

February 26, 2010

Project No. 04-01-101-001

Mr. Brian Rakvica. P.E.
Supervisor IV
Special Projects Branch
Nevada Division of Environmental Protection
2030 East Flamingo Road, Suite 230
Las Vegas, Nevada 89119-0818

Re: Titanium Metals Corporation
Henderson, Nevada Facility
NDEP Facility ID # 000537
*Response to NDEP's January 28, 2010 Comments Regarding the Semiannual
Groundwater Monitoring Report – 2nd Semester, 2009*

Dear Mr. Rakvica:

Please find attached a copy of the response to NDEP's January 28, 2010 comments on Titanium Metal Corporation's (TIMET's) Semiannual Groundwater Monitoring Report for the 2nd Semester of 2009. The attached report has been authored by Ms. Candace Friday of CdFriday & Associates and Ms. Victoria Tyson-Bloyd of Tyson Contracting. This document has been reviewed and approved by me.

If you have any questions regarding this submittal, please do not hesitate to contact me at (702) 563-0600.

Sincerely,
BROADBENT & ASSOCIATES, INC.



Kirk J. Stowers, EM-1549 (exp. 10/11/10)
Associate Geologist

JURAT: I, Kirk J. Stowers, hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations and ordinances.

cc: Craig Wilkinson – TIMET
Dave Moore - TIMET
Victoria Tyson-Bloyd – Tyson Contracting
Paul Hackenberry – Hackenberry Associates
Brian Giroux – McGinley and Associates
Jim Najima – NDEP, Carson City
Al Tinney – NDEP, Carson City
Brenda Pohlmann – City of Henderson, referred to TIMET website
Rick Kellogg – BRC, referred to TIMET website
Ranajit Sahu – BRC, referred to TIMET website
Susan Crowley –TRONOX, referred to TIMET website
Mike Bellotti – Olin Corporation, referred to TIMET website
Curt Richards – Olin Corporation, referred to TIMET website
Joe Kelly – Montrose Chemical Corporation of California, referred to TIMET website
George Crouse – Syngenta Crop Protection, referred to TIMET website
Paul Sundberg – Montrose Chemical Corporation, referred to TIMET website
Lee Erickson – Stauffer Chemical, referred to TIMET website
Jay Snyder – EA Engineering, Science, and Technology, Inc., referred to TIMET website
Kathy Allford – T2 Environmental, referred to TIMET website
Candace Friday – CdFriday & Associates, referred to TIMET website

Attachment A

1. General comment, NDEP would like to accelerate the development and submittal of these Deliverables in the future. It would be preferred for NDEP to receive and approve the applicable data validation summary report prior to reviewing the groundwater monitoring report. It is expected that NDEP and TIMET can discuss this matter in our regularly scheduled project management calls.

TIMET Response: To reduce the number of submittals, TIMET proposes to provide the data validation summary report (DVSR) as an appendix to the monitoring report. TIMET understands that NDEP review comments on the DVSR may affect the contents of groundwater report. In our opinion, the potential for revision to the groundwater report based upon DVSR comments is fairly low. If revisions become necessary, they can likely be handled in an erratum rather than resubmittal of the entire document.

2. Section 1.0, page 1-1, in the NDEP's comments dated June 9, 2009, NDEP stated "Please note that the Discharge Monitoring Report (DMR) offers little interpretation of the data. It is the request of the NDEP that this information be included and discussed in future versions of this report." In response TIMET states "Data obtained from the quarterly groundwater protection and landfill permit wells are presented in TIMET's quarterly Discharge Monitoring Report to the NDEP and will not be specifically addressed here. However the analytical results obtained from these events have been added to the TIMET analytical database and will be validated and presented in the 2009 annual groundwater data validation summary report (DVSR)." This is not responsive to the NDEP's June 9, 2009 comment. The DVSR does not present and interpret the data in any manner similar to what is provided in the semi-annual reports. To be clear, the next semi-annual report must present and interpret the referenced data, failure to do so will result in rejection of the Deliverable without review. Please discuss this matter with the NDEP **by February 12, 2010** if there are any concerns.

TIMET Response: TIMET never intended or stated that the DVSR would contain data interpretation, just that the data obtained from these non-routine sampling events are validated and included in that data deliverable. TIMET understands NDEP's request that data results related to the permitted waste management units (evaporation ponds and J2 landfill) be evaluated within the groundwater monitoring reports. Future deliverables will address this request.

3. Section 1.2, page 1-3, 4th bullet, TIMET should reference the NDEP Basic Comparison Levels (BCLs) within this bullet.

TIMET Response: TIMET agrees that the NDEP BCLs are an appropriate addition to the list referenced above. Future deliverables will provide the reference.

