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INTERIM RESPONSE PLAN

5851 West Jefferson Avenue | Detroit, Michigan
PM Project Number 01-5303-3-0001

Prepared for:

Revere Dock, LLC
2217 Lake Avenue North
Muskegon, Michigan 49445

Prepared by:

PM Environmental, Inc.
4080 West Eleven Mile Road
Berkley, Michigan 48072

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Michigan Locations
Berkley **Bay City**
Grand Rapids **Detroit**
Chesterfield **Lansing**

January 24, 2020

Mr. Paul Owens
Michigan Department of Environment, Great Lakes, and Energy (EGLE)
Warren District Office
27700 Donald Court
Warren, Michigan 48092

RE: Interim Response Plan
5851 West Jefferson Avenue, Detroit Michigan
Former Revere Copper and Brass
EGLE Site ID No. 82000136
PM Environmental Project No. 01-5303-3-0001

Dear Mr. Owens

Enclosed is a copy of an Interim Response Plan submitted on behalf of Revere Dock, LLC in response to a failure of the bank of the Detroit River at the above-referenced subject property.

This report outlines interim actions to be conducted to evaluate geotechnical conditions and the feasibility of implementing erosion and other onsite controls, and to characterize materials to support the preparation of a Restoration Plan for the river bank.

If you have any questions regarding the information in this report, please contact us at 800-313-2966.

Sincerely,

PM Environmental, Inc.

J. Adam Patton, CHMM
Vice President

Enclosure

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January 24, 2020

Mr. Steve Erickson
Revere Dock, LLC
2217 Lake Avenue North
Muskegon, Michigan 49445

RE: Interim Response Plan
5851 West Jefferson Avenue, Detroit Michigan
Former Revere Copper and Brass
EGLE Site ID No. 82000136
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THIS REPORT WAS COMPLETED FOR REVERE DOCK, LLC, WHO MAY RELY ON THE REPORT'S CONTENTS.

If you have any questions regarding the information in this report, please contact us at 800-313-2966.

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PM Environmental, Inc.

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Enclosure

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1.0 INTRODUCTION AND PURPOSE

On behalf of Revere Dock, LLC, PM Environmental, Inc. (PM) completed this Interim Response Plan for the property located at 5851 West Jefferson Avenue in Detroit, Wayne County, Michigan (Figures 1 and 2), formerly known as the Revere Copper and Brass site.

This plan outlines interim actions to be conducted to evaluate geotechnical conditions and the feasibility of implementing erosion and other onsite controls, and to characterize materials to support the preparation of a Restoration Plan for the river bank.

1.1 Site Description and Background

The subject property is located on the south side of West Jefferson Avenue between South Cavalry Street and Junction Street, and fronts the Detroit River (Figure 1).

Subject Property Description

Consistent with a Nonresidential property use as defined under Michigan Part 201, the subject property is used as a storage yard for aggregate materials and is surrounded by a concrete security wall that is present along the north, east, and west property boundaries, with a security gate and staffed security office located adjacent to the northern property boundary, which prevents public access to the subject property (Figure 2). The Detroit River boarders the subject property to the south.

Surface cover at the subject property consists of concrete driveway/approach/walkway areas to the north, an asphalt parking area to the west and areas of seeded topsoil and landscaping along the northern property boundary. The remainder of the subject property is covered with compacted gravel, including the majority of the area of the bank failure. Some areas along the southern area of the subject property where the bank failure occurred contain surface cracking that have not been filled with gravel due to geotechnical concerns associated with the added weight of a gravel blanket in that area. However, that area of the subject property has been isolated with temporary fencing to prevent access. An additional gravel berm was also installed along the southern boundary of the bank failure area where water has accumulated, to further control erosion and provide sedimentation control (refer to Figure 2).

Background

Standard and other historical records document that the subject property was initially developed prior to 1908 with several commercial and industrial buildings. Specifically, the property was developed with an automotive machine shop in the northern portion, and the southern and western portions were developed by Michigan Copper and Brass, later known as Revere Copper and Brass. The northern portion was historically separate from the Revere Copper and Brass operations and was occupied by rubber manufacturers, automotive machining/manufacturing, tool and die factories, glass factories, and automotive collision repair shops. Historical operations associated with Revere Copper and Brass consisted of rolling, annealing, pickling, drawing, shearing, extrusion, and finishing of copper and brass. Revere Copper and Brass vacated the property in 1985 and the property tax reverted to the City of Detroit in November 1986. All of the former buildings associated with the property were demolished between 1985 and 1995.

The subject property was purchased by Revere Dock, LLC in 2015, with its current use being as a storage yard for aggregate materials, as indicated above.

Part 201 Facility Status

Subsurface investigations have been conducted at the subject property dating back to the 1990s, summaries of which remain on file with the Michigan Department of Environment, Great Lakes, and Energy (EGLE), including the July 14, 2015 Baseline Environmental Assessment (BEA) prepared for Revere Dock, LLC. Those investigations document the presence of various volatile organic compounds (VOCs), polynuclear aromatic compounds (PNAs), and metals in soil, and metals in groundwater exceeding Michigan's Part 201 Generic Cleanup Criteria (GCC), including the Residential and Nonresidential Drinking Water/Drinking Water Protection (DW/DWP) criteria, Groundwater Surface Water Interface/Groundwater Surface Water Interface Protection (GSIP) criteria, and Direct Contact (DC) criteria. No exceedances of other Nonresidential GCC were identified.

In December 2019, site investigations were conducted at the subject property on behalf of the United States Environmental Protection Agency (EPA) by Tetra Tech, Inc. (Tetra Tech), which included a radiation survey, the collection of two onsite surface water samples (RCB-Water-01 and RCB-Water-02) and four surface soil samples (RCB-Soil-01 through RCB-Soil-04). The surface water and soil samples were submitted for analysis of PNAs, polychlorinated biphenyls (PCBs), metals (including uranium and beryllium), and total cyanide.

The results of the 2019 site investigation activities did not identify radiation levels exceeding background levels except for one location (Radiation-01). Various metals concentrations were identified in soil exceeding the Part 201 Nonresidential DWP, GSI, and/or DC cleanup criteria. Uranium concentrations were identified in soil and onsite surface water samples above laboratory method detection limits but below the applicable EPA Industrial Soil Removal Management Levels (RMLs) or EPA Region 4 Acute Exposure Surface Water Ecological Screening Values. Concentrations of the remaining analytes were not detected above the applicable Part 201 Nonresidential cleanup criteria. The results of the December 2019 investigation remain on file with EGLE and the EPA.

Based on the presence of soil and groundwater concentrations at the subject property exceeding the Part 201 Generic Cleanup Criteria, the subject property is a Facility as defined under Michigan Part 201 of 1994, as amended.

1.2 Geology and Hydrogeology

Based on a review of soil boring logs sourced from previous site investigations, geology at the subject property generally consists of sand with varying amounts of clay to between 34.0 and 47.5 feet below ground surface (bgs), underlain by clay to at least 50.0 feet bgs. Some areas of gravel and debris were encountered intermittently at various locations across the subject property at depths ranging between approximately 0.5 and 15.5 feet bgs.

Discontinuous groundwater was identified at depths ranging between approximately 5.0 to 35.0 feet bgs. Groundwater flow direction was calculated to the northwest towards the Johnson Drain, with potential seasonal flow to the southeast towards the Tonquish Drain.

1.3 November 2019 River Bank Failure

A failure of approximately 200-feet of shoreline along the bank of the Detroit River at 5851 West occurred at the subject property on November 26, 2019. The failure resulted in the displacement of soils from the subject property to an area of the Detroit River immediately east of the former shoreline boundary (refer to Section 1.4 below).

An aggregate pile was present in the area at the time of the bank failure incident, which was subsequently removed using excavating equipment and the remaining gravel material was graded over the area to provide erosion control and a barrier to contact with underlying soils. The area where the aggregate pile was removed extends several feet below the surface grade of the surrounding area and subsequently filled with water, forming a pond. No non-aggregate materials were excavated from the area.

G2 Consulting, Group (G2) has been retained to evaluate geotechnical conditions at the subject property, including the area of the bank failure, and actions for restoring the river bank. Initial evaluations conducted by G2 indicate that the river bank is not at risk of further collapse in its present state. Additional geotechnical evaluations will be completed in the failure area by G2, which are summarized in Section 2.3.

Based upon the current stability of the bank and presence of contaminants in soil in the bank failure area, and to avoid further movement of the material or the potential release of contaminated soils/sediments to the river, PM and G2 have recommended that the bank failure material be left in-place until further geotechnical evaluation and characterization of the bank failure material is completed.

1.4 Hydrographic Survey and Location of Bank Failure Material

Hydrographic surveys of the river bottom were completed by Youngs Consulting, LTD (Youngs), Big Rapids, Michigan, in the area of the subject property on September 24, 2019, prior to the bank failure, and again on November 29, 2019. The surveys were completed using a continuous reading precision fathometer operating at 200 kilohertz (KHz) with a 3-degree side mounted transducer.

Depth sounding documentation from the September and November 2019 hydrographic surveys is included in Appendix A. Cross sections referenced to 25-foot grid lines along the shoreline and 10-foot grid lines extending outward into the river from the shoreline were developed by Youngs are also included in Appendix A.

The cross sections include a comparison of pre and post-failure conditions (i.e. bottom depths) and document that the bank failure material extends approximately 400-feet southward from an area located approximately 15-feet north of the northern subject property boundary (i.e. from sounding line 05+25 to sounding line 09+00), and is present at locations between 50 and 115-feet from the shore line (Figure 3). The approximate thickness of the bank failure material ranges from less than a foot to a maximum of 21-feet, with an estimated volume of 9,000 cubic yards. Table 1A in Appendix A includes a summary of bank failure material thicknesses based on the Hydrographic surveys.

2.0 INTERIM RESPONSE ACTIVITIES

This section outlines actions for installing and maintaining engineering controls for to prevent dermal contact exposures, control erosion, evaluate geotechnical conditions, and to characterize materials to support the preparation of a Restoration Plan for the river bank.

The following subsections describe the interim response activities to be performed.

2.1 Fencing

Following the bank failure, that area of the subject property was isolated with temporary fencing to prevent access to the bank failure area to prevent potential dermal contact exposures to subject property occupants. To ensure the continued security of the area, an upgraded fence consisting of 6-foot high, steel chain link material will be installed at the subject property during the week of January 27th. The fence will contain a locked gate to provide authorized access to the bank failure area for investigation or response activities, but will otherwise remain locked at all times.

The fence will be inspected and maintained on a weekly basis with records maintained by Revere Dock. Appendix B contains an inspection log that will be used for the weekly fencing inspections and includes a figure depicting the planned location of the upgraded fence.

Photos of the new fence will be submitted to EGLE along with a figure depicting its as-built configuration, within one week of construction.

2.2 Erosion Controls and Turbidity Curtain Installation

Surface cover at the subject property consists of concrete driveway/approach/walkway areas to the north, an asphalt parking area to the west and areas of seeded topsoil and landscaping along the northern property boundary. The remainder of the subject property is covered with compacted gravel, including the majority of the area of the bank failure. Some areas along the southern area of the subject property where the bank failure occurred contain surface cracking that have not been filled with gravel due to geotechnical concerns associated with the added weight of a gravel blanket in that area. However, that area of the subject property has been isolated with temporary fencing to prevent access. An additional gravel berm was also installed along the southern boundary of the bank failure area where water has accumulated (i.e. south of the pond area), to further control erosion and provide sedimentation control (refer to Figure 2). Appendix C contains photos of the gravel berm.

Approximately 300-linear feet of turbidity control curtains (five-foot curtain depth) with linked surface flotation elements/buoys are present in the water along the southern property boundary, which surround the bank failure area, and are anchored to the river bottom in accordance with manufacturer recommendations. The turbidity control curtains and associated linked surface floatation elements/buoys prevent access to the bank failure area via the water and also act to control and contain potential suspended sediments in addition to reducing wave action in the area. Appendix C contains photos of the installed turbidity control curtains.

Up to 400-linear feet of additional turbidity control curtains with a 20-foot curtain depth are planned to be installed in a secondary boundary beyond the existing turbidity curtains during the week of January 30, 2020. The 20-foot turbidity curtains will provide additional sediment and turbidity control, and will be anchored to the river bottom in accordance with manufacturer

recommendations. The curtain depth will be maintained at least one-foot from the river bottom to prevent disturbing river sediments and the turbidity curtains will be maintained per manufacturer recommendations to ensure their effectiveness.

The 20-foot turbidity curtains will be inspected and maintained on a weekly basis with records maintained by Revere Dock. Appendix B contains an inspection log that will be used for the weekly turbidity curtain inspections.

Photos of the 20-foot turbidity curtains will be submitted to EGLE along with a figure depicting their as-built configuration, within one week of installation.

