well on a monthly basis until the Northern Subunit C delineation is complete and an extraction system in place. The sample collected from COG #11 on September 11, 2003, resulted in a detection at 1.0 µg/L for TCE.

OUTSTANDING ISSUES/RESOLUTIONS

The private access agreement for four monitoring wells that make up the Northern Subunit C plume expired on June 23, 2003. GTRC, ADEQ, USEPA and SHARP met with the landowners (Peacock) on May 14, 2003 to review the proposal to extend access for 12 additional years. Quarterly samples from these wells were collected in early June. Negotiation with the landowner for access is ongoing.

The owner of the property on which the former Goodyear Farms irrigation well (well 9-B) is located has been contacted. GTRC is pursuing access to this property to properly plug and abandon this well. The driller selected for the abandonment work is under contract and will proceed after access from the landowner is obtained.

PLANS FOR THE NEXT MONTH

Plans for October 2003 include:

- continuing operation of the Subunit A treatment system, the Northern Subunit C treatment system, and the Southern Subunit C treatment system;
- collecting the quarterly and semi-annual monitoring well sampling;
- beginning design of the pipeline alignment from E-102 to the Southern Subunit C treatment system;
- finalizing the design of the new vault for I-203 to accommodate the City of Phoenix taxiway expansion; and
- meeting with ADEQ and USEPA to discuss project status (October 14th).

CHROMIUM MANAGEMENT APPROACH

As part of the chromium management approach, well E-17 was placed on-line without chrome treatment on June 18, 2001. Key wells are sampled monthly and the balance quarterly. The analytical results for the last six months are presented in the table below.

Extraction Well	3/13/03 CRT* (mg/L)	4/11/03 CRT* (mg/L)	5/15/03 CRT* (mg/L)	6/16/03 CRT* (mg/L)	7/10/03 CRT* (mg/L)	8/15/03 CRT* (mg/L)	9/11/03 CRT (mg/L)
NE-1	NA	0.059	NA	NA	0.062	NA	0.063
NE-2	NA	0.014	NA	NA	0.011	NA	0.008
NE-3	NA	0.009	NA	NA	0.010	NA	NA
NE-4	NA	0.024	NA	NA	0.027	NA	NA
NE-5	NA	0.090	NA	NA	0.095	NA	0.099
E-07R	0.222	0.186	0.216	0.234	0.240	0.240	NA
E-08	NA	0.051	NA	NA	0.077	NA	0.054
E-10	NA	<0.005	NA	NA	0.009	NA	NA
E-11	NA	0.028	NA	NA	0.032	NA	0.033
E-12	0.174	0.171	0.237	0.190	0.207	0.233	0.191
E-16	NS	NS	NS	NS	NS	NS	NS
E-17	NS	NS	0.168	0.153	0.140	0.154	0.147
Air stripper Effluent predicted (a)	0.069	0.061	0.078	0.074	0.083	0.091	0.075
Air stripper Effluent actual	0.070	0.068	0.079	0.080	0.075	0.101	0.098

*CRT – total chromium results by method EPA 200.7. All the samples were digested prior to analysis as required by the method.

NS – not sampled due to well off line.

NA – not analyzed as per sampling program.

(a)– the predicted effluent concentration is based on a mass weighted average from the individual extraction wells.

NORTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

Operation of the Northern Subunit C system continued during September 2003. A total of 3.5 million gallons (MG) of water was extracted. The system operated 30 out of 30 days in September. The treatment system influent sample contained TCE at a concentration of 2.8 µg/L (9/16/03) yielding a calculated mass removal this month of 0.08 lbs. Total mass removed to date by the system is 21.74 lbs. TCE was detected in the sample collected between the carbon vessels at 1.8 µg/L.

The Northern Subunit C system operated for the entire month without outages.

Production for September 2003 was as follows:

Wells Injection Wells	Production (MG)	Average Rate (gpm)	Days On/Uptime Rate (days/gpm)
I-101	*	*	*
I-102	*	*	*
Total Injected	*	*	*
Extraction wells			
E-101	3.5	81.0	**30/81**
GAC#2 **	0	0	**0/0**
Total Extracted	**3.5**	**81.0**	

* Injection well flow meter not operating correctly and is reporting erroneous data

** Total flow based on data as reported by Lockheed Martin reported on 10/1/03. Well GAC #2 was restarted on 9/29/03

SOUTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

A total of 9.3 MG of water was extracted from the Southern Subunit C treatment system during September 2003. The system operated 30out of a possible 30 days. The September inlet sample contained TCE at 8.4 µg/L (9/16/03) yielding a calculated mass removal for TCE during September of 0.65 lbs. Total mass removed to date by the Southern Subunit C system is 159.49 lbs. The TCE result was <1.0 µg/L in the sample collected between the carbon vessels.

