

Figure B-16
Horizontal Ground Temperature Distribution
West Dam
Station 0+120, Elevation 522 m

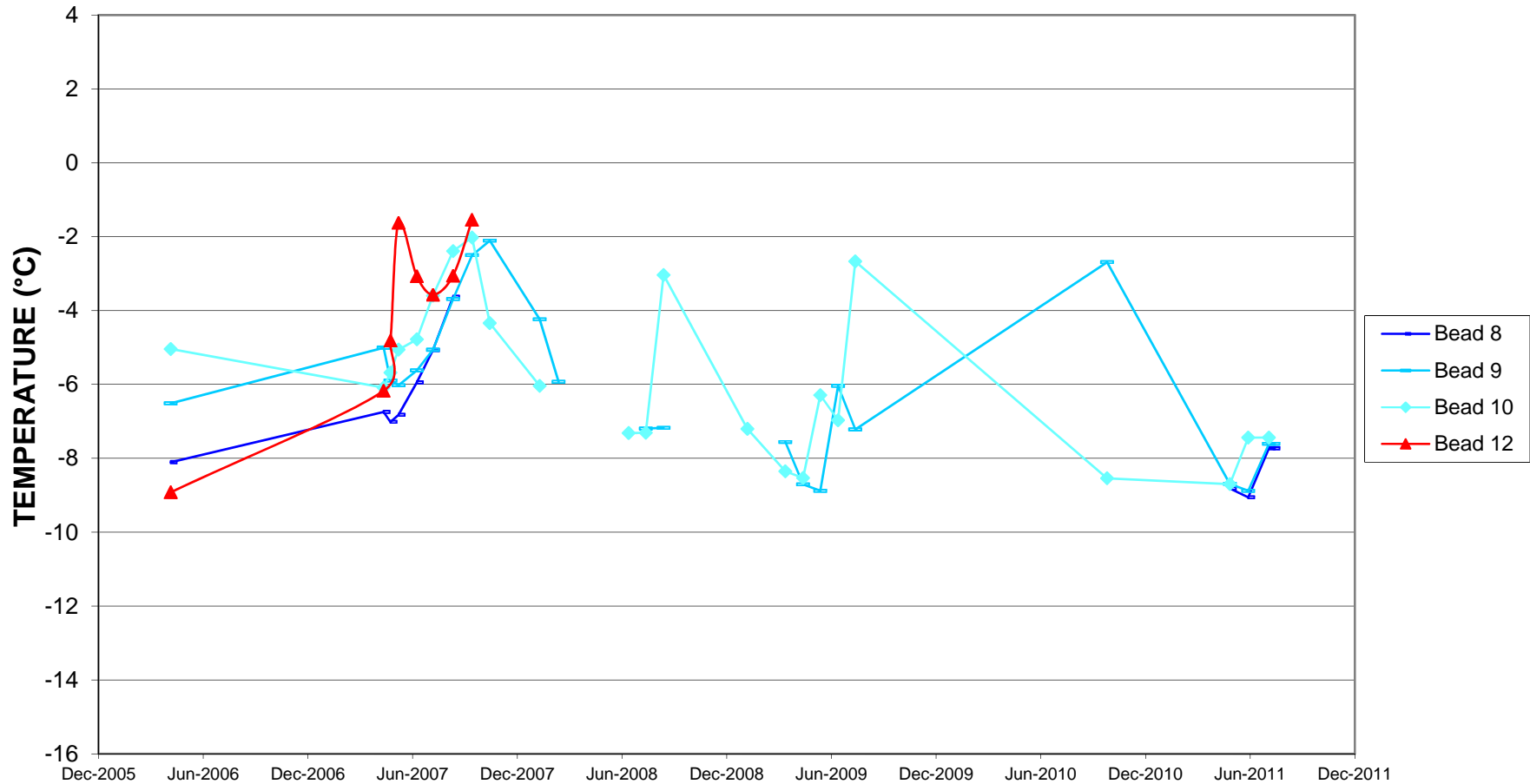