2.3 Geotechnical Investigation

To define and evaluate existing geotechnical conditions at the subject property, including stability and suitability of potential shoreline restoration alternatives the following geotechnical investigation activities will be completed:

- Four geotechnical soil borings will be advanced within 100 feet of the shoreline to evaluate geotechnical conditions. Each of the soil borings will be advanced to maximum depth of 120 feet using a hollow stem auger drill rig with soil sampling using the Standard Penetration Test Method completed at regular intervals. Field vane shear testing will be completed as required during the geotechnical investigation, with Shelby Tube samples will also collected as determined appropriate by the geotechnical engineer.

  Laboratory testing will be completed to determine the physical characteristics of the subsurface soils. As determined appropriate by the geotechnical engineer, the testing will include determination of the unconfined compressive strength, dry density, natural moisture content, grain-size distribution, organic matter content, consolidation parameters, and soil classification in general accordance with the Unified Soil Classification System.

  Two of the boreholes will be backfilled with grout after completion of drilling. The other two will have geotechnical inclinometers constructed within each borehole (refer to below).

  Non-disposable drilling equipment will be decontaminated between and after sampling using a hot-water power washer and/or hand methods using phosphate-free detergent. Decontamination materials/wastes and drilling spoils generated will be placed in sealed/labeled containers for environmental testing and appropriate disposal.

- Surface monitors will be installed at the subject property, which will act as reference points and will be monitored visually a on a weekly basis using an aerial drone to detect potential visual movement of the bank failure area over time (i.e. weekly).

  It should be noted that surface monitors were installed at the subject property during the week of January 13, 2020, with aerial monitoring completed at that time and during the week of January 20, 2020.

- Install two inclinometers extending to bedrock at the subject property to measure potential lateral deflection of soils and compare the measured deflection with initial baseline

readings over time (i.e. weekly). This process will serve to detect potential movement of the bank failure area over time, including in subsurface zones that the surface monitoring may not detect.

Following completion of the soil borings, a geotechnical investigation report will be prepared outlining the associated results along with recommendations for actions to support shoreline restoration activities, including potential actions necessary for continued geotechnical stability of the bank failure area.

Prior to the release of the geotechnical investigation report, an interim evaluation memorandum will be issued within two weeks of installing the inclinometers, which will include an evaluation of the load-bearing capacity of the bank failure material to be used to determine whether additional shoreline erosion controls (i.e. rip rap or similar) can be supported without risking further movement of the bank failure area. Based on the conclusions of the memorandum, a supplement to this Interim Response Plan will be prepared and submitted to EGLE, United States Army Corps of Engineers (USACE), and the EPA with proposed additional erosion controls, for review and approval, prior to installation.

Records of weekly surface and inclinometer monitoring will also be prepared and will be maintained by Revere Dock.

In the event that visual or inclinometer monitoring detects evidence of soil movement indicative of a potential additional bank failure at the subject property, EGLE, the USACE, and the EPA will be notified within 24 hours of discovery, and additional interim actions will be evaluated/implemented.

2.4 Bank Failure Material and Site Characterization Activities

Restoration of the bank failure area will include removal of the material present within the Detroit River as a result of the failure event, which in turn requires characterization of the material to determine appropriate management, relocation, and/or disposal requirements.

It is anticipated that the bank failure material may be suitable for relocation on the subject property in accordance with Section 20120c of Part 201; therefore, additional soil, groundwater, and onsite surface water sampling will be conducted within the (on land) bank failure area to further document current concentrations and to determine whether the river material and onsite soils are sufficiently similar for onsite relocation to occur.

Additionally, it is expected that sediments underlying the bank failure material will be disturbed during removal of the bank failure material and that management, relocation and/or disposal of sediment material will be required. Therefore, sediments underlying the failure material will be characterized to determine requirements for managing the sediment material and to support preparation and submittal of a Joint Permit Application for construction activities to the USACE and EGLE as part of the Restoration Plan.

Characterization activities planned for the river and on land bank failure areas are outlined in Sections 2.4.1 and 2.4.2 below.

2.4.1 Bank Failure Material and Underlying Sediment Characterization

Incremental sampling methodology (ISM) will be used to characterize bank failure materials within the river and to characterize underlying sediments to determine appropriate management requirements and to support development of a plan to relocate or dispose of those materials, as applicable.

As indicated in Section 1.4, hydrographic surveys of the river bottom before and after the bank failure event documented the vertical and horizontal extent of the bank failure material, the thickness of the bank failure material, and the depths at which pre-failure river bottom sediments are present. That information was used to develop the ISM sampling plan outlined below.

ISM is a structured composite sampling and processing protocol that reduces data variability and provides a reasonably unbiased estimate of mean contaminant concentrations for a target volume of soil being sampled. Target soil volumes are defined as decision units (DUs). ISM provides unbiased representative soil concentrations for DUs by collecting numerous increments of soil (typically 30 to 100 or more increments) that are combined, processed, and subsampled according to specific ISM protocols to create replicate samples for laboratory processing and analysis. Procedures for locating, collecting, processing, and analyzing three ISM replicate samples from each DU will be used from ASTM methods D6323, D5956, D6044, ITRC Technical and Regulatory Guidance for Incremental Sampling Methodology, February 2012 (ITRC 2012 ISM Guidance Document), and EGLE Incremental Sampling Methodology and Applications Guidance (January 2018).

Restoration of the river bank will include the removal of bank failure material sourced from the subject property, with over excavation of underlying sediment (up to 5-feet of underlying sediment) also required to remove the bank failure material. Therefore, two decision units (Figure 4) were defined within the bank failure area of the river, including the bank failure material (DU-1) and five feet of sediment underling the bank failure material (DU-2).

The DU-1 and DU-2 area will be gridded using 25-foot spacing (Figure 4). Of the 76 grid nodes, 55 have at least one foot of bank failure material (Table 1A in Appendix A). Therefore, a binary random number generator was used to select 27 nodes within the grid area where river bank collapse material is at least one foot thick, at which core sampling will be conducted.

Within each sample area, core samples will be collected to a maximum depth of 35-feet below river surface elevation. The core sampling will be completed using sonic drilling methods that include a spud-barge barge mounted sonic drill rig using 6-inch diameter dual-tube tooling consisting of a 6-inch diameter outer casing and a 4-inch diameter core sampler equipped with polyethylene liners.

The sample areas will be located using a global positioning satellite receiver, with each sample also correlated to the 25-foot grid used in the September and November 2019 hydrographic surveys.

The core samples will be logged for soil classification and verification of subsurface geologic conditions with soils classified according the Unified Soil Classification System, with soil samples collected on a continuous basis using the sonic rig core sampler.

The DU-1 area is located immediately east of the former (eastern) dock boundary of the subject property, occupies an approximate 400-foot long by 115-foot wide area, and contains approximately 9,000 cubic yards of material that varies in thickness from less than one foot to a maximum of 21-feet, with vertical boundaries varying from 13-feet to 29-feet below river surface elevation.

Up to 43 25-gram increments will be collected from each one to two foot thickness of bank failure material at each core sample location to create three replicate samples from DU-1 (ISM-1A, ISM-1B, and ISM-1C; 129 increments total) that will be submitted for laboratory processing and analysis in accordance with ITRC and EGLE guidance and the ASTM procedures referenced above.

The DU-2 area (Figure 4) is comprised of 5-feet of sediments immediately underlying the bank failure material and contains approximately 6,100 cubic yards of sediment material that is located up to 34-feet below river surface elevation.

DU-2 will be sampled using the same core sample locations as DU-1 Up to 45 25-gram increments of the sediment material will be collected at each core sample location to create three replicate samples from DU-2 to create three replicate samples (ISM-2A, ISM-2B, and ISM-2C; 135 increments total) that will be submitted for laboratory processing and analysis in accordance with ITRC and EGLE guidance and the ASTM procedures referenced above.

Up to 129 increments will be collected from the 27 sample areas with 43 increments used to process and create each replicate sample (ISM-1A, ISM-1B, and ISM-1C) for DU-1. Up to 135 increments will also be collected from the 27 sample areas with 45 increments used to process and create each replicate sample (ISM-2A, ISM-2B, and ISM-2C) for DU-2. In addition to each increment sample, 9.0 to 10.0 grams will be collected from each increment zone for VOC processing and analysis. The VOC increments will be weighed, recorded, and placed in a one-liter wide-mouth sample jar, pre-weighed, pre-labeled (ISM-1A, ISM-1B, and ISM-1C; ISM-2A, ISM-2B, and ISM-2C), and pre-filled with methanol from the laboratory for ISM analysis of VOCs.

Following collection of the increments from the 27-sample locations within each decision unit, the samples will be field processed by combining the increments for each replicate sample into new, clean, five-gallon buckets (one bucket per replicate sample: ISM-1A, ISM-1B, and ISM-1C; ISM-2A, ISM-2B, and ISM-2C). All non-soil objects such as vegetation, stones, debris, etc. will be removed from the combined samples with the remaining soils sieved through a #5 sieve (0.157 inches / 4.0 mm). The sieved soils will then be mixed for homogenization. Once the sieved soils are properly homogenized, approximately 1.5 kilograms of soil, in ten groups of 150 grams each, will be extracted and placed in a one-liter, glass, wide-mouth, jar. The sieved, homogenized source soil will be mixed for homogenization after each group of five tablespoons are extracted.

The ISM samples will be submitted to an independent laboratory for analysis of the following parameters:

DU-1 Samples

- VOCs using EPA Method 5035/8260B
- PNAs via EPA Method 8270C
- PCBs using EPA Method 8082

- Michigan-10 Metals, nickel, uranium, and thorium using EPA Methods 6020/7471
- TCLP VOCs using EPA Methods 1311/8260B
- TCLP SVOCs using Methods 1311/8270C
- TCLP RCRA-8 Metals using Methods 1311/6020/7471
- pH using EPA Method 9045D

DU-2 Samples

- VOCs using EPA Method 5035/8260B
- PNAs via EPA Method 8270C
- PCBs using EPA Method 8082
- Michigan-10 Metals, nickel, uranium, and thorium using EPA Methods 6020
- TCLP VOCs using EPA Methods 1311/8260B
- TCLP SVOCs using Methods 1311/8270C
- TCLP RCRA-8 Metals using Methods 1311/6020/7471
- pH using EPA Method 9045D
- Total Phosphorous via Method 4500
- Biochemical Oxygen Demand

The laboratory will process the ISM samples in accordance with ISM laboratory analytical procedures developed by ITRC and ASTM. Processing includes, but is not limited to: cake preparation, drying, sieving, cake subdivision, increment selection and aliquot preparation following ITRC and ASTM protocol for ISM laboratory preparation and sample analysis.

The results of the ISM sampling activities will be compared the Cleanup Criteria Requirements for Response Activity, using the Part 201 GCC, EPA Industrial Soil RMLs, toxicity characteristic concentrations under 40 CFR 261.24, and Toxic Substance Control Act (TSCA) Subpart D criteria.

A summary of the ISM sampling activities and the associated analytical results will be prepared and included in the Restoration Plan.

2.4.2 Bank Failure Area Soil and Groundwater Soil Sampling

Previous site investigations documented concentrations of various petroleum VOCs, PNAs and metals in soil and groundwater in or adjacent to the bank failure area that exceed the Part 201 Nonresidential DW/DWP, GSI/GSIP and/or DC cleanup criteria.

Prior to completing restoration activities and to evaluate current concentrations in the bank failure area to facilitate potential onsite relocation of the bank failure material in accordance with Section 20120c of Part 201, additional soil and groundwater sampling will be conducted.

These activities will include the advancement of up to three soil borings (SB-12 through SB-14) to a maximum depth of 20.0 feet using a Geoprobe® drill rig, or equivalent (Figure 4). If groundwater is encountered, up to three (3) 2” diameter polyvinyl chloride (PVC) monitoring wells would also be installed to intersect the groundwater table, using the Geoprobe® drill rig.

The locations of the soil borings will be recorded using a hand-held GPS receiver. Monitoring well top of casing elevations will be surveyed using a total station relative to an onsite benchmark for use in documenting localized groundwater flow (including in the onsite pond area).

Soil sampling will be performed for soil classification and verification of subsurface geologic conditions, with soil samples collected on a continuous basis using a 5-foot long macro-core sampler.

Soils collected from discrete sample intervals will be screened using a photoionization detector (PID) to determine if VOCs are present, a handheld x-ray fluorescence (XRF) analyzer calibrated to detect and quantify uranium and thorium concentrations, and a Ludlum Model 3 Radiation detector. Up to two biased soil samples will be collected from above the water table (if present) in each of the soil borings for laboratory analysis based upon the highest PID reading, XRF concentration, or radiation level, or in the absence or indication of contamination using those screening methods, visual/olfactory evidence of impact or a change in geology.