The Southern Subunit C system was operated the entire month without outages.

Vessel Flow Configuration*	Operational Dates	Time to Detect TCE >5 µg/l**	Time Before Required Change out
A/B	Startup (10/94) – 6/95	6 months	8 months
A'/B	6/95 – 12/95	3 months	6 months
A''/B	12/95 – 10/96	8 months	10 months
B/A''	10/96-1/22/97	1 month	3 months
A''/B'	1/22/97-10/30/97	9 months	10 months
B'/A'''	10/31/97 – 6/22/98	7 months	8 months
A'''/B''	6/22/98 – 8/25/99	12 months	14 months
B'''/A'''	8/25/99 – 10/4/00	13 months	13 months
A''''/B'''	10/4/00- 10/17/01	12 months	12 months
B''''/A''''	10/17/01- 1/16/03	14 months	14 months
A'''''/B'''''	1/16/03 - present	> 8 months	to be determined

* Vessel contents A - virgin coal based carbon

B - virgin coal based carbon

A' - on site regenerated coal based carbon

A''- coconut based carbon (applies to A''', A'''', A''''')

B' - coconut based carbon (applies to B'', B''', B'''', and B''''')

** The detection limit is 1 µg/L; the action level is 5 µg/L detected between the vessels; detection at this level initiates the planning process for the next change out. Time is presented in months after change out

Production for the Southern Subunit C system in September 2003 is as follows:

Extraction Wells	Production (MG)	Average Rate(gpm)	Days On/Avg.Rate (days/gpm)
E-201	5.2	120.4	30/120.4
E-202	4.1	94.9	30/94.9
E-203	WELL REMOVED FROM SERVICE		
Totals	**9.3**	**215.3**	**30/215.3**
Injection Wells	**Production (MG)**	**Average Rate(gpm)**	**Days On/Avg.Rate (days/gpm)**
I-201	5.1	118.1	30/118.1
I-202	5.0	115.7	30/115.7
I-203	1.8	41.7	30/41.7
Totals	**11.9**	**275.5**	**30/275.5**

SUBUNIT A TREATMENT SYSTEM OPERATION

A total of 16.1 MG of water was treated at the Subunit A system in September 2003. The Subunit A extraction system operated at an average uptime rate of 372.7 gpm for 29.1 of 30 days this month.

The Subunit A treatment system was offline for 23 hrs. during the month of September for storm related outages, accidental shutdown from the remote telemetry system, and to determine the location of line faults in the power cables between the treatment system and the remote wells (NE-3 and NE-4).

The treatment system influent sample contained TCE at a concentration of 105.0 µg/L (9/11/03) yielding a calculated mass removal of 14.11 lbs for the month of September. The cumulative total TCE mass removed by the Subunit A treatment system to date is 4,684.43 lbs. The TCE result in the effluent sample taken from the air stripper tower at the Subunit A Treatment System was <1.0 µg/L.

Production for the Subunit A system in September 2003 is as follows:

Extraction Wells	Production (MG)	Average Rate (gpm)	On time Days/Rate (gpm)
Total Extracted	**16.1**	**372.7**	**29.1/384.2**
Total Injected	**15.5**	**358.8**	**29.1/369.9**

The differences between total extracted and total injection is due to evaporation across the air stripper and meter variances.

Performance Measurement Tracking Log
Project Manager Input Form

PERIOD COVERED: September 2003
DATE DUE: October 15, 2003

ADMINISTRATIVE INFORMATION:

1. Main Site Code: **41-0000-02**
1a. Facility Site Code:
2. Site Name **Phoenix Goodyear Airport (south)**
3. Project Manager: **Nancy Lou Minkler**
4. Funding Type: **CERCLA- consent decree required**