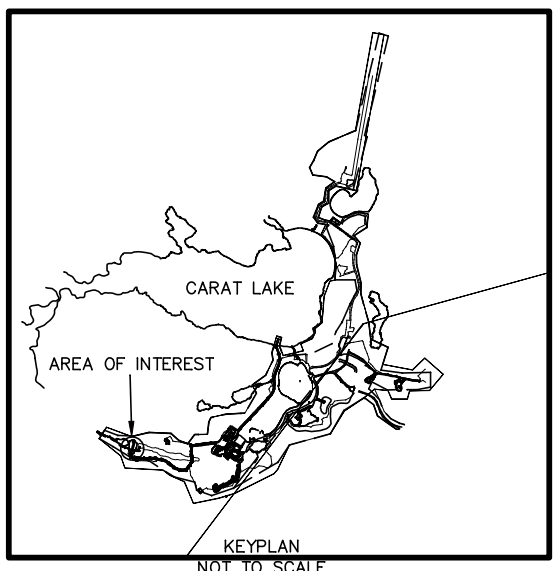
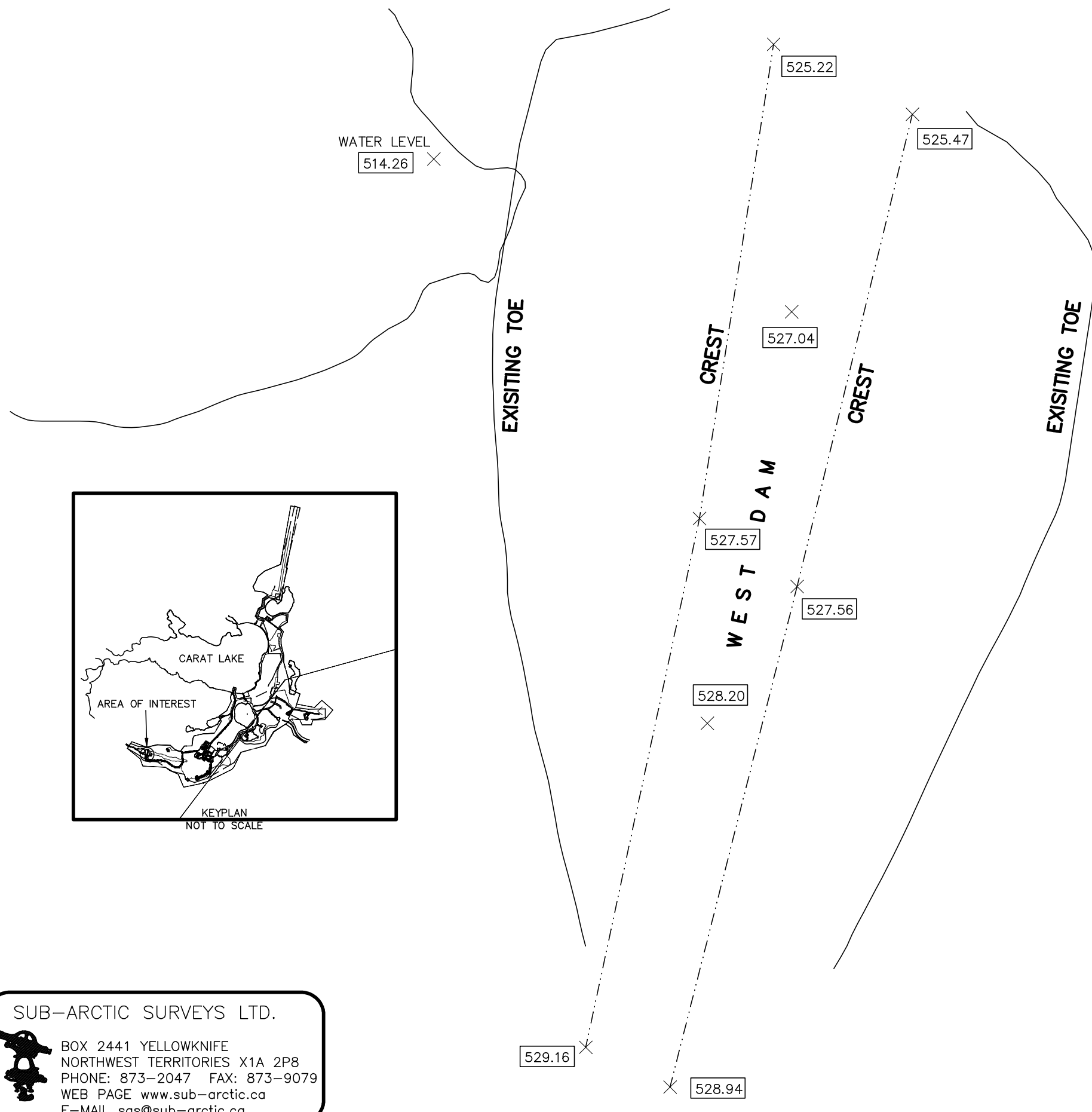
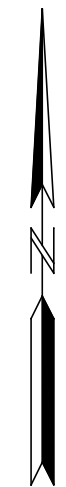