If present, groundwater samples will be collected via the monitoring wells installed at each soil boring location. Each will consist of a new well assembly, consisting of a 5-foot 0.010-inch slot, schedule 40, PVC screen and PVC casing lowered into the borehole to intersect the water table. After the screen for the well is set to the desired depth, an artificial sand pack or natural sands will be allowed to collapse around the well screen. The groundwater samples will then be collected at low flow, with care taken to avoid the potential for cross contamination between the samples and to prevent loss of volatiles to the atmosphere.

During drilling operations, the drilling equipment will be cleaned to minimize the possibility of cross contamination. These procedures include cleaning equipment with a phosphate free solution (i.e., Alkanox®) and rinsing with distilled water after each sample collection. Drilling and sampling equipment will also be cleaned in this manner prior to initiating field activities.

Decontamination materials/wastes and drilling spoils generated will be placed in sealed/labeled containers for environmental testing and appropriate disposal.

The soil and groundwater samples will be submitted for laboratory analysis of the following parameters:

<u>Soil Samples</u>

- VOCs using EPA Method 5035/8260B
- PNAs via EPA Method 8270C
- PCBs using EPA Method 8082
- Michigan-10 Metals, nickel, uranium, and thorium using EPA Methods 6020/7471

<u>Groundwater and Onsite Surface Water Samples</u>

- VOCs using EPA Method 8260B
- PNAs via EPA Method 8270C
- Michigan-10 Metals, nickel, uranium, and thorium using EPA Methods 6020/7470

The results of the soil, groundwater, and soil gas sampling activities will be compared the Cleanup Criteria Requirements for Response Activity, using the Part 201 GCC, EPA Industrial Soil RMLs, toxicity characteristic concentrations under 40 CFR 261.24, and TSCA Subpart D criteria.

A summary of the sampling activities and the associated analytical results will be prepared and included in the Restoration Plan.

3.0 RESTORATION PLAN PREPARATION

Following the Geotechnical Evaluation and Bank Failure Material and Site Characterization activities, a Restoration Plan will be prepared and submitted for EGLE review and approval, which will include the following components:

- Geotechnical evaluation and feasibility analysis for permanent bank restoration;
- Description of the selected bank restoration action, including approach and design drawings;
- A summary of applications, permits or approvals to be obtained from relevant regulatory agencies/authorities prior to initiating bank restoration activities;
- Procedures for removal, management, relocation, placement, and/or disposal of collapse material; sediment, and water removed from the collapse area; and restoration of the collapse area. This will include management procedures for characterizing, handling, temporarily storing (if needed) and disposal of contaminated media;
- Engineering controls and notices required to comply with due care obligations for materials relocated to onsite locations (if any), and post restoration conditions;
- Reporting and regulatory submittals, including as-built documentation;
- Preparation of a post-construction Documentation of Due Care Compliance report;
- Schedule for implementation.

4.0 SCHEDULE

The activities outlined in this Interim Response Workplan will be conducted in accordance with the following schedule:

Proposed Dates of Key Milestones	
Activity	**Schedule**
Onsite Activities (Erosion Controls and Due Care Inspections)	
Install 5-foot Turbidity Curtains	Complete
Install Updated Fence	Week of January 27, 2020
Inspections of Updated Fence	Weekly Following Installation
Install 20-foot Turbidity Curtains	Week of January 27, 2020[1]
20-foot Turbidity Curtain Inspections	Weekly Following Installation
Erosion Control Supplement	Within One Week of Interim Geotechnical Evaluation Memorandum
Geotechnical Activities	
Install Visual Geotechnical Surface Monitors	Complete
Visual Geotechnical Monitoring and Inclinometer Monitoring	Weekly Weekly Following Inclinometer Installation
Geotechnical Investigation Field Activities (Soil Borings and Inclinometer Installation)	Start: February 5, 2020 (requires 5-7 business days)
Geotechnical Evaluation Memorandum (Load Bearing Capacity Summary for Erosion Controls)	Two Weeks Following Inclinometer Installation
Geotechnical Investigation Report	Three Weeks Following Inclinometer Installation
Bank Failure Material and Site Characterization Activities	
On-Land Soil, Groundwater, and Surface Water Sampling Field Activities	Start: Week of February 3, 2020 (requires 2 business days)
ISM Sampling Field Activities	Start: Week of February 10, 2020[1] (requires 7-10 business days)
On-Land Soil, Groundwater, and Surface Water Sampling Summary Report	Two Weeks Following Receipt of Analytical Results
ISM Sampling Report	Two Weeks Following Receipt of Analytical Results
Restoration Plan	
Preparation and Submittal of Restoration Plan Report	March 30, 2020[2]

[1] Estimated timeline is dependent upon river conditions including ice cover.

[2] Estimated timeline is dependent upon completion of environmental and geotechnical field activities in February as outlined above.

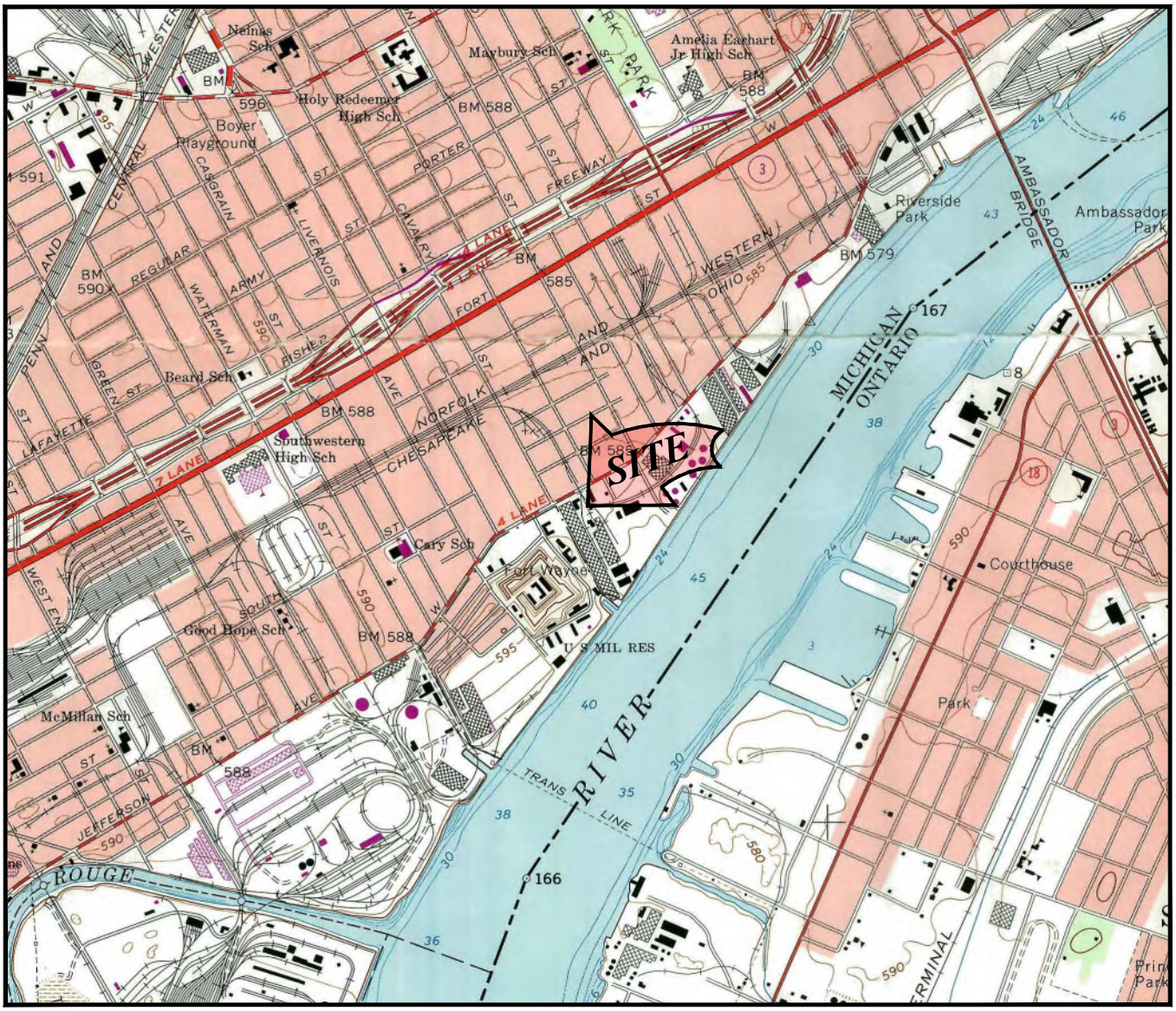
If you have questions regarding this Interim Response Plan, please contact PM at 800-313-2966.

REPORT PREPARED BY:
PM Environmental, Inc.

J. Adam Patton, CHMM
Vice President

Figures

PM ENVIRONMENTAL Environmental & Engineering Services



MICHIGAN QUADRANGLE LOCATION

WAYNE COUNTY

SCALE 1:24,000

1 MILE 1/2 MILE 0 1 MILE

FIGURE 1

PROPERTY VICINITY MAP

USGS, 7.5 MINUTE SERIES

DETROIT, MI QUADRANGLE, 1968. PHOTO REVISED 1973 & 1980.

PM ENVIRONMENTAL | Environmental & Engineering Services

PROJ: 5851 WEST JEFFERSON AVENUE DETROIT, MI

THIS IS NOT A LEGAL SURVEY

VERIFY SCALE 0 2,000'

IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

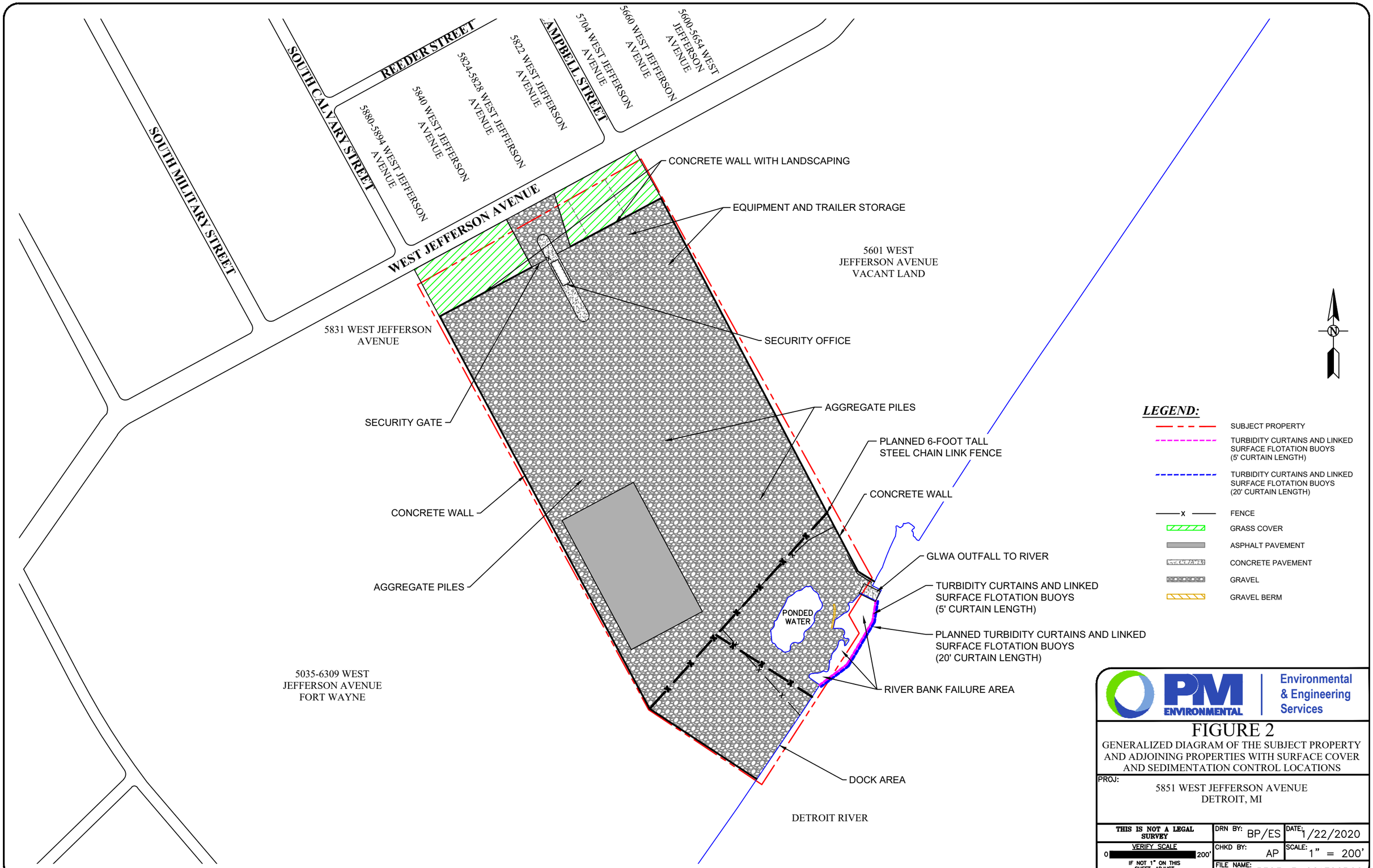
DRN BY: ES/CS/BP

DATE: 1/10/2020

CHKD BY: RF/AP

SCALE: 1" = 2,000'