Technical Information

5. DEQ Site Visits (RPM & Hydro)	0	6. Meetings w/Ips	0
7. Public Meetings Held	0	8. Fact Sheets on a site	
9. Water Samples Taken (DEQ/EPA)	30	10. Water Samples Taken (IP)	
11. Soil/Soil Gas Samples Taken (DEQ/EPA)		12. Soil/Soil Gas Samples Taken (IP)	0
13. Air Samples Taken (DEQ/EPA)	0	14. Air Sample Taken (IP)	0
15. Groundwater Wells Installed (DEQ) Date Installed ___/___/___		16. Groundwater Wells Installed (IP)	0
17. Soil Vapor Wells Installed (DEQ) Date Installed ___/___/___	0	18. Soil Vapor Wells Installed (IP) Date Installed ___/___/___	0
19. Abandoned Groundwater Wells Date Abandoned ___/___/___	0	20. Abandoned Other Wells Date Abandoned ___/___/___	0
21. Remedial Investigation (started) overall area and/or facilities (see comments).	0	22. Remedial Investigations (completed)	0
23. Date Risk Assessment Completed	0	24. Date Feasibility Study Underway ___/___/___	0
25. Date Feasibility Study Went Underway	0	26. Remedial Design 10% 30% 60%	100%
27. Construction Start Date ___/___/___	0	28. Technology Used: pump and treat for water (air stripper Subunit A/GAC for Subunit C), SVE for Soil	
29. Treatment Plant Start Date 12/89 Subunit A; 2/94 North Subunit C; 10/94 South Subunit C		30. Date Remedial Action Completed ___/___/___	
31. Gallons Water Treated (VOCs) Subunit A 16,100,000 Southern Subunit C 9,300,000 Northern Subunit C 3,500,000		32. Hazardous Substance Removed (VOCs) in GW Treatment	14.84
33. Gallons Water Treated (metals)	0	34. Hazardous Substance Removed (metals)	0
35. Gallons Water Treated (other)	0	36. Hazardous Substance Removed (other)	0 lbs
37. Tons Soil Treated On-Site 0 (tons) 1 cy = 1 ton	0	38. Tons Soil Taken Off-site	0 (tons)
39. Acres Remediated		40. End Use of Water - (reinjection)	
41. Estimated reject Completion Date		42. Actual Completion Date ___/___/___	

SHARP AND ASSOCIATES, INC.
Environmental Engineers, Scientists, & Constructors

756 Park Meadow Road
Westerville, Ohio 43081
614.508.1200
614 508.1201 (fax)
www.sharpenv.com

November 20, 2003

Ms. Nancy Lou Sandoval
Remedial Project Manager
Arizona Department of Environmental Quality
1110 West Washington
Phoenix, AZ 85007

Subject: Transmittal of October 2003, Monthly Progress Report
Phoenix-Goodyear Airport (PGA) South Site, Goodyear, Arizona

Dear Ms. Sandoval:

Attached is the monthly progress report for October 2003, for the PGA South Site in Goodyear, Arizona. This report is being submitted on behalf of The Goodyear Tire & Rubber Company (GTRC) to fulfill the reporting requirements outlined in the Consent Decree. Activities conducted this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- meeting with ADEQ on October 14th;
- completing the surveying associated with the design of the piping for E-102; and
- commencing design of the E-102 piping.

If you have any questions, please feel free to call me at (614) 508-1200. Please note the change of address; we have moved to larger quarters. Included is an updated business card for your files.

Sincerely,

SHARP AND ASSOCIATES, INC.

Todd Struttmann, P.E.
Principal

cc: J. Sussman, Goodyear Tire & Rubber Company
J. Sickles, USEPA
S. Reif, Arizona Department of Water Resources
M. Sarmiento, BEM Systems, Inc.
R. Bartholomew, Bartholomew Engineering
D. Stoltzfus, City of Phoenix
C. Parker, City of Phoenix

TO:	Nancy Lou Sandoval, Remedial Project Manager Arizona Department of Environmental Quality (ADEQ)
FROM:	Jeff Sussman, Project Manager The Goodyear Tire & Rubber Company (GTRC)
SUBJECT:	July 2003 Monthly Progress Report, Phoenix-Goodyear Airport (PGA) South Site in Goodyear, Arizona
DATE:	November 20, 2003

CURRENT ACTIVITIES

This monthly report describes PGA site activities conducted during October 2003. Notable activities are described below or detailed in the sections that follow. Activities this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- meeting with ADEQ on October 14th;
- completing the surveying associated with the design of the piping for E-102
- commencing design of the E-102 piping.

Trichloroethene (TCE) was detected in well COG#11 on December 19, 1997. GTRC agreed to continue sampling the well on a monthly basis until the Northern Subunit C delineation is complete and an extraction system in place. The sample collected from COG #11 on October 16, 2003, resulted in a non-detect at <1.0 μg/L for TCE.

OUTSTANDING ISSUES/RESOLUTIONS

The private access agreement for four monitoring wells that make up the Northern Subunit C plume expired on June 23, 2003. GTRC, ADEQ, USEPA and SHARP met with the landowners (Peacock) on May 14, 2003 to review the proposal to extend access for 12 additional years. Quarterly samples from these wells were collected in early June. Negotiation with the landowner for access is ongoing. Access for the October sampling was gained with the assistance of USEPA.

The owner of the property on which the former Goodyear Farms irrigation well (well 9-B) is located has been contacted. GTRC is pursuing access to this property to properly plug and abandon this well. The driller selected for the abandonment work is under contract and will proceed after access from the landowner is obtained.