4. Section 2.4, page 2-3, please advise the NDEP if TIMET intends to change the procedures in this Section in light of TIMET's revised NPDES permit.

TIMET Response: Since the 2009 NPDES permit allows for extracted groundwater as a wastestream input to the WCF, the purge water (extracted groundwater) can also be treated at the WCF. Purge water will be managed as extracted groundwater through the treatment system once construction is complete.

5. Section 2.5, 2nd paragraph, please reference the specific NDEP guidance that is being used for data validation.

TIMET Response: The NDEP guidance currently used for data validation is:

NDEP 2009. *NDEP Data Verification and Validation Requirements – Supplement April, 2009*. Attachment A of Letter from NDEP to All Companies, dated, April 13, 2009.

6. Section 3.0, page 3-1, please consolidate the discussion of wells BRW-R1 and MW-3R with the wells adjacent Lake Mead Parkway as they are both considered upgradient wells.

TIMET Response: TIMET understands the NDEP position on consolidating the discussion of upgradient wells to include BRW-R1, MW-3R and Lake Mead Parkway wells. No revision of this report is expected, but the request is duly noted for future deliverables.

7. Section 3.0, page 3-1, 2nd paragraph, NDEP does not agree with the deletion of the presentation of even quartered data. All available data should be presented.

TIMET Response: TIMET understands the NDEP position on including all available groundwater data. Note that only 6 analytes were measured in the even numbered quarters, and the data were only omitted in the report tables. The results were included in the database. This point is not applicable in future work, since all permit monitoring will be on a semiannual bases; coincident with the routine groundwater events.

8. Section 3.2.1, pages 3-3 and 3-4, TIMET states that the NDEP's September letter was issued to late to consider in this analysis. Based upon NDEP's review of the Deliverable it

appears that the analysis was conducted in October 2009. In addition, the NDEP's guidance is based upon Standard Methods, which the laboratories are supposed to be adhering to regardless of NDEP's guidance. Finally, NDEP's September 2009 guidance merely provided additional leniency to the interpretations of the cation-anion balance guidance. Therefore, it is not clear why TIMET could not address the guidance in a defensible manner. Please clarify.

TIMET Response: As NDEP noted, TIMET received the guidance in September which provided adequate time to conduct the CAB analysis. TIMET was speaking to the timing of the lab analysis which was conducted in late August and early September. As NDEP is aware, Standard Methods recommends addressing CAB imbalances through laboratory reanalysis. In order to comply with this recommendation, metal and anion analyses would have to be run on an accelerated schedule (at double the expense), the CAB evaluation conducted, and the reanalysis completed prior to exceeding the holding time for nitrate (48-hours). TIMET believes the extraordinary effort this entails does not justify the potential gain (CAB imbalance corrected). TIMET will continue to conduct the CAB evaluation in accordance with NDEP guidance and qualify the data as necessary.

9. Section 3.2.2, page 3-5, TIMET's discussion on an analyte-by-analyte basis is inconsistent. NDEP requests that the discussions be made consistent.

TIMET Response: Future discussions of concentration trends on an analyte-by-analyte basis will be made more consistent.

10. Figure 3-1, contours 1750, 1760 and 1770 appear to indicate a lack of east-west control. Please dash these contours as appropriate.

TIMET Response: Future presentations of the potentiometric surface map will dash contours accordingly.

11. Table 3-21 and general comment on cation-anion balance, TIMET did not use five significant figures for atomic weights in figuring their milliequivalents (rather it appears that TIMET has used between three and five significant figures with no apparent justification). This issue must be addressed in future Deliverables.

TIMET Response: TIMET carefully calculated the original CAB keeping the number of significant figures to 2 or 3 in order to match the laboratory results, reported in 2 significant figures only. But to be consistent with IUPAC standard for atomic numbers (reported at 5 significant figures), TIMET recalculated the CAB and recreated Table 3-21 (attached). The recalculation did not change the outcome of the CAB evaluation.

12. Appendix C, TIMET labels all comparison metrics as “MCL” on the figures. Some of these comparison metrics are actually NDEP BCLs and others are USEPA Secondary MCLs. This must be clarified in future Deliverables.

TIMET Response: Future deliverables will reference the correct source.

13. Figure D-1, TIMET has inadequate data to close the contours east of well TIMET MW-4, please clarify. Please note that this comment applies to all Figures.

TIMET Response: For Figure D-1, Arsenic, TIMET utilized historic data from AA-01, and AA-27 to close the contours east of well TIMET (see CSM Figure 4-14). For 2009 groundwater dataset NDEP is correct that inadequate data existed to close the contour. Future presentation of concentration contours will be made based upon the current dataset only.