FILE NAME: 01-5303-3-001F01R00



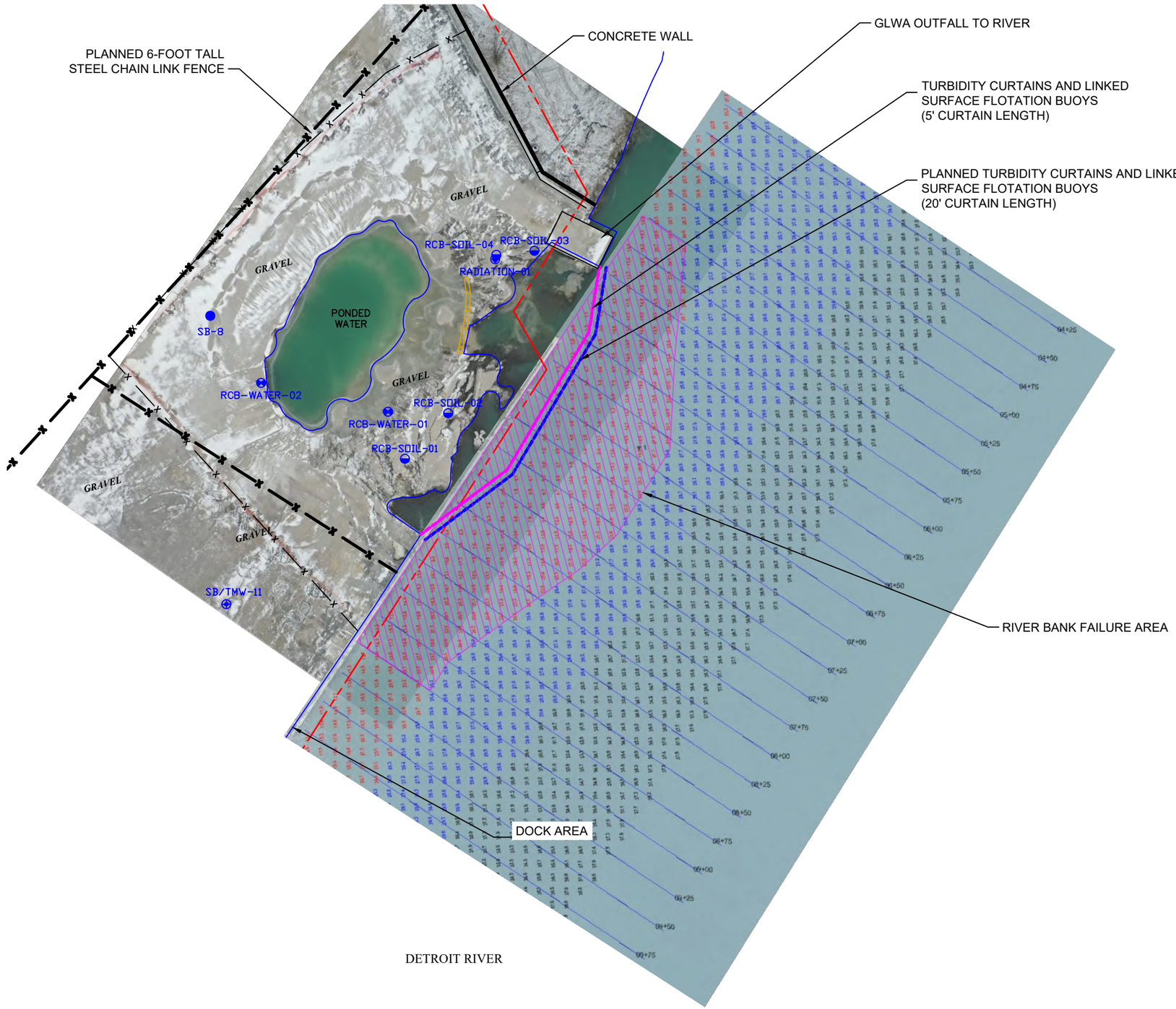
PM ENVIRONMENTAL | Environmental & Engineering Services

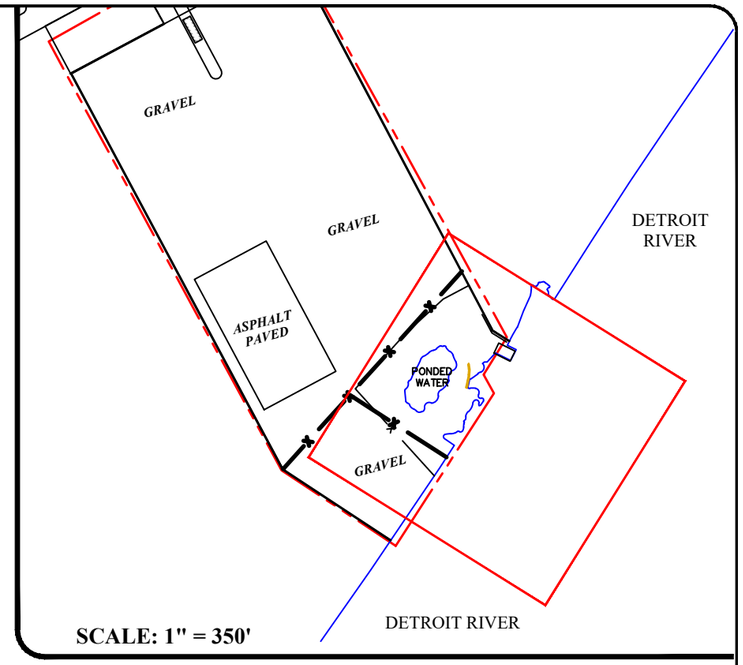
FIGURE 2

GENERALIZED DIAGRAM OF THE SUBJECT PROPERTY AND ADJOINING PROPERTIES WITH SURFACE COVER AND SEDIMENTATION CONTROL LOCATIONS

PROJ:
5851 WEST JEFFERSON AVENUE
DETROIT, MI

THIS IS NOT A LEGAL SURVEY	DRN BY: BP/ES	DATE: 1/22/2020
VERIFY SCALE 0 — 200' IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	CHKD BY: AP	SCALE: 1" = 200'
	FILE NAME: 01-5303-3-001F00R00	





LEGEND:

- SUBJECT PROPERTY
- TURBIDITY CURTAINS AND LINKED SURFACE FLOTATION BUOYS (5' CURTAIN LENGTH)
- TURBIDITY CURTAINS AND LINKED SURFACE FLOTATION BUOYS (20' CURTAIN LENGTH)
- FENCE
- GRAVEL BERM
- EXTENT OF DISPLACED MATERIAL IN RIVER DUE TO RIVER BANK FAILURE
- SOIL BORING
- SOIL BORING / TEMPORARY MONITORING WELL
- TERRA TECH SOIL SAMPLE LOCATION
- TERRA TECH WATER SAMPLE LOCATION
- TERRA TECH RADIATION MONITORING LOCATION

N

NOTE: HYDROGRAPHIC SURVEY GRID ADOPTED FROM YOUNG'S CONSULTING, INC NOVEMBER 29, 2019 HYDROGRAPHIC SURVEY

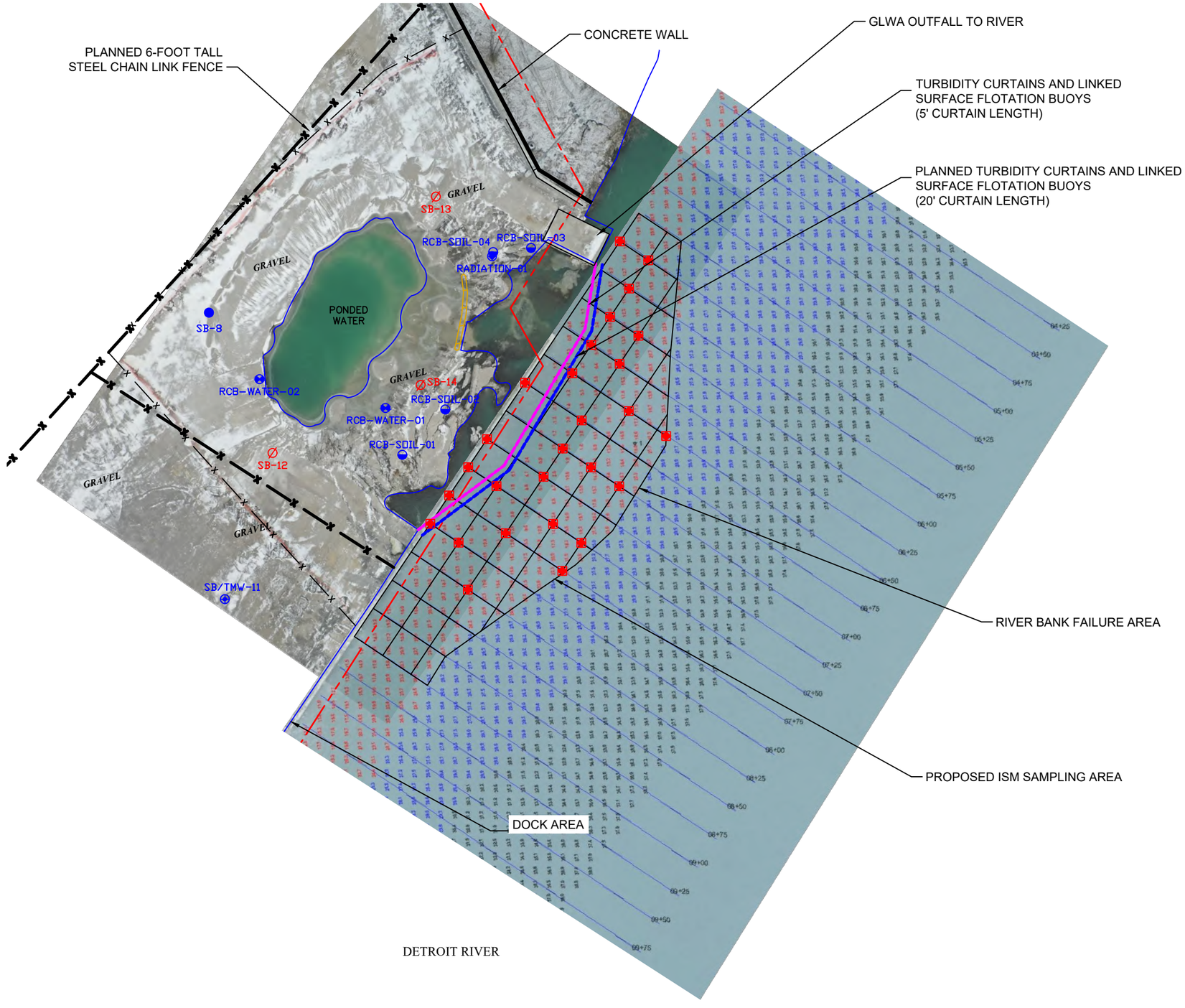
PM ENVIRONMENTAL | Environmental & Engineering Services

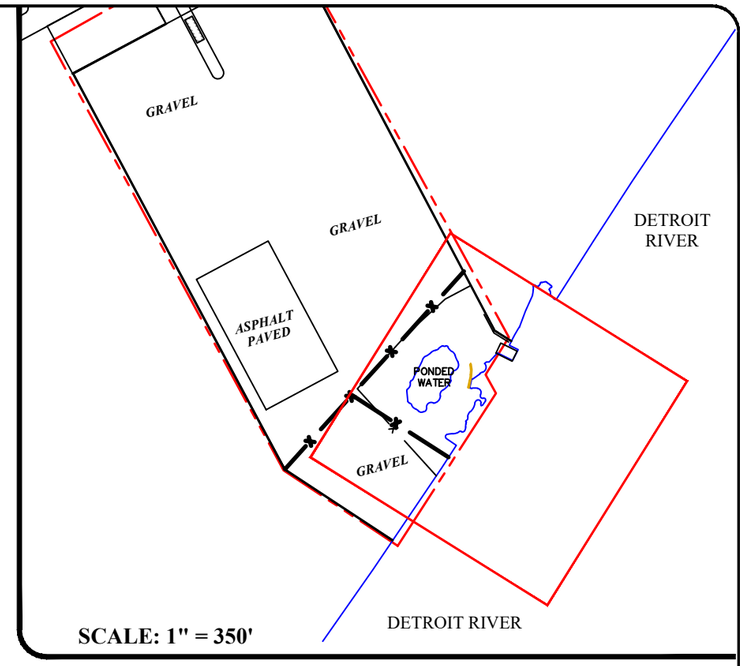
FIGURE 3

DETAIL OF RIVER BANK FAILURE AREA WITH HYDROGRAPHIC SURVEY GRID

PROJ:
5851 WEST JEFFERSON AVENUE
DETROIT, MI

THIS IS NOT A LEGAL SURVEY	DRN BY: BP/ES	D-TE: 1/22/2020
VERIFY SC-LE 0 80' IF NOT 1" ON THIS SHEET, -DJUST SC-LES -CCORDINGLY.	CHKD BY: AP	SC-LE: 1" = 80'
	FILE N-ME: 01-5303-3-001F00R00	