PLANS FOR THE NEXT MONTH

Plans for November 2003 include:

- continuing operation of the Subunit A treatment system, the Northern Subunit C treatment system, and the Southern Subunit C treatment system;
- collecting the quarterly and semi-annual monitoring well sampling;
- submitting an evaluation of the TCE fluctuations in E-101 to USEPA and ADEQ;
- continuing design of the pipeline alignment from E-102 to the Southern Subunit C treatment system;
- conducting an specific injection capacity test on injection wells I-201, I-202, and I-203 to determine which one(s) need to be re-developed to accommodate the additional flow when E-102 is placed on line;
- providing an update for the upcoming CAG meeting (November 19th); and

- finalizing the design of the new vault for I-203 to accommodate the City of Phoenix taxiway expansion (November 7th).

CHROMIUM MANAGEMENT APPROACH

As part of the chromium management approach, well E-17 was placed on-line without chrome treatment on June 18, 2001. Key wells are sampled monthly and the balance quarterly. The analytical results for the last six months are presented in the table below.

Extraction Well	4/11/03 CRT* (mg/L)	5/15/03 CRT* (mg/L)	6/16/03 CRT* (mg/L)	7/10/03 CRT* (mg/L)	8/15/03 CRT* (mg/L)	9/11/03 CRT (mg/L)	10/16/03 CRT* (mg/L)
NE-1	0.059	NA	NA	0.062	NA	0.063	0.059
NE-2	0.014	NA	NA	0.011	NA	0.008	0.006
NE-3	0.009	NA	NA	0.010	NA	NA	0.009
NE-4	0.024	NA	NA	0.027	NA	NA	NA
NE-5	0.090	NA	NA	0.095	NA	0.099	0.089
E-07R	0.186	0.216	0.234	0.240	0.240	NA	NA
E-08	0.051	NA	NA	0.077	NA	0.054	0.065
E-10	<0.005	NA	NA	0.009	NA	NA	NA
E-11	0.028	NA	NA	0.032	NA	0.033	0.030
E-12	0.171	0.237	0.190	0.207	0.233	0.191	NS
E-16	NS	NS	NS	NS	NS	NS	NS
E-17	NS	0.168	0.153	0.140	0.154	0.147	0.138
Air stripper Effluent predicted (a)	0.061	0.078	0.074	0.083	0.091	0.075	0.051
Air stripper Effluent actual	0.068	0.079	0.080	0.075	0.101	0.098	0.044

*CRT – total chromium results by method EPA 200.7. All the samples were digested prior to analysis as required by the method.
NS – not sampled due to well off line.
NA – not analyzed as per sampling program.
(a)– the predicted effluent concentration is based on a mass weighted average from the individual extraction wells.

NORTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

Operation of the Northern Subunit C system continued during October 2003. A total of 7.1million gallons (MG) of water were extracted. The system operated 31 out of 31 days in October. The treatment system influent sample contained TCE at a concentration of 3.7 µg/L (10/15/03) yielding a calculated mass removal this month of 0.23 lbs. Total mass removed to date by the system is 21.97 lbs. TCE was detected in the sample collected between the carbon vessels at 1.8 µg/L.

The Northern Subunit C system operated for the entire month without outages.

Production for October 2003 was as follows:

Wells Injection Wells	Production (MG)	Average Rate (gpm)	Days On/Uptime Rate (days/gpm)
I-101	*	*	*
I-102	*	*	*
Total Injected	*	*	*
Extraction wells			
E-101	3.7	82.9	**31/82.9**
GAC#2 **	3.4	76.2	
Total Extracted	**7.1**	**159.1**	

* Injection well flow meter not operating correctly and is reporting erroneous data
** Total flow based on data as reported by Lockheed Martin reported on 10/1/03-11/3/03 for well GAC#2.

SOUTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

A total of 10.0 MG of water was extracted from the Southern Subunit C treatment system during October 2003. The system operated 31 out of a possible 31 days. The October inlet sample contained TCE at 9.0 µg/L (10/15/03) yielding a calculated mass removal for TCE during October of 0.75 lbs. Total mass removed to date by the Southern Subunit C system is 160.24 lbs. The TCE result was <1.0 µg/L in the sample collected between the carbon vessels.

The Southern Subunit C system was operated the entire month without outages.

Vessel Flow Configuration*	Operational Dates	Time to Detect TCE >5 µg/l**	Time Before Required Change out
A/B	Startup (10/94) – 6/95	6 months	8 months
A'/B	6/95 – 12/95	3 months	6 months
A''/B	12/95 – 10/96	8 months	10 months
B/A''	10/96-1/22/97	1 month	3 months
A''/B'	1/22/97-10/30/97	9 months	10 months
B'/A'''	10/31/97 – 6/22/98	7 months	8 months
A'''/B''	6/22/98 – 8/25/99	12 months	14 months
B'''/A'''	8/25/99 – 10/4/00	13 months	13 months
A''''/B'''	10/4/00- 10/17/01	12 months	12 months
B''''/A''''	10/17/01- 1/16/03	14 months	14 months
A'''''/B'''''	1/16/03 - present	> 9 months	to be determined