Figure B-17
Horizontal Ground Temperature Distribution
West Dam
Station 0+120, Elevation 522 m



× WATER LEVEL
516.84



NOTES:

BASE @ #5000
 UTM 12, NAD27
 N: 7,319,137.843
 E: 477,997.315
 ELEV: 533.222

DATE OF SURVEY: JULY 20, 2011

| NO. | REVISION\ISSUE | DATE: |
|-----|----------------|-------|
| | | |
| | | |
| | | |

DRAWN BY: K.T.
 CHECKED BY: B.H.

SHEAR DIAMONDS LTD.

**WEST DAM WATER LEVELS
 JERICHO MINE SITE
 NU.**

FILE NO.: 11-023-WESTDAM
 DATE: JULY 26, 2011
 SCALE: 1:750

SUB-ARCTIC SURVEYS LTD.

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Photo B1: West Dam discharge location on downstream side of dam



Photo B2: Energy dissipator at discharge location



Photo B3: West dam looking south; dam crest in good condition with no problems noted



Photo B4: Upstream slope of dam in good condition



Photo B5: Downs slope of dam generally in good condition. Some settlement and tension cracking at south end of dam. Does not impact dam performance



Photo B6: Settlement at south end of dam, on downstream slope; condition appears unchanged from 2009



Photo B7: Tension cracking downstream of settlement area; condition appears unchanged from 2009, does not impact dam performance

APPENDIX C

APPENDIX C DIVIDER DYKE A

Geotechnical Inspection Summary

Location: Jericho Diamond Mine
Facility: Divider Dyke A
Observation Date: July 15, 2011
Inspected by: Gary Koop, P.Eng.
 EBA, A Tetra Tech Company

Table C.1: Operating Condition

| | |
|-----------------------------|--|
| Minimum Crest Elevation (m) | 525 (approximate – varies 525 to 527.5) |
| Top of Core or Liner (m) | 521.5 (elevation varies from 521.5 to 524 m) |
| Water Levels – Upstream | Tailings Only |
| Water Levels - Downstream | 516.84 (July 20, 2011) |
| Discharge | No flow observed through filter dyke |

Table C.2: Observed Condition

| Features | Present (yes/no) | Dimensions | Extent | Description | Photographic Records |
|----------------|------------------|------------|--------|-------------|----------------------|
| Erosion | None noted | | | | |
| Cracking | None noted | | | | |
| Settlement | None noted | | | | |
| Seepage | None noted | | | | |
| Other Features | | | | | |