LEGEND:

- SUBJECT PROPERTY
- TURBIDITY CURTAINS AND LINKED SURFACE FLOTATION BUOYS (5' CURTAIN LENGTH)
- TURBIDITY CURTAINS AND LINKED SURFACE FLOTATION BUOYS (20' CURTAIN LENGTH)
- FENCE
- GRAVEL BERM
- SOIL BORING
- SOIL BORING / TEMPORARY MONITORING WELL
- TERRA TECH SOIL SAMPLE LOCATION
- TERRA TECH WATER SAMPLE LOCATION
- TERRA TECH RADIATION MONITORING LOCATION
- PROPOSED SOIL BORING/MONITORING WELL
- PROPOSED ISM SAMPLING LOCATION

NOTE: HYDROGRAPHIC SURVEY GRID ADOPTED FROM YOUNG'S CONSULTING, INC NOVEMBER 29, 2019 HYDROGRAPHIC SURVEY

PM ENVIRONMENTAL | Environmental & Engineering Services

FIGURE 4

PROPOSED SAMPLING LOCATION MAP

PROJ:

5851 WEST JEFFERSON AVENUE
DETROIT, MI

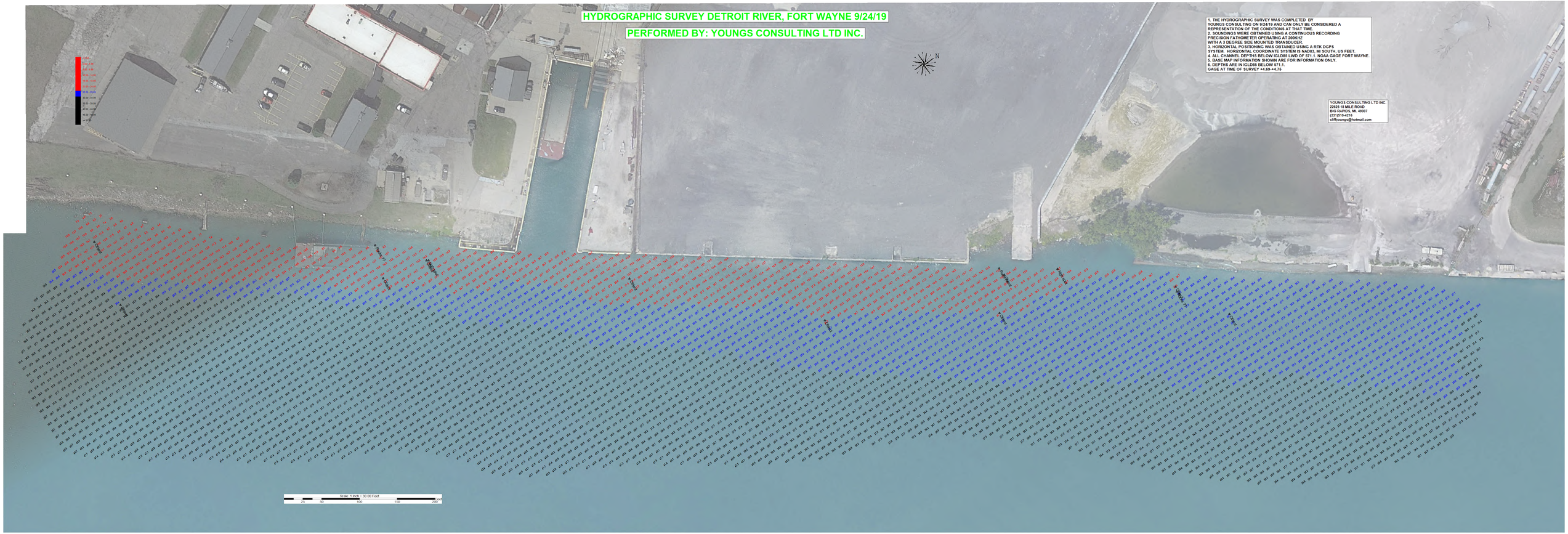
THIS IS NOT A LEGAL SURVEY	DRN BY: BP/ES	D-TE: 1/22/2020
VERIFY SC-LE 0 80' IF NOT 1" ON THIS SHEET, -DJUST SC-LES -CCORDINGLY.	CHKD BY: AP	SC-LE: 1" = 80'
	FILE N-ME: 01-5303-3-001F00R00	

Appendix A

PM ENVIRONMENTAL Environmental & Engineering Services

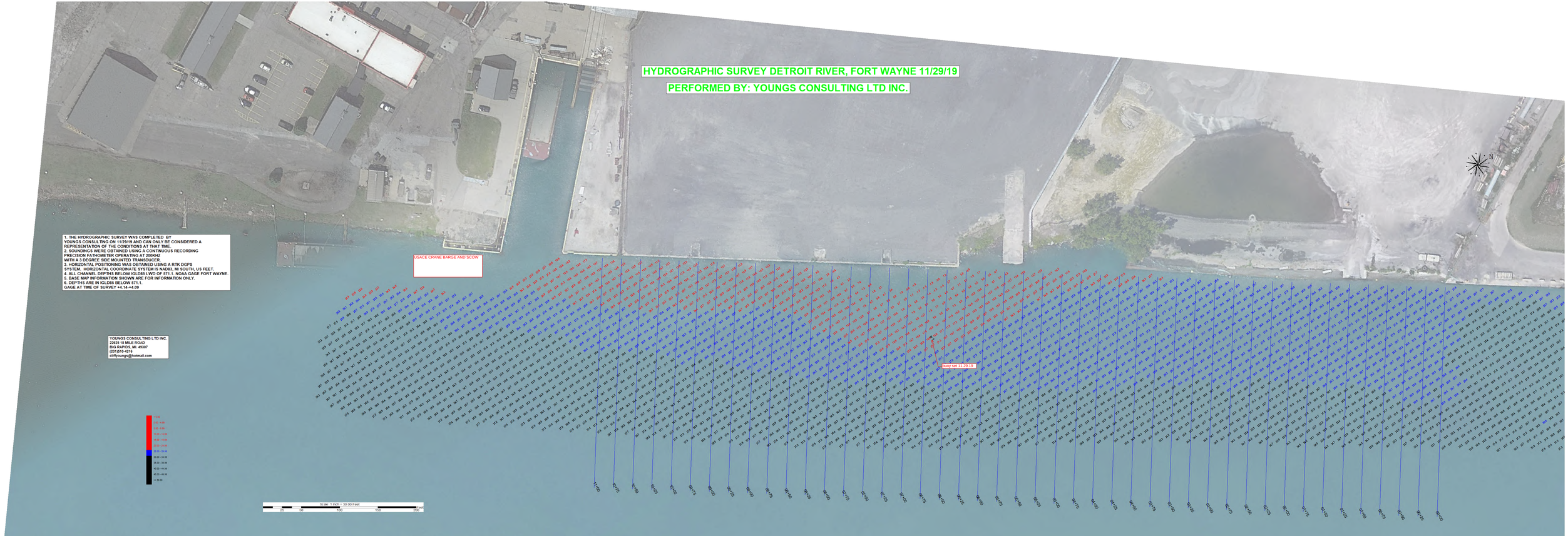
HYDROGRAPHIC SURVEY DETROIT RIVER, FORT WAYNE 9/24/19

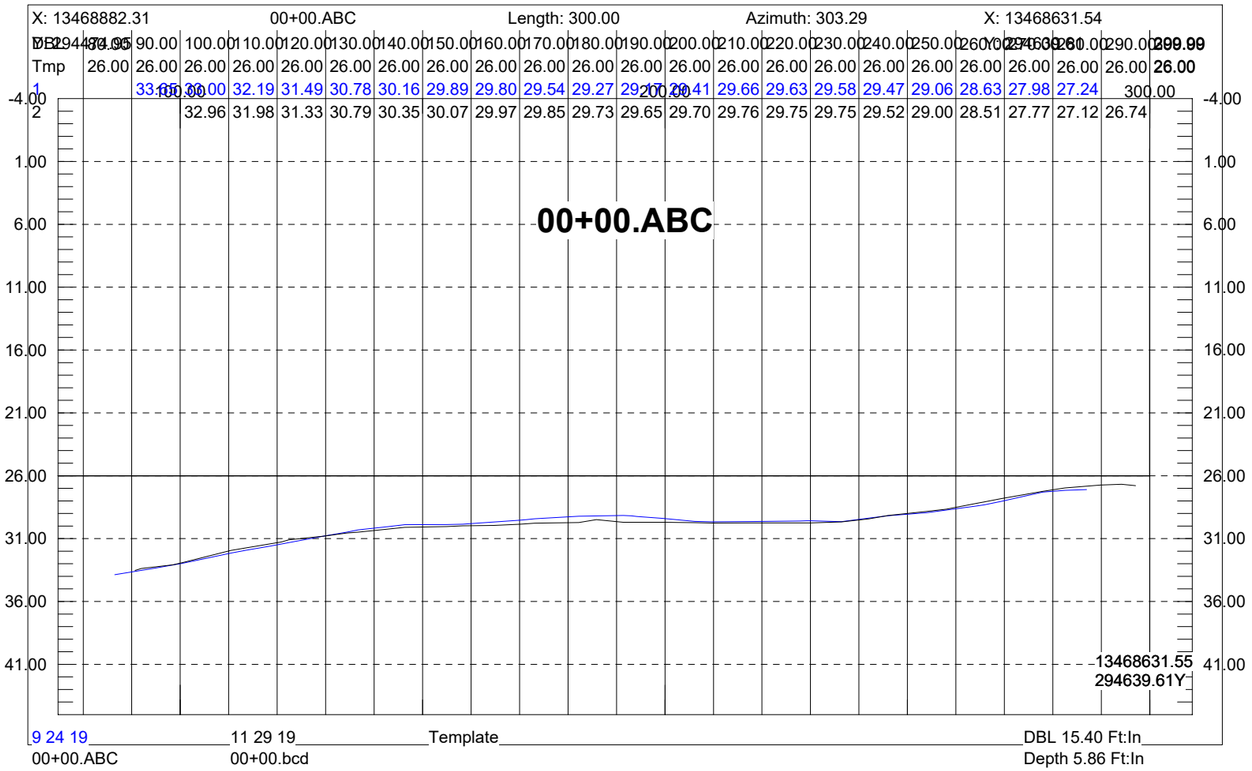
PERFORMED BY: YOUNGS CONSULTING LTD INC.