* Vessel contents A - virgin coal based carbon
B - virgin coal based carbon
A' - on site regenerated coal based carbon
A''- coconut based carbon (applies to A''', A'''', A''''')
B' - coconut based carbon (applies to B'', B''', B'''', and B''''')
** The detection limit is 1 µg/L; the action level is 5 µg/L detected between the vessels; detection at this level initiates the planning process for the next change out. Time is presented in months after change out

Production for the Southern Subunit C system in October 2003 is as follows:

Extraction Wells	Production (MG)	Average Rate(gpm)	Days On/Avg.Rate (days/gpm)
E-201	5.7	127.7	31/127.7
E-202	4.3	96.3	31/96.3
E-203	WELL REMOVED FROM SERVICE		
Totals	**10.0**	**224.0**	**31/224.0**
Injection Wells	**Production (MG)**	**Average Rate(gpm)**	**Days On/Avg.Rate (days/gpm)**
I-201	4.6	103.0	31/103.0
I-202	4.0	89.6	31/89.6
I-203	1.9	42.6	31/42.6
Totals	**10.5**	**235.2**	**31/235.2**

SUBUNIT A TREATMENT SYSTEM OPERATION

A total of 14.0 MG of water was treated at the Subunit A system in October 2003. The Subunit A extraction system operated at an average uptime rate of 412.0 gpm for 23.6 of 31 days this month.

The Subunit A treatment system was offline for 7.4 days in October for repairs to various power cables of the NE series extraction wells and piping and pipeline repairs.
The treatment system influent sample contained TCE at a concentration of 48.1 µg/L (10/15/03) yielding a calculated mass removal of 5.62 lbs for the month of October. The cumulative total TCE mass removed by the Subunit A treatment system to date is 4690.05 lbs. The TCE result in the effluent sample taken from the air stripper tower at the Subunit A Treatment System was <1.0 µg/L.

Production for the Subunit A system in October 2003 is as follows:

Extraction Wells	Production (MG)	Average Rate (gpm)	On time Days/Rate (gpm)
Total Extracted	**14.0**	**313.6**	**23.6/412.0**
Total Injected	**13.5**	**302.4**	**23.6/397.2**

The differences between total extracted and total injection is due to evaporation across the air stripper and meter variances.

Performance Measurement Tracking Log
Project Manager Input Form

PERIOD COVERED: October 2003
DATE DUE: October 15, 2003

ADMINISTRATIVE INFORMATION:

1. Main Site Code: **41-0000-02**
1a. Facility Site Code:
2. Site Name **Phoenix Goodyear Airport (south)**
3. Project Manager: **Nancy Lou Minkler**
4. Funding Type: **CERCLA- consent decree required**

Technical Information

5. DEQ Site Visits (RPM & Hydro)	0	6. Meetings w/Ips	0
7. Public Meetings Held	0	8. Fact Sheets on a site	
9. Water Samples Taken (DEQ/EPA)	30	10. Water Samples Taken (IP)	
11. Soil/Soil Gas Samples Taken (DEQ/EPA)		12. Soil/Soil Gas Samples Taken (IP)	0
13. Air Samples Taken (DEQ/EPA)	0	14. Air Sample Taken (IP)	0
15. Groundwater Wells Installed (DEQ) Date Installed ___/___/___		16. Groundwater Wells Installed (IP)	0
17. Soil Vapor Wells Installed (DEQ) Date Installed ___/___/___	0	18. Soil Vapor Wells Installed (IP) Date Installed ___/___/___	0
19. Abandoned Groundwater Wells Date Abandoned ___/___/____	0	20. Abandoned Other Wells Date Abandoned ___/___/___	0
21. Remedial Investigation (started) overall area and/or facilities (see comments).	0	22. Remedial Investigations (completed)	0
23. Date Risk Assessment Completed	0	24. Date Feasibility Study Underway ___/___/___	0
25. Date Feasibility Study Went Underway	0	26. Remedial Design 10% 30% 60%	100%
27. Construction Start Date ___/___/___	0	28. Technology Used: pump and treat for water (air stripper Subunit A/GAC for Subunit C), SVE for Soil	
29. Treatment Plant Start Date 12/89 Subunit A; 2/94 North Subunit C; 10/94 South Subunit C		30. Date Remedial Action Completed ___/___/___	
31. Gallons Water Treated (VOCs) Subunit A 14,000,000 Southern Subunit C 10,000,000 Northern Subunit C 7,100,000		32. Hazardous Substance Removed (VOCs) in GW Treatment	6.60
33. Gallons Water Treated (metals)	0	34. Hazardous Substance Removed (metals)	0
35. Gallons Water Treated (other)	0	36. Hazardous Substance Removed (other)	0 lbs
37. Tons Soil Treated On-Site 0 (tons) 1 cy = 1 ton	0	38. Tons Soil Taken Off-site	0 (tons)
39. Acres Remediated		40. End Use of Water - (reinjection)	
41. Estimated reject Completion Date		42. Actual Completion Date ___/___/___	