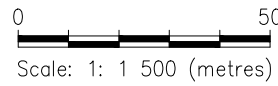
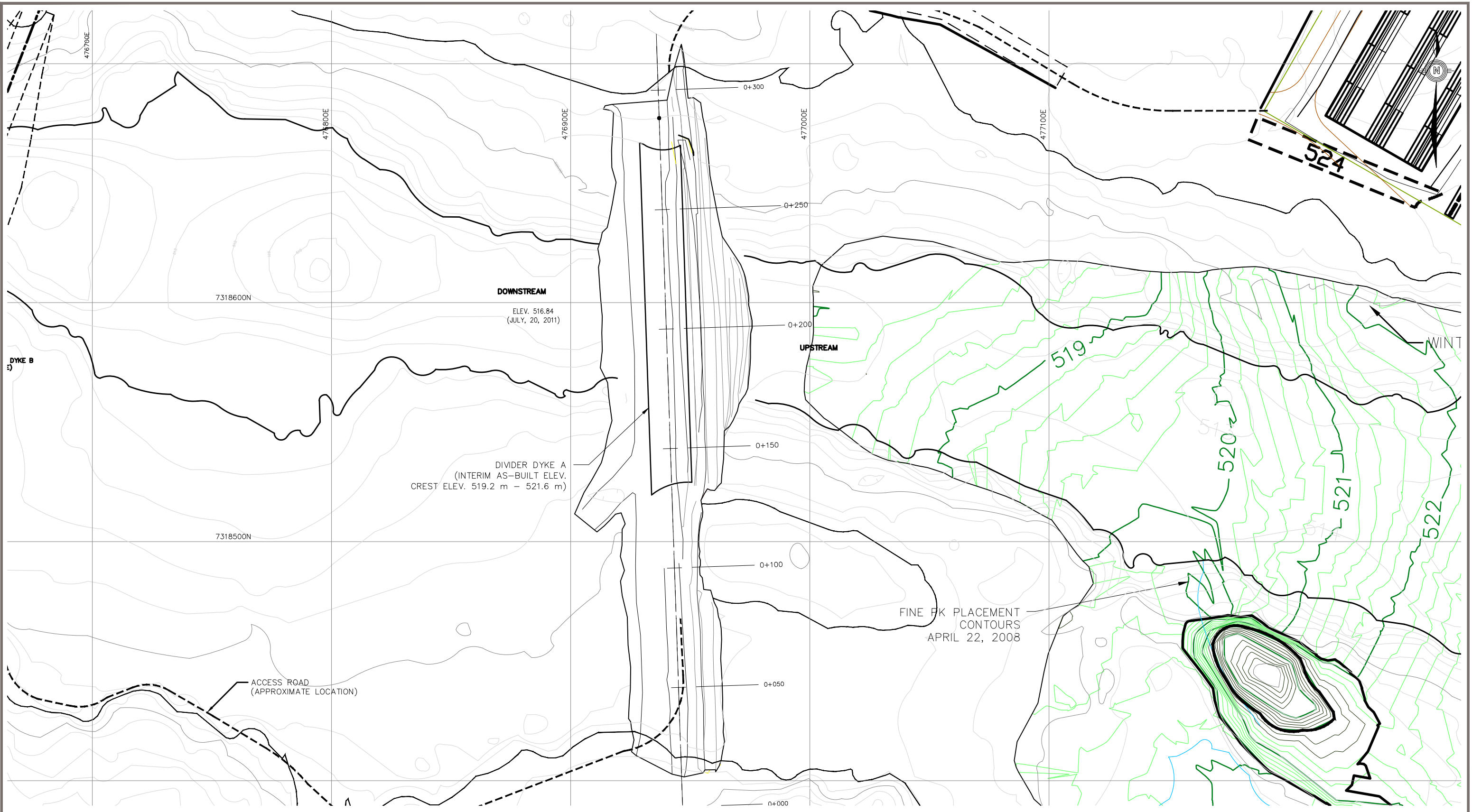
Table C.3: Thermal Summary

No ground temperature measurements in the dyke.