1. THE HYDROGRAPHIC SURVEY WAS COMPLETED BY YOUNGS CONSULTING ON 9/24/19 AND CAN ONLY BE CONSIDERED A REPRESENTATION OF THE CONDITIONS AT THAT TIME.
2. SOUNDINGS WERE OBTAINED USING A CONTINUOUS RECORDING PRECISION FATHOMETER OPERATING AT 200KHZ WITH A 3 DEGREE SIDE MOUNTED TRANSDUCER.
3. HORIZONTAL POSITIONING WAS OBTAINED USING A RTK DGPS SYSTEM. HORIZONTAL COORDINATE SYSTEM IS NAD83, MI SOUTH, US FEET.
4. ALL CHANNEL DEPTHS BELOW IGLD85 LWD OF 571.1, NOAA GAGE FORT WAYNE.
5. BASE MAP INFORMATION SHOWN ARE FOR INFORMATION ONLY.
6. DEPTHS ARE IN IGLD85 BELOW 571.1.
GAGE AT TIME OF SURVEY +4.69-+4.75

YOUNGS CONSULTING LTD INC.
23425 18 MILE ROAD
BIG RAPIDS, MI. 49307
(231)510-4216
cliffyoungs@hotmail.com


HYDROGRAPHIC SURVEY DETROIT RIVER, FORT WAYNE 11/29/19
PERFORMED BY: YOUNGS CONSULTING LTD INC.
1. THE HYDROGRAPHIC SURVEY WAS COMPLETED BY YOUNGS CONSULTING ON 11/29/19 AND CAN ONLY BE CONSIDERED A REPRESENTATION OF THE CONDITIONS AT THAT TIME.
2. SOUNDINGS WERE OBTAINED USING A CONTINUOUS RECORDING PRECISION FATHOMETER OPERATING AT 200KHZ WITH A 3 DEGREE SIDE MOUNTED TRANSDUCER.
3. HORIZONTAL POSITIONING WAS OBTAINED USING A RTK DGPS SYSTEM. HORIZONTAL COORDINATE SYSTEM IS NAD83, MI SOUTH, US FEET.
4. ALL CHANNEL DEPTHS BELOW IGLD85 LWD OF 571.1. NOAA GAGE FORT WAYNE.
5. BASE MAP INFORMATION SHOWN ARE FOR INFORMATION ONLY.
6. DEPTHS ARE IN IGLD85 BELOW 571.1.
GAGE AT TIME OF SURVEY +4.14-+4.09
USACE CRANE BARGE AND SCOW
YOUNGS CONSULTING LTD INC.
22625 18 MILE ROAD
BIG RAPIDS, MI. 49307
(231)510-4216
cliffyoungs@hotmail.com
buoy set 11.29.19
Scale: 1 Inch = 30.00 Feet
0
30
60
150
300
600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00+00.ABC
Length: 300.00
Azimuth: 303.29
X: 13468631.54
Tmp
00+00.ABC
13468631.55
294639.61Y
9 24 19
11 29 19
Template
DBL 15.40 Ft:In
00+00.ABC
00+00.bcd
Depth 5.86 Ft:In

X: 13468868.58 | 00+25.ABC | Length: 299.99 | Azimuth: 303.29 | X: 13468617.82

Y: 294454.05 | Y: 294618.71

DBL	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00
1			34.00	33.21	32.52	32.12	31.33	30.73	30.16	29.85	29.90	29.53	29.68	29.52	28.68	28.72	29.02	28.93	28.28	27.93	27.08	26.42	25.92	25.95	
2					32.77	32.00	31.20	30.87	30.39	29.77	29.54	29.65	29.54	28.97	28.48	28.67	28.80	28.64	28.44	27.79	26.90	26.53	26.22	25.90	

100.00 200.00 300.00

-4.00 1.00 6.00 11.00 16.00 21.00 26.00 31.00 36.00 41.00

00+25.ABC

13468617.82X
294618.71Y

9 24 19
00+25.ABC

11 29 19
00+25.bcd

Template

DBL 16.53 Ft:In
Depth 5.86 Ft:In

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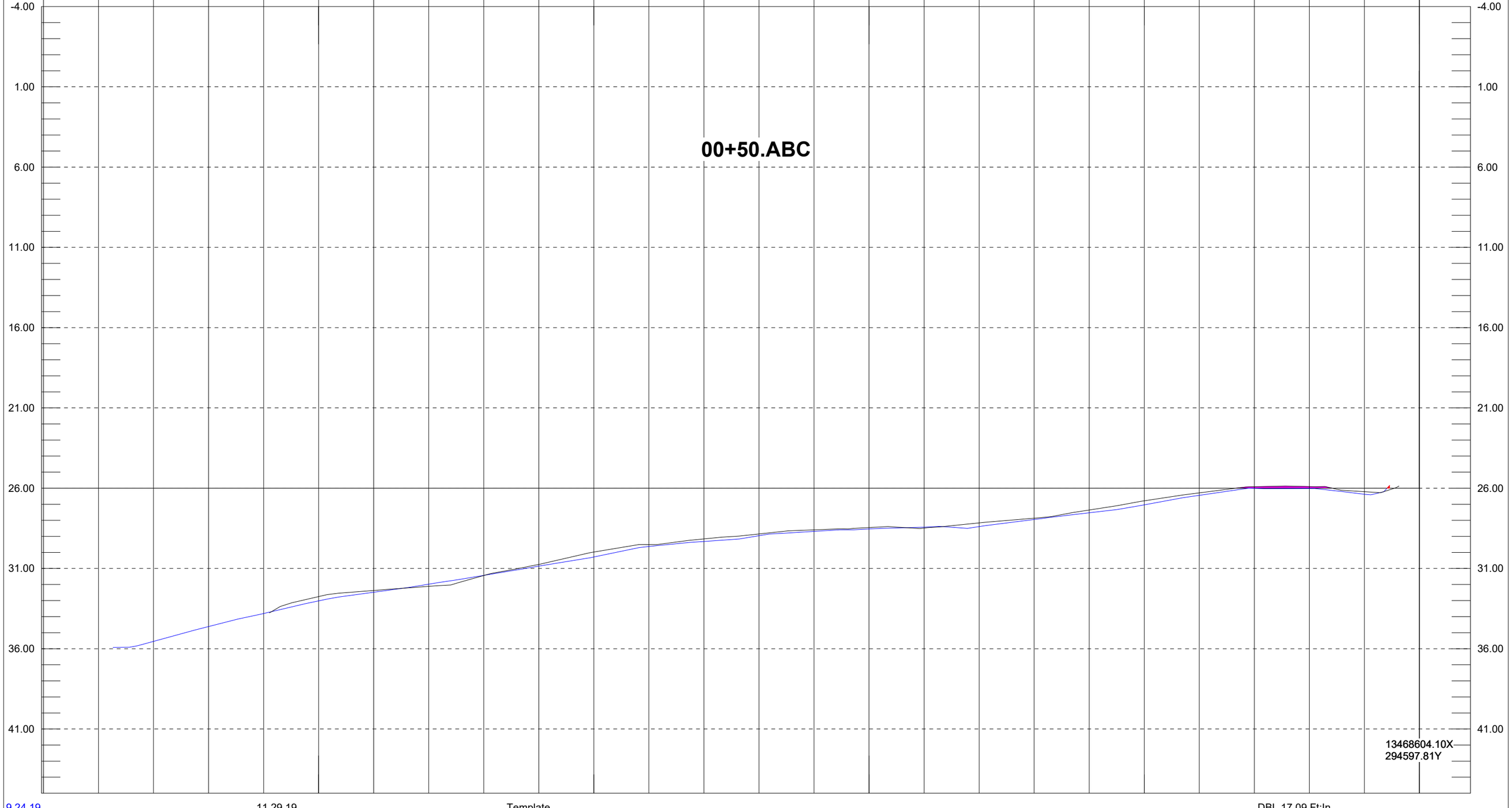
Y: 294433.15 | Y: 294597.81

DBL	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00
1			35.54	34.62	33.80	33.02	32.48	31.98	31.43	30.85	30.29	29.63	29.32	28.96	28.69	28.54	28.43	28.39	27.95	27.53	27.04	26.44	26.01	26.02	26.38	
2						32.75	32.37	32.12	31.44	30.75	29.97	29.52	29.16	28.85	28.59	28.45	28.48	28.16	27.87	27.36	26.78	26.29	25.91	25.90	26.22	

100.00 200.00 300.00

-4.00 1.00 6.00 11.00 16.00 21.00 26.00 31.00 36.00 41.00



9 24 19
00+50.ABC

11 29 19
00+50.bcd

Template

DBL 17.09 Ft:In
Depth 5.86 Ft:In

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Y: 294412.26 | Y: 294576.92

DBL	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~
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1		36.60	36.06	35.38	34.71	34.03	33.25	32.36	31.60	30.91	30.42	30.01	29.61	29.33	28.97	28.91	28.79	28.42	28.17	27.88	27.21	26.70	26.28	26.06	25.88	
2						33.72	32.95	32.36	31.89	31.12	30.30	29.94	29.52	29.25	28.94	28.80	28.60	28.35	27.73	27.59	27.11	26.66	26.29	26.05	25.82	

100.00 200.00 300.00

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00+75.ABC

13468590.38X
294576.92Y

9 24 19
00+75.ABC

11 29 19
00+75.bcd

Template

DBL 17.59 Ft:In
Depth 5.86 Ft:In

X: 13468827.42 | 01+00.ABC | Length: 300.00 | Azimuth: 303.29 | X: 13468576.65

Y: 294391.36 | Y: 294556.02

DBL	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	**26.00**	
1		37.61	36.64	35.86	35.20	34.66	34.08	33.66	33.08	32.12	31.11	30.56	30.13	29.79	29.38	28.89	28.69	28.30	28.18	28.10	27.85	27.44	26.78	26.36	26.41	26.15		
2						34.69	34.16	33.64	32.69	32.09	31.08	30.66	30.24	29.89	29.40	28.85	28.60	28.52	28.30	28.12	27.65	27.11	26.78	26.47	26.46	26.37		
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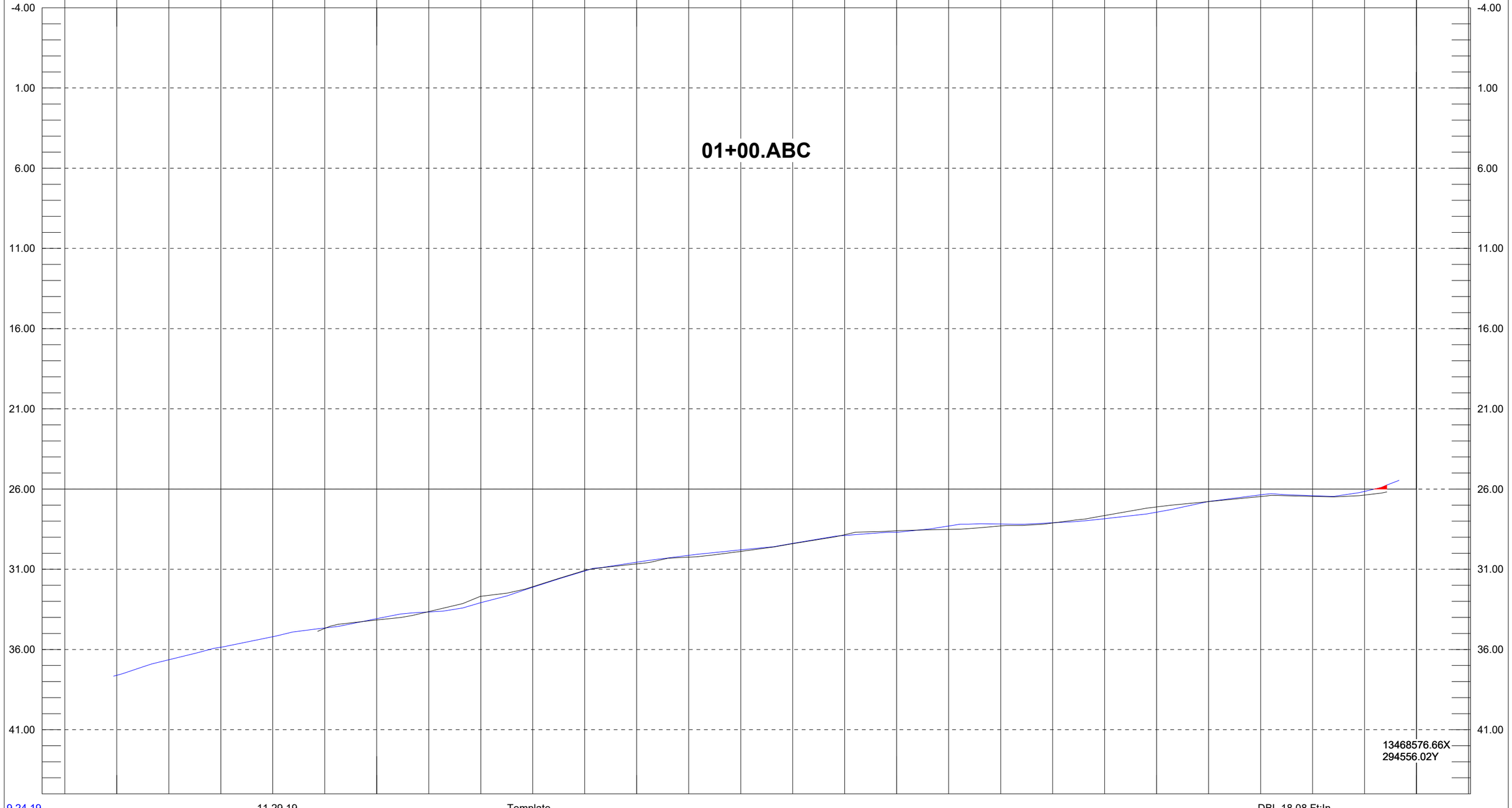

9 24 19
01+00.ABC

11 29 19
01+00.bcd

Template

DBL 18.08 Ft:In
Depth 5.86 Ft:In

X: 13468813.69 | 01+25.ABC | Length: 299.99 | Azimuth: 303.29 | X: 13468562.93

Y: 294370.46 | Y: 294535.12

DBL	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	~~26.00~~	
1			37.74	36.90	36.10	35.36	34.52	33.79	32.89	32.03	31.53	31.06	30.67	29.95	29.62	29.14	28.79	28.46	28.44	28.00	27.98	27.70	27.30	26.87	26.52	26.39	26.31		
2							34.45	33.98	33.23	32.26	31.53	31.25	30.66	30.17	29.62	29.23	28.93	28.72	28.47	28.18	28.06	27.54	27.14	26.84	26.56	26.47	26.36		
								100.00										200.00									300.00		