SHARP AND ASSOCIATES, INC.
Environmental Engineers, Scientists, & Constructors

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Westerville, Ohio 43081
614.508.1200
614 508.1201 (fax)
www.sharpenv.com

December 16, 2003

Ms. Nancy Lou Sandoval
Remedial Project Manager
Arizona Department of Environmental Quality
1110 West Washington
Phoenix, AZ 85007

Subject: Transmittal of November 2003, Monthly Progress Report
Phoenix-Goodyear Airport (PGA) South Site, Goodyear, Arizona

Dear Ms. Sandoval:

Attached is the monthly progress report for November 2003, for the PGA South Site in Goodyear, Arizona. This report is being submitted on behalf of The Goodyear Tire & Rubber Company (GTRC) to fulfill the reporting requirements outlined in the Consent Decree. Activities conducted this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- meeting with ADEQ and presenting to the Community Advisory Group on November 19th;
- collecting the quarterly and semi-annual monitoring well sampling;
- continuing design of the pipeline alignment from E-102 to the Southern Subunit C treatment system;
- interviewing potential contractors for implementing the pipline construction;
- conducting a specific injection capacity test on injection wells I-201, I-202, and I-203 to determine which one(s) need to be re-developed to accommodate the additional flow when E-102 is placed on line; and
- finalizing the design of the new vault for I-203 to accommodate the City of Phoenix taxiway expansion (November 7th).

If you have any questions, please feel free to call me at (614) 508-1200.

Sincerely,

SHARP AND ASSOCIATES, INC.

Todd Struttmann, P.E.
Principal

cc: J. Sussman, Goodyear Tire & Rubber Company
J. Sickles, USEPA
S. Reif, Arizona Department of Water Resources

M. Sarmiento, BEM Systems, Inc.
R. Bartholomew, Bartholomew Engineering
D. Stoltzfus, City of Phoenix
C. Parker, City of Phoenix

Performance Measurement Tracking Log
Project Manager Input Form

PERIOD COVERED: November 2003
DATE DUE: December 15, 2003

ADMINISTRATIVE INFORMATION:

1. Main Site Code: **41-0000-02**
1a. Facility Site Code:
2. Site Name **Phoenix Goodyear Airport (south)**
3. Project Manager: **Nancy Lou Minkler**
4. Funding Type: **CERCLA- consent decree required**

Technical Information

5. DEQ Site Visits (RPM & Hydro)	0	6. Meetings w/Ips	0
7. Public Meetings Held	0	8. Fact Sheets on a site	
9. Water Samples Taken (DEQ/EPA)	30	10. Water Samples Taken (IP)	
11. Soil/Soil Gas Samples Taken (DEQ/EPA)		12. Soil/Soil Gas Samples Taken (IP)	0
13. Air Samples Taken (DEQ/EPA)	0	14. Air Sample Taken (IP)	0
15. Groundwater Wells Installed (DEQ) Date Installed ___/___/___		16. Groundwater Wells Installed (IP)	0
17. Soil Vapor Wells Installed (DEQ) Date Installed ___/___/___	0	18. Soil Vapor Wells Installed (IP) Date Installed ___/___/___	0
19. Abandoned Groundwater Wells Date Abandoned ___/___/___	0	20. Abandoned Other Wells Date Abandoned ___/___/___	0
21. Remedial Investigation (started) overall area and/or facilities (see comments).	0	22. Remedial Investigations (completed)	0
23. Date Risk Assessment Completed	0	24. Date Feasibility Study Underway ___/___/___	0
25. Date Feasibility Study Went Underway	0	26. Remedial Design 10% 30% 60%	100%
27. Construction Start Date ___/___/___	0	28. Technology Used: pump and treat for water (air stripper Subunit A/GAC for Subunit C), SVE for Soil	
29. Treatment Plant Start Date 12/89 Subunit A; 2/94 North Subunit C; 10/94 South Subunit C		30. Date Remedial Action Completed ___/___/___	
31. Gallons Water Treated (VOCs) Subunit A 21,800,000 Southern Subunit C 8,700,000 Northern Subunit C 3,700,000		32. Hazardous Substance Removed (VOCs) in GW Treatment	20.55
33. Gallons Water Treated (metals)	0	34. Hazardous Substance Removed (metals)	0
35. Gallons Water Treated (other)	0	36. Hazardous Substance Removed (other)	0 lbs
37. Tons Soil Treated On-Site 0 (tons) 1 cy = 1 ton	0	38. Tons Soil Taken Off-site	0 (tons)
39. Acres Remediated		40. End Use of Water - (reinjection)	
41. Estimated reject Completion Date		42. Actual Completion Date ___/___/___	