Table C.4: Recommendations and Conclusions

| |
|---|
| Dyke performance is satisfactory. No remedial action required |
|---|

Y:\E14101140_Jericho\Annual Geotechnical Inspection\Appendix C - Divider Dyke A\E1410117_FIG C-1.dwg [FIGURE C.1] September 09, 2011 - 5:40:44 pm (BY: KOOP, GARY)



NOTES
FIGURE BASED ON 2006 SURVEY.
DYKE WAS RAISED SINCE THIS SURVEY.

STATUS
ISSUED FOR REVIEW

CLIENT



A TETRA TECH COMPANY

| 2011 ANNUAL GEOTECHNICAL INSPECTION JERICHO DIAMOND MINE, NU | | | | |
|---|-------------------------|------------|----------|------------|
| DIVIDER DYKE A | | | | |
| PROJECT NO. E14101140 | DWN EP | CKD GDK | REV 0 | Figure C.1 |
| OFFICE EBA-EDM | DATE September, 2011 | | | |



Photo C1: Divider Dyke A facing south; crest is in good condition with no problems noted



Photo C2: Downstream slope of divider is in good condition



Photo C3: Upstream face of divider dyke; processed kimberlite placed on upstream slope to inhibit seepage through dyke



Photo C4: Upstream slope of dyke at south end of structure, no problems noted



Photo C5: Processed kimberlite placed on upstream face of divider dyke

APPENDIX D

APPENDIX D EAST DAM

Geotechnical Inspection Summary

Location: Jericho Diamond Mine
Facility: East Dam
Observation Date: July 15, 2011
Inspected by: Gary Koop, P.Eng.
EBA, A Tetra Tech Company

Table D.1: Operating Condition

| | |
|-----------------------------|---|
| Minimum Crest Elevation (m) | 527 (approx.) |
| Top of Core or Liner (m) | 523.3 |
| Water Levels – Upstream | Processed kimberlite deposited on upstream face |
| Water Levels - Downstream | Not measured, water at or below toe of dam |
| Discharge | No discharge |

Table D.2: Observed Condition

| Features | Present (yes/no) | Dimensions | Extent | Description | Photographic Records |
|----------------|------------------|------------|--------|-------------|----------------------|
| Erosion | None noted | | | | |
| Cracking | None noted | | | | |
| Settlement | None noted | | | | |
| Seepage | None noted | | | | |
| Other Features | | | | | |