-4.00
1.00
6.00
11.00
16.00
21.00
26.00
31.00
36.00
41.00

01+25.ABC

13468562.93X
294535.12Y

9 24 19
01+25.ABC

11 29 19
01+25.bcd

Template

DBL 18.58 Ft:In
Depth 5.86 Ft:In

X: 13468799.97 | 01+50.ABC | Length: 299.99 | Azimuth: 303.29 | X: 13468549.21

Y: 294349.56 | Y: 294514.22

DBL	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	~~26.00~~	
1		38.44	37.48	36.70	35.65	34.64	33.79	33.16	32.61	32.22	31.60	31.01	30.53	30.09	29.68	29.33	29.10	28.71	28.34	28.03	27.63	27.24	27.08	26.81	26.60	26.48	26.18		
2							33.90	33.23	32.65	32.06	31.75	31.23	30.57	29.96	29.50	29.18	28.99	28.62	28.21	28.00	27.82	27.22	27.05	26.75	26.50	26.43	26.30		
								100.00										200.00										300.00	

-4.00
1.00
6.00
11.00
16.00
21.00
26.00
31.00
36.00
41.00

01+50.ABC

13468549.21X
294514.22Y

9 24 19 | 11 29 19 | Template | DBL 19.08 Ft:In

01+50.ABC | 01+50.bcd | Depth 5.86 Ft:In

X: 13468786.25 | 01+75.ABC | Length: 299.99 | Azimuth: 303.29 | X: 13468535.49

Y: 294328.67 | Y: 294493.33

DBL	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00
1		39.38	38.40	37.75	36.97	36.06	34.88	34.13	33.33	32.83	32.16	31.76	31.34	30.68	30.24	29.85	29.34	28.90	28.63	28.27	28.00	27.57	27.12	26.85	26.52	26.45	26.62	26.34	
2								34.27	33.48	32.75	32.23	31.74	31.37	30.71	30.30	29.78	29.21	28.81	28.57	28.35	28.02	27.67	27.23	26.74	26.47	26.54	26.70	26.25	

100.00 200.00 300.00

-4.00 1.00 6.00 11.00 16.00 21.00 26.00 31.00 36.00 41.00

01+75.ABC

13468535.49X
294493.33Y

9 24 19
01+75.ABC

11 29 19
01+75.bcd

Template

DBL 19.38 Ft:In
Depth 5.86 Ft:In

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Y: 294307.77 | Y: 294472.43

DBL	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00
1		39.40	38.52	37.60	37.01	36.14	35.16	34.09	33.32	33.12	32.95	32.40	31.94	31.47	30.81	30.02	29.45	28.99	28.65	28.33	27.85	27.49	27.17	26.87	26.73	26.68	26.73	26.59	
2								34.19	33.39	32.81	32.50	32.18	31.98	31.58	30.75	29.94	29.23	28.72	28.63	28.34	27.78	27.45	27.09	26.74	26.62	26.62	26.72	26.71	

100.00 200.00 300.00

-4.00 1.00 6.00 11.00 16.00 21.00 26.00 31.00 36.00 41.00

9 24 19 | 11 29 19 | Template | DBL 19.47 Ft:In

02+00.ABC | 02+00.bcd | Depth 5.86 Ft:In

X: 13468758.81 | 02+25.ABC | Length: 300.00 | Azimuth: 303.29 | X: 13468508.04

Y: 294286.87 | Y: 294451.53

DBL	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00
1		39.30	38.67	37.77	37.10	36.49	35.50	34.47	33.69	33.26	32.89	32.54	32.08	31.60	30.93	30.10	29.26	28.79	28.58	28.29	27.72	27.28	26.95	26.72	26.47	26.59	26.66	26.26	
2								34.23	33.66	33.20	32.79	32.33	32.05	31.69	30.84	29.92	29.18	28.85	28.56	28.14	27.75	27.37	26.90	26.69	26.71	26.78	26.66	26.15	

100.00 200.00 300.00

-4.00 1.00 6.00 11.00 16.00 21.00 26.00 31.00 36.00 41.00

02+25.ABC

13468508.05X
294451.53Y

9 24 19
02+25.ABC

11 29 19
02+25.bcd

Template

DBL 19.55 Ft:In
Depth 5.86 Ft:In

X: 13468745.08 | 02+50.ABC | Length: 299.99 | Azimuth: 303.29 | X: 13468494.32

Y: 294265.97 | Y: 294430.63

DBL	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	**26.00**
1		39.61	38.91	37.95	36.94	36.09	35.29	34.25	33.21	32.69	32.19	31.72	31.02	30.51	30.07	29.50	29.07	28.83	28.51	27.91	27.39	27.00	26.72	26.52	26.40	26.39	26.59	26.24	
2								34.42	33.51	32.83	32.22	31.63	31.11	30.56	30.06	29.41	29.06	28.82	28.45	27.93	27.34	26.87	26.59	26.44	26.36	26.34	26.53	26.08	

100.00 200.00 300.00

-4.00 1.00 6.00 11.00 16.00 21.00 26.00 31.00 36.00 41.00

02+50.ABC

13468494.32X
294430.63Y

9 24 19
02+50.ABC

11 29 19
02+50.bcd

Template

DBL 19.64 Ft:In
Depth 5.86 Ft:In

X: 13468731.36 | 02+75.ABC | Length: 299.99 | Azimuth: 303.29 | X: 13468480.60

Y: 294245.08 | Y: 294409.74

DBL	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	
1		39.77	38.88	37.96	37.11	36.19	35.25	34.34	33.48	32.93	32.50	31.81	31.05	30.29	29.81	29.54	29.15	29.08	28.64	28.02	27.55	27.27	26.67	26.36	26.35	26.63	26.94	26.81		
2								34.44	33.80	33.04	32.58	31.96	31.17	30.34	29.77	29.31	29.11	28.88	28.40	27.84	27.57	27.20	26.55	26.40	26.49	26.78	27.11	26.95		
									100.00										200.00									300.00		

-4.00 / 1.00 / 6.00 / 11.00 / 16.00 / 21.00 / 26.00 / 31.00 / 36.00 / 41.00

02+75.ABC

13468480.60X
294409.74Y

9 24 19
02+75.ABC

11 29 19
02+75.bcd

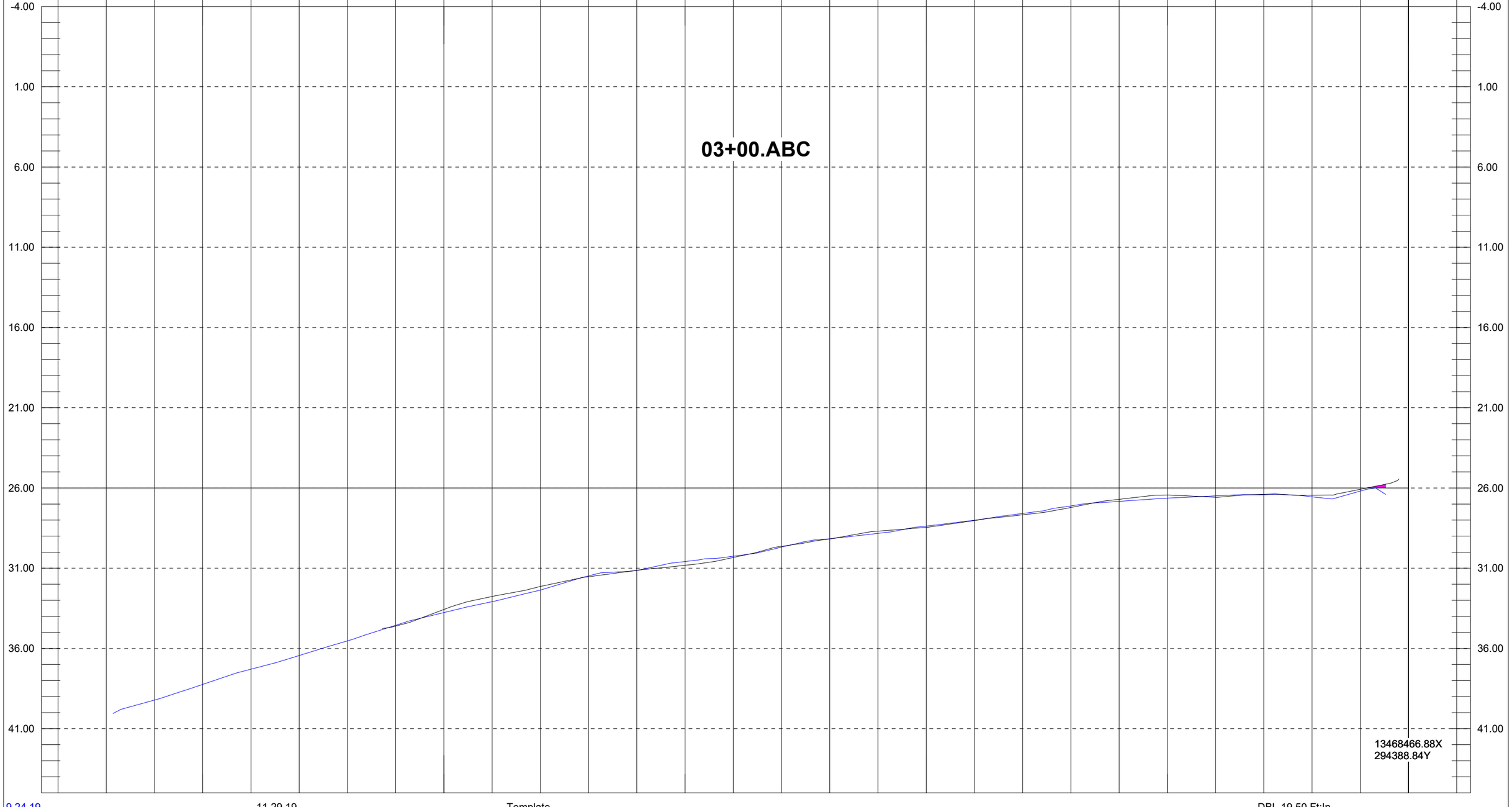
Template

DBL 19.64 Ft:In
Depth 5.86 Ft:In

X: 13468717.64 | 03+00.ABC | Length: 300.00 | Azimuth: 303.29 | X: 13468466.87

Y: 294224.18 | Y: 294388.84

DBL	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	
1			39.22	38.24	37.29	36.44	35.53	34.56	33.76	33.08	32.36	31.48	31.14	30.58	30.26	29.69	29.16	28.83	28.38	28.01	27.59	27.12	26.84	26.63	26.49	26.43	26.55	26.19		
2								34.60	33.57	32.76	32.13	31.53	31.13	30.82	30.33	29.64	29.17	28.69	28.45	28.03	27.67	27.21	26.71	26.44	26.58	26.39	26.45	26.08		
									100.00										200.00									300.00		



9 24 19
03+00.ABC

11 29 19
03+00.bcd

Template

DBL 19.50 Ft:In
Depth 5.86 Ft:In

X: 13468703.92 | 03+25.ABC | Length: 300.00 | Azimuth: 303.29 | X: 13468453.15

Y: 294203.28 | Y: 294367.94

DBL	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	~~26.00~~	
1			39.00	38.19	37.34	36.49	35.39	34.50	33.38	32.48	31.82	31.21	30.70	29.79	29.80	29.45	29.06	28.65	28.41	28.44	28.37	27.46	26.82	26.71	26.66	26.42	26.56	26.33		
2								34.55	33.44	32.43	31.88	31.35	30.78	30.31	30.25	29.70	29.30	28.68	28.23	28.09	27.85	27.33	26.84	26.68	26.71	26.53	26.62	26.50		
									100.00										200.00									300.00		