14. Figure D-3, it is interesting to note that hexavalent chromium is at least 100% of the total chromium concentration in what appears to be all cases. This is a significant issue which requires discussion in the text.

TIMET Response: Future deliverables will note this issue explicitly.

**TABLE 3-21
CATION-ANION BALANCE RESULTS
GROUNDWATER MONITORING REPORT
2ND SEMESTER 2009**

Well ID	Cation Sum (meq/L) ¹	Anion Sum (meq/L) ²	Difference (%) ³	CAB Result	TDS Measured (mg/L)	TDS Calculated (mg/L)	Ratio ⁴	TDS Results ⁵	TDS Measured (mg/L)	EC Measured (uS/cm)	Ratio TDS:EC ⁶	EC Results ⁷	Qualifier
BRW-R1	49	54	4.8	Acceptable	3800	3500	1.1	Acceptable	3800	4590	0.83	Acceptable	No qualifier
CLD1-R	84	39	37	Unacceptable	5400	3600	1.5	Unacceptable	5400	8140	0.66	Acceptable	J-CAB, J-TDS
CLD2-R	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Acceptable	NA
CLD3-R	180	170	2.9	Acceptable	11000	10000	1.1	Acceptable	11000	16600	0.66	Acceptable	No qualifier
CLD4-R	73	89	9.9	Unacceptable	6400	5500	1.2	Acceptable	6400	10220	0.63	Acceptable	J-CAB
Duplicate -1	82	75	4.5	Acceptable	5200	4700	1.1	Acceptable	5200	6540	0.63	Acceptable	No qualifier
Duplicate-2	93	74	11	Unacceptable	5700	4900	1.2	Acceptable	5700	7060	0.63	Acceptable	J-CAB
J2D1-R2	86	76	6.2	Unacceptable	5300	4900	1.1	Acceptable	5300	6990	0.76	Acceptable	J-CAB
J2D3-R	71	75	2.7	Acceptable	5200	4700	1.1	Acceptable	5200	6450	0.81	Acceptable	No qualifier
J2D4	230	200	7.0	Unacceptable	13000	13000	1	Acceptable	13000	18900	0.69	Acceptable	J-CAB
J2D2-R2	76	78	1.3	Acceptable	5600	4700	1.2	Acceptable	5600	7060	0.79	Acceptable	No qualifier
J2U1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Acceptable	NA
J2U2	73	75	1.4	Acceptable	5100	4500	1.1	Acceptable	5100	6540	0.78	Acceptable	No qualifier
MW-3R	25	29	7.4	Unacceptable	2100	2000	1	Acceptable	2100	2750	0.76	Acceptable	J-CAB
MW-4	43	39	4.9	Acceptable	3100	2800	1.1	Acceptable	3100	3680	0.84	Acceptable	No qualifier
MW-5	55	55	0	Acceptable	3800	3700	1	Acceptable	3800	4730	0.8	Acceptable	No qualifier
MW-6R	45	44	1.1	Acceptable	3100	3000	1	Acceptable	3100	4210	0.74	Acceptable	No qualifier
TMMW-101	21	22	2.3	Acceptable	1500	1600	0.94	Unacceptable	1500	2020	0.74	Acceptable	No qualifier
TMMW-102	15	16	3.2	Acceptable	1100	1100	1	Acceptable	1100	1650	0.67	Acceptable	No qualifier
TMMW-103	36	43	8.8	Unacceptable	2800	2600	1.1	Acceptable	2800	3820	0.73	Acceptable	J-CAB
TMMW-104	27	29	3.6	Acceptable	2000	2000	1	Acceptable	2000	2780	0.72	Acceptable	No qualifier

Notes:

CAB	Cation/anion balance	mg/L	Milligram per liter	Duplicate 1 = J2U2
EC	Electrical conductivity	TDS	Total dissolved solids	Duplicate 2 = J2D2-R2
meq/L	Milliequivalent per liter	uS/cm	MicroSiemens per centimeter	

- Cations summed include: Calcium, magnesium, sodium, and potassium.
- Anions summed include: Bicarbonate, carbonate, chloride, fluoride, nitrate-nitrogen, perchlorate, and sulfate.
- QC criterion for CAB: absolute percent difference less than or equal to 5 percent; when the anion sum is between 10 and 800 meq/L.
- Ratio of laboratory measured TDS to calculated TDS.
- QC criterion for TDS measured versus calculated: ratio of TDS measured to TDS calculated greater than or equal to 1.0 and less than or equal to 1.2.
- QC limits for TDS versus ED ratio is 0.54 to 0.96
- J-TDS indicates that TDS value for the given well is estimated; J-CAB indicates that the values for the 11 cation/anions are estimated for a given well. The qualification of results based CAB includes the "J" qualifier with the associated comment code "p" or "q" in the TIMET analytical database