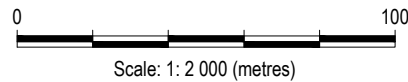
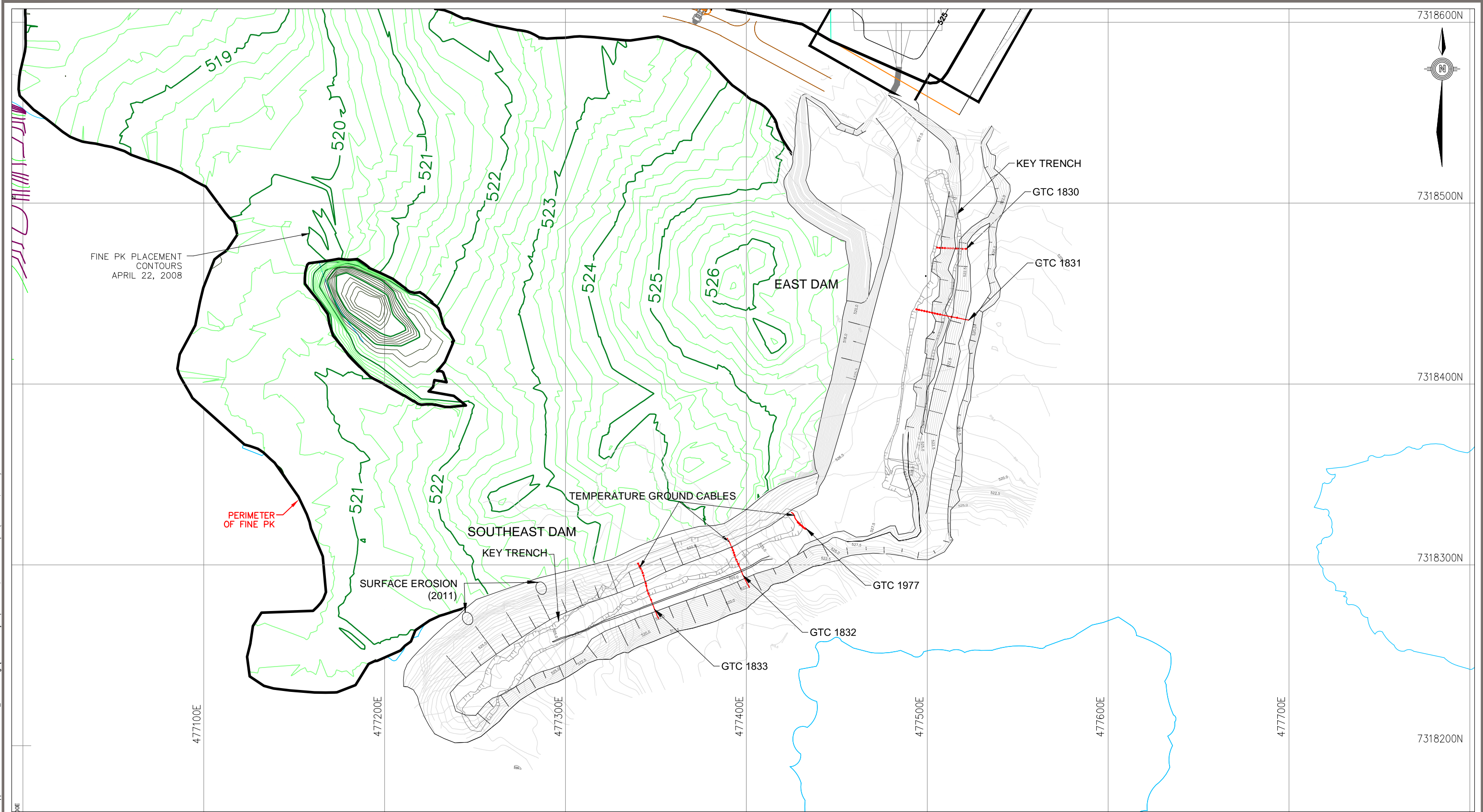
Table D.3: Thermal Summary

| |
|--|
| Ground temperature measurements in attached Figures D.2 to D.5. Base of key trench approximately -2.6 to -4.9°C. Temperatures typically within 1°C of values measured in 2009. |
|--|

Table D.4: Recommendations and Conclusions

| |
|---|
| Dam performance is satisfactory. No remedial action required. |
|---|

Y:\E14101140_Jericho\Annual Geotechnical Inspection\Appendix D - East Dam\E1410117_FIG D-1.dwg [FIGURE D.1] September 09, 2011 - 5:51:40 pm (BY: KOOP, GARY)



NOTES
GROUND TEMPERATURE CABLES (APPROXIMATE LOCATION).
CABLES AT BASE OF LINER IN KEY TRENCH.
FIGURE BASED ON 2007 RECORD DRAWINGS.