-4.00 / 1.00 / 6.00 / 11.00 / 16.00 / 21.00 / 26.00 / 31.00 / 36.00 / 41.00

03+25.ABC

13468453.16X
294367.94Y

9 24 19
03+25.ABC

11 29 19
03+25.bcd

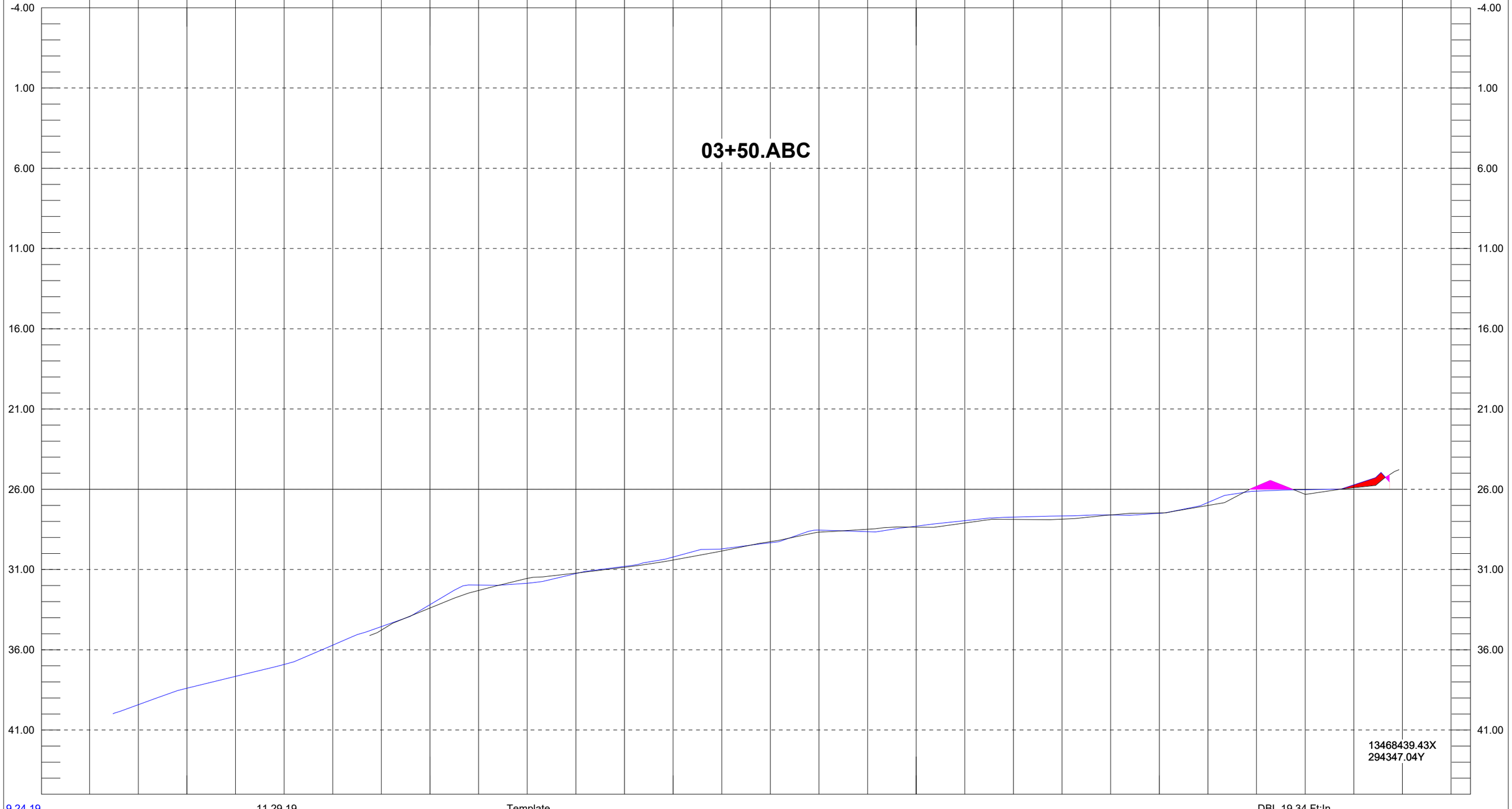
Template

DBL 19.38 Ft:In
Depth 5.86 Ft:In

X: 13468690.19 | 03+50.ABC | Length: 299.99 | Azimuth: 303.29 | X: 13468439.43

Y: 294182.38 | Y: 294347.04

DBL	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	
1		39.42	38.39	37.65	36.91	35.71	34.55	33.19	31.97	31.86	31.25	30.80	30.22	29.72	29.33	28.54	28.64	28.30	27.96	27.73	27.66	27.60	27.50	26.82	26.12	26.03	25.73		
2							34.77	33.40	32.30	31.55	31.22	30.86	30.41	29.85	29.26	28.67	28.49	28.36	28.10	27.87	27.86	27.60	27.47	27.01	25.81	26.31	25.90		
								100.00										200.00										300.00	



9 24 19
03+50.ABC

11 29 19
03+50.bcd

Template

DBL 19.34 Ft:In
Depth 5.86 Ft:In

X: 13468676.47 | 03+75.ABC | Length: 299.99 | Azimuth: 303.29 | X: 13468425.71

Y: 294161.49 | Y: 294326.15

	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
DBL																													
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	**26.00**	
1		39.26	38.57	37.77	36.99	35.90	34.51	33.30	32.39	31.81	31.33	30.67	30.46	30.34	29.80	29.31	28.96	28.74	28.49	28.10	27.74	27.54	27.46	27.38	26.85	26.20	25.51		
2							34.59	33.37	32.35	31.70	31.47	31.18	30.63	30.18	29.81	29.44	29.07	28.85	28.60	27.74	27.52	27.47	27.42	27.41	26.64	26.10	25.41	**24.08**	
								100.00										200.00									300.00		

-4.00 / 1.00 / 6.00 / 11.00 / 16.00 / 21.00 / 26.00 / 31.00 / 36.00 / 41.00

03+75.ABC

13468425.71X
294326.15Y

9 24 19
03+75.ABC

11 29 19
03+75.bcd

Template

DBL 19.04 Ft:In
Depth 5.86 Ft:In

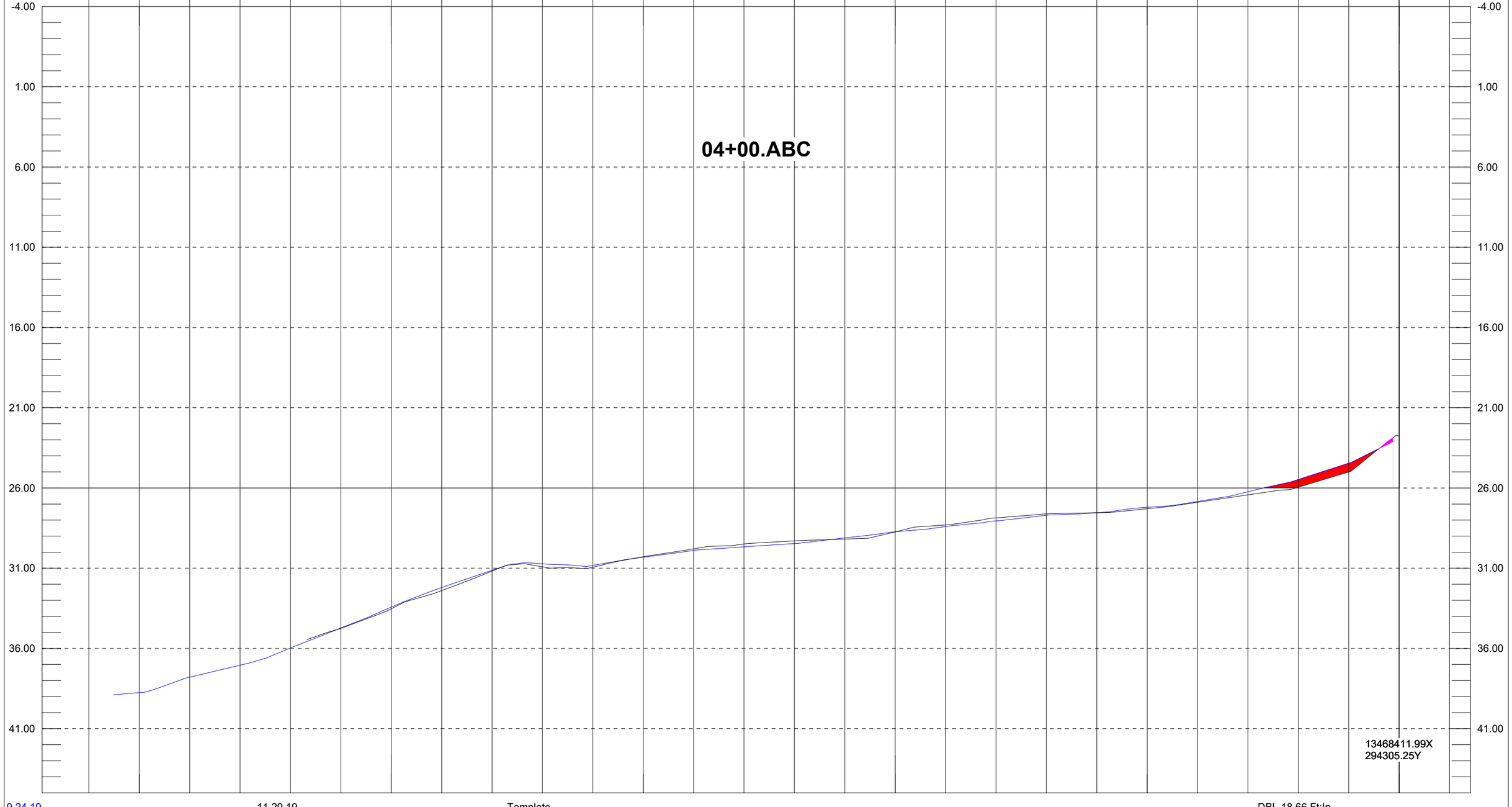
X: 13468662.75 | 04+00.ABC | Length: 299.99 | Azimuth: 303.29 | X: 13468411.99

Y: 294140.59 | Y: 294305.25

DBL	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	
1		38.75	37.79	37.04	35.97	34.72	33.43	32.21	31.13	30.73	30.82	30.32	29.89	29.67	29.46	29.11	28.73	28.40	28.05	27.70	27.55	27.21	26.84	26.23	25.47	24.46		
2						34.75	33.53	32.40	31.18	30.92	30.94	30.29	29.80	29.49	29.30	29.18	28.74	28.30	27.86	27.61	27.54	27.30	26.89	26.43	25.95	25.01	22.76	

100.00 200.00 300.00

-4.00 1.00 6.00 11.00 16.00 21.00 26.00 31.00 36.00 41.00



9 24 19
04+00.ABC

11 29 19
04+00.bcd

Template

DBL 18.66 Ft:In
Depth 5.86 Ft:In

X: 13468649.03 | 04+25.ABC | Length: 300.00 | Azimuth: 303.29 | X: 13468398.26

Y: 294119.69 | Y: 294284.35

DBL	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	**26.00**	
1			37.70	36.83	36.10	34.93	33.81	32.78	31.74	31.03	30.47	29.89	29.40	29.02	28.87	28.65	28.00	27.94	28.11	27.85	27.52	27.40	27.19	26.72	26.08	24.88		
2						34.89	33.97	32.35	31.84	31.31	30.64	29.91	29.39	28.93	28.62	28.59	28.00	27.69	27.66	27.63	27.43	27.25	27.09	26.77	25.84	24.35	**22.32**	
							100.00										200.00									300.00		

-4.00 / 1.00 / 6.00 / 11.00 / 16.00 / 21.00 / 26.00 / 31.00 / 36.00 / 41.00

04+25.ABC

13468398.27X
294284.35Y

9 24 19
04+25.ABC

11 29 19
04+25.bcd

Template

DBL 18.28 Ft:In
Depth 5.86 Ft:In

X: 13468635.31 | 04+50.ABC | Length: 300.00 | Azimuth: 303.29 | X: 13468384.54

Y: 294098.79 | Y: 294263.45

	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
DBL																											
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	**26.00**	
1		37.95	36.98	35.97	35.16	34.19	33.16	32.03	31.02	30.54	29.95	29.86	29.58	28.96	28.63	28.42	27.68	27.54	27.39	27.35	27.35	27.35	26.51	25.96	24.62		
2					35.26	34.56	33.36	32.21	31.18	30.35	29.86	29.54	29.47	29.02	28.72	28.42	27.71	27.57	27.38	27.29	27.46	27.38	26.43	26.08	24.49	**22.32**	

100.00 200.00 300.00

-4.00 1.00 6.00 11.00 16.00 21.00 26.00 31.00 36.00 41.00

04+50.ABC

13468384.55X
294263.45Y

9 24 19
04+50.ABC

11 29 19
04+50.bcd

Template

DBL 17.90 Ft:In
Depth 5.86 Ft:In

X: 13468621.58 | 04+75.ABC | Length: 299.99 | Azimuth: 303.29 | X: 13468370.82

Y: 294077.90 | Y: 294242.56

DBL	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	**26.00**	
1			37.19	36.47	35.73	34.99	33.54	32.17	31.22	30.56	30.08	29.65	29.45	28.86	28.80	28.57	28.00	27.68	27.51	27.48	27.35	26.95	26.27	25.34	24.04		
2					36.12	35.29	34.05	32.26	31.15	30.44	29.96	29.65	29.50	28.94	28.77	28.50	28.14	27.76	27.59	27.34	27.05	26.75	26.31	25.55	23.99	**21.09**	

100.00 200.00 300.00

-4.00
1.00
6.00
11.00
16.00
21.00
26.00
31.00
36.00
41.00

04+75.ABC

13468370.82X
294242.56Y

9 24 19
04+75.ABC

11 29 19
04+75.bcd