TO:	Nancy Lou Sandoval, Remedial Project Manager Arizona Department of Environmental Quality (ADEQ)
FROM:	Jeff Sussman, Project Manager The Goodyear Tire & Rubber Company (GTRC)
SUBJECT:	July 2003 Monthly Progress Report, Phoenix-Goodyear Airport (PGA) South Site in Goodyear, Arizona
DATE:	December 15, 2003

CURRENT ACTIVITIES

This monthly report describes the PGA site activities conducted during November 2003. Notable activities are described below or detailed in the sections that follow. Activities this month included:

- continuing operation of the three groundwater treatment systems;
- collecting monthly effluent samples;
- meeting with ADEQ and presenting to the Community Advisory Group on November 19th;
- collecting the quarterly and semi-annual monitoring well sampling;
- continuing the design and specifications for the pipeline alignment from E-102 to the Southern Subunit C treatment system;
- interviewing potential contractors for implementing the pipeline construction;
- conducting a specific injection capacity test on injection wells I-201, I-202, and I-203 to determine which one(s) need to be re-developed to accommodate the additional flow when E-102 is placed on line; and
- finalizing the design of the new vault for I-203 to accommodate the City of Phoenix taxiway expansion (November 7th).

Trichloroethene (TCE) was detected in well COG#11 on December 19, 1997. GTRC agreed to continue sampling the well on a monthly basis until the Northern Subunit C delineation is complete and an extraction system in place. The sample collected from COG #11 on November 13, 2003, resulted in a detection at 1.0 µg/L for TCE.

OUTSTANDING ISSUES/RESOLUTIONS

The private access agreement for four monitoring wells that make up the Northern Subunit C plume expired on June 23, 2003. GTRC, ADEQ, USEPA and SHARP met with the landowners (Peacock) on May 14, 2003 to review the proposal to extend access for 12 additional years. Quarterly samples from these wells were collected in early June. Negotiation with the landowner for access is ongoing. Access for the October sampling was gained with the assistance of USEPA.

The owner of the property on which the former Goodyear Farms irrigation well (well 9-B) is located has been contacted. GTRC is pursuing access to this property to properly plug and abandon this well. The driller selected for the abandonment work is under contract and will proceed after access from the landowner is obtained.

PLANS FOR THE NEXT MONTH

Plans for December 2003 include:

- continuing operation of the Subunit A treatment system, the Northern Subunit C treatment system, and the Southern Subunit C treatment system;
- contacting the owner of the property that the Goodyear Farms irrigation well resides to gain permission to properly plug and abandon that well;
- submitting an evaluation of the TCE fluctuations in E-101 to USEPA and ADEQ;
- applying for a street address for well E-102 (required for building permits);
- reviewing City of Goodyear requirements for permits;
- sending out the final design and specifications of the pipeline alignment from E-102 to the Southern Subunit C treatment system;
- soliciting bids for well redevelopment of I-201 and I-203;
- participating in the pre-bid for the taxiway paving project (December 9th); and
- preparing a modified operational approach to accommodate the taxiway paving project.

CHROMIUM MANAGEMENT APPROACH

As part of the chromium management approach, well E-17 was placed on-line without chrome treatment on June 18, 2001. Key wells are sampled monthly and the balance quarterly. The analytical results for the last six months are presented in the table below.

Extraction Well	6/16/03 CRT* (mg/L)	7/10/03 CRT* (mg/L)	8/15/03 CRT* (mg/L)	9/11/03 CRT (mg/L)	10/16/03 CRT* (mg/L)	11/13/03 CRT (mg/L)
NE-1	NA	0.062	NA	0.063	0.059	NA
NE-2	NA	0.011	NA	0.008	0.006	NA
NE-3	NA	0.010	NA	NA	0.009	NA
NE-4	NA	0.027	NA	NA	NA	0.039
NE-5	NA	0.095	NA	0.099	0.089	0.092
E-07R	0.234	0.240	0.240	NA	NA	0.245
E-08	NA	0.077	NA	0.054	0.065	NA
E-10	NA	0.009	NA	NA	NA	NA
E-11	NA	0.032	NA	0.033	0.030	NA
E-12	0.190	0.207	0.233	0.191	NS	0.214
E-16	NS	NS	NS	NS	NS	NS
E-17	0.153	0.140	0.154	0.147	0.138	0.142
Air stripper Effluent predicted (a)	0.074	0.083	0.091	0.075	0.051	0.073
Air stripper Effluent actual	0.080	0.075	0.101	0.098	0.044	0.073

*CRT – total chromium results by method EPA 200.7. All the samples were digested prior to analysis as required by the method.
NS – not sampled due to well off line.
NA – not analyzed as per sampling program.
(a)– the predicted effluent concentration is based on a mass weighted average from the individual extraction wells.

NORTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

Operation of the Northern Subunit C system continued during November 2003. A total of 3.7million gallons (MG) of water were extracted. The system operated 30 out of 30 days in November. The treatment system influent sample contained TCE at a concentration of 2.4 µg/L (11/13/03) yielding a calculated mass removal this month of 0.07 lbs. Total mass removed to date by the system is 22.04 lbs. TCE was detected in the sample collected between the carbon vessels at 1.4 µg/L.

The Northern Subunit C system operated for the entire month without outages.

Production for November 2003 was as follows:

Wells **Injection Wells**	**Production (MG)**	**Average Rate (gpm)**	**Days On/Uptime Rate (days/gpm)**
I-101	*	*	*
I-102	*	*	*
Total Injected	*	*	*
Extraction wells			
E-101	3.6	83.3	**30/83.3**
GAC#2 **	0.12	2.8	
Total Extracted	**3.7**	**85.6**	

* Injection well flow meter not operating correctly and is reporting erroneous data

** Total flow based on data as reported by Lockheed Martin reported on 11/3/03-12/1/03 for well GAC#2.

SOUTHERN SUBUNIT C TREATMENT SYSTEM OPERATION

A total of 8.7 MG of water was extracted from the Southern Subunit C treatment system during November 2003. The system operated 28.3 out of a possible 30 days. The November inlet sample contained TCE at 6.3 µg/L (11/13/03) yielding a calculated mass removal for TCE during November of 0.46 lbs. Total mass removed to date by the Southern Subunit C system is 160.68 lbs. The TCE result was <1.0 µg/L in the sample collected between the carbon vessels.

The Southern Subunit C system was offline for 1.3 days for step testing of the injection wells.

Vessel Flow Configuration*	Operational Dates	Time to Detect TCE >5 µg/l**	Time Before Required Change out
A/B	Startup (10/94) – 6/95	6 months	8 months
A'/B	6/95 – 12/95	3 months	6 months
A''/B	12/95 – 10/96	8 months	10 months
B/A''	10/96-1/22/97	1 month	3 months
A''/B'	1/22/97-10/30/97	9 months	10 months
B'/A'''	10/31/97 – 6/22/98	7 months	8 months
A'''/B''	6/22/98 – 8/25/99	12 months	14 months
B'''/A'''	8/25/99 – 10/4/00	13 months	13 months
A''''/B'''	10/4/00- 10/17/01	12 months	12 months
B''''/A''''	10/17/01- 1/16/03	14 months	14 months
A'''''/B'''''	1/16/03 - present	> 10 months	to be determined

* Vessel contents
A - virgin coal based carbon
B - virgin coal based carbon
A' - on site regenerated coal based carbon
A''- coconut based carbon (applies to A''', A'''', A''''')
B' - coconut based carbon (applies to B'', B''', B'''', and B''''')
** The detection limit is 1 µg/L; the action level is 5 µg/L detected between the vessels; detection at this level initiates the planning process for the next change out. Time is presented in months after change out

Production for the Southern Subunit C system in November 2003 is as follows:

Extraction Wells	Production (MG)	Average Rate(gpm)	Days On/Avg.Rate (days/gpm)
E-201	4.8	111.1	28.7/116.1
E-202	3.9	90.3	28.7/94.4
E-203	WELL REMOVED FROM SERVICE		
Totals	**8.7**	**201.4**	**28.7/210.5**
Injection Wells	**Production (MG)**	**Average Rate(gpm)**	**Days On/Avg.Rate (days/gpm)**
I-201	3.3	76.4	28.779.8/
I-202	3.0	69.4	28.7/72.6
I-203	1.8	41.7	28.7/43.6
Totals	**8.1**	**187.5**	**28.7/196.0**

SUBUNIT A TREATMENT SYSTEM OPERATION

A total of 21.8 MG of water was treated at the Subunit A system in November 2003. The Subunit A extraction system operated at an average uptime rate of 513.2 gpm for 29.5 of 30 days this month.

The Subunit A treatment system was offline for 0.5 days in November for repairs to various power cables of the NE series extraction wells.

The treatment system influent sample contained TCE at a concentration of 110 µg/L (11/14/03) yielding a calculated mass removal of 20.02 lbs for the month of November. The cumulative total TCE mass removed by the Subunit A treatment system to date is 4,710.07 lbs. The TCE result in the effluent sample taken from the air stripper tower at the Subunit A Treatment System was <1.0 µg/L.

Production for the Subunit A system in November 2003 is as follows:

Extraction Wells	Production (MG)	Average Rate (gpm)	On time Days/Rate (gpm)
Total Extracted	**21.8**	**504.6**	**29.5/513.2**
Total Injected	**20.8**	**481.5**	**29.5/489.6**

The differences between total extracted and total injection is due to evaporation across the air stripper and meter variances.