STATUS
ISSUED FOR REVIEW

CLIENT

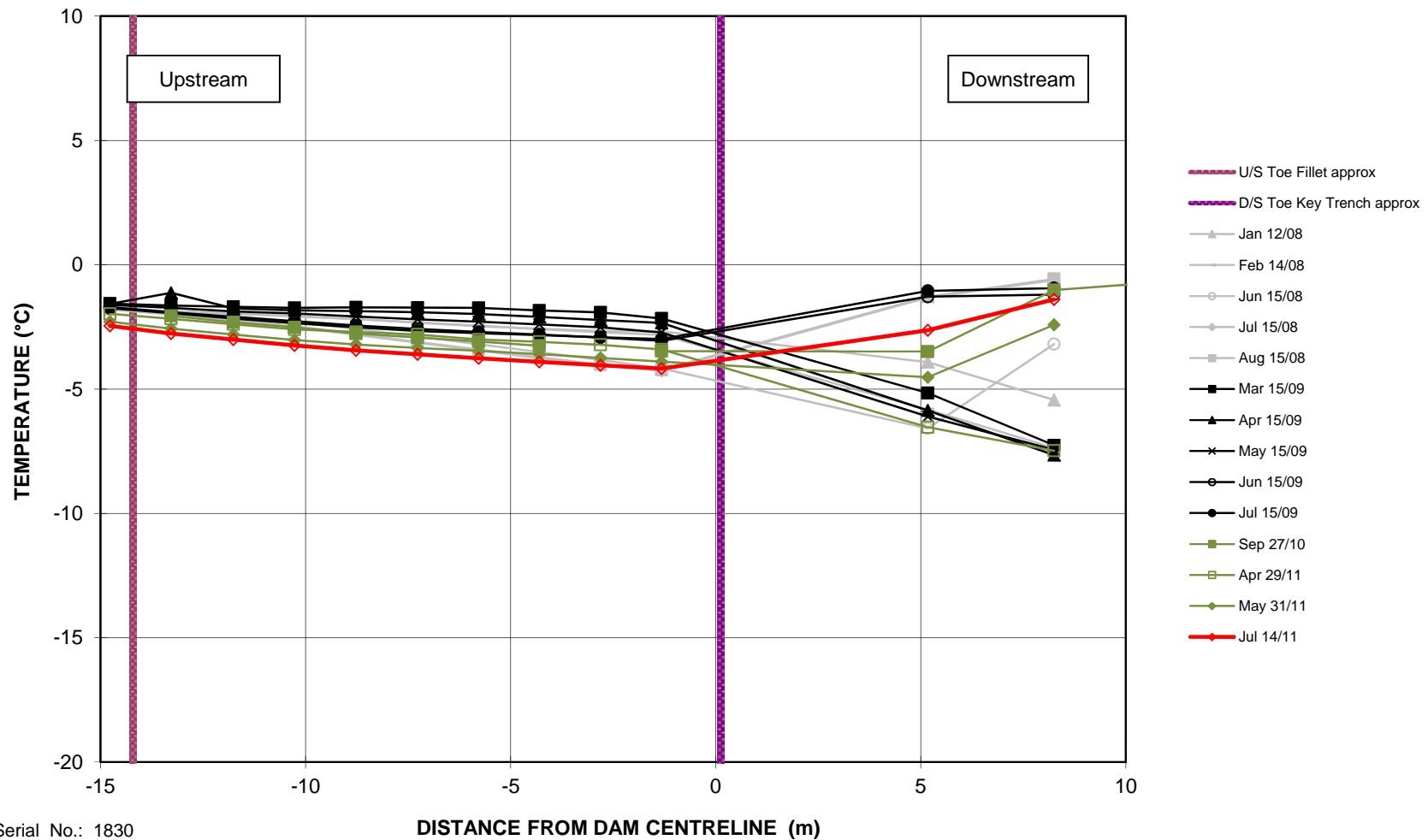


shear
diamonds



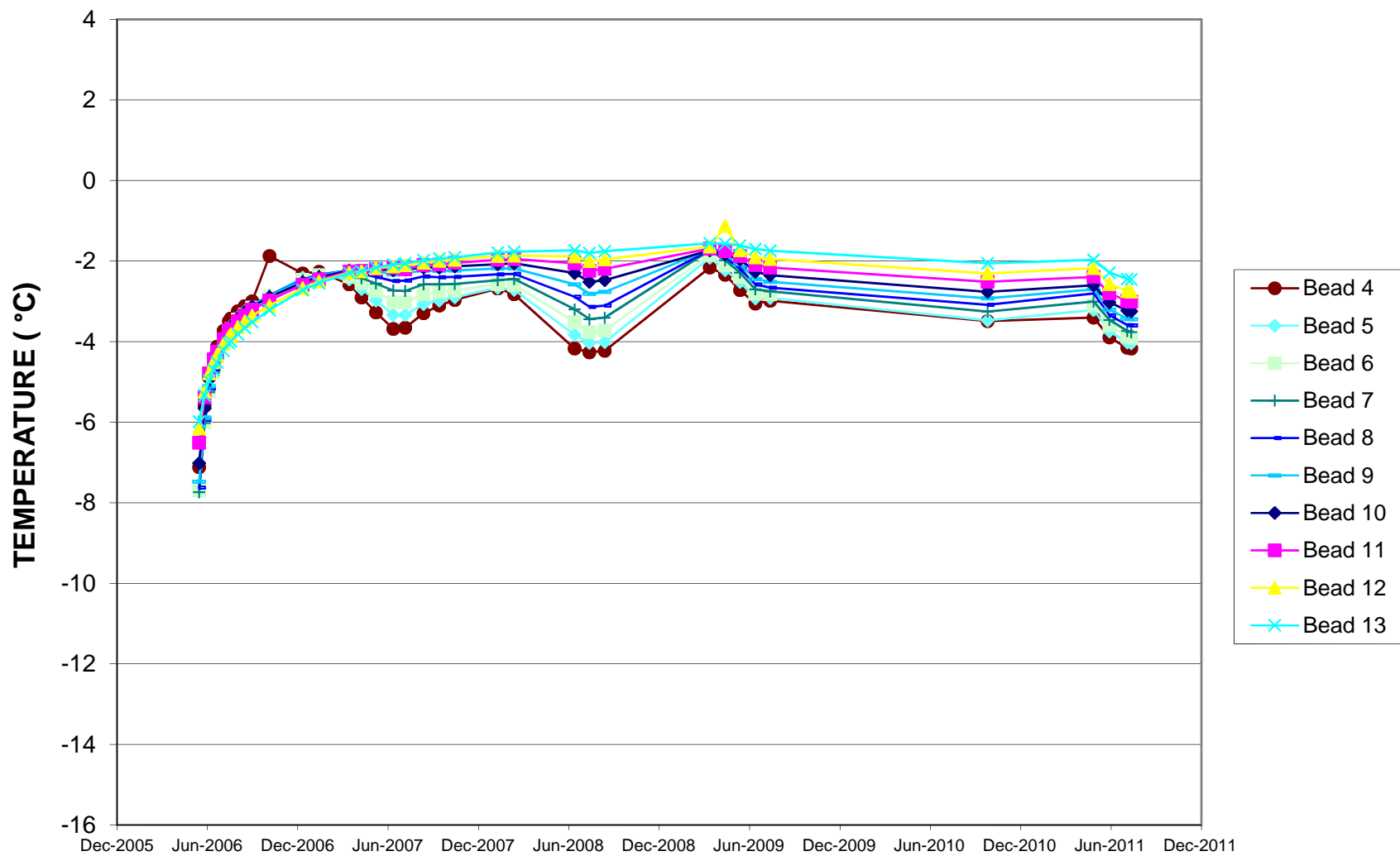
eba
A TETRA TECH COMPANY

| 2011 ANNUAL GEOTECHNICAL INSPECTION JERICHO DIAMOND MINE, NU | | | | |
|---|-------------------------|------------|----------|------------|
| SOUTHEAST DAM | | | | |
| PROJECT NO. E14101140 | DWN EP | CKD GDK | REV 0 | Figure D.1 |
| OFFICE EBA-EDM | DATE September, 2011 | | | |



Serial No.: 1830
Date Installed: 2005.12.11
EBA File No: 1100060.010

Figure D-2
Horizontal Ground Temperature Distribution
East Dam
Station 0+100, Trench Elevation 517 m



Serial No.: 1830
 Date Installed: 2005.12.11
 EBA File No: 1100060.010

Figure D-3
Horizontal Ground Temperature Distribution
East Dam
Station 0+100, Trench Elevation 517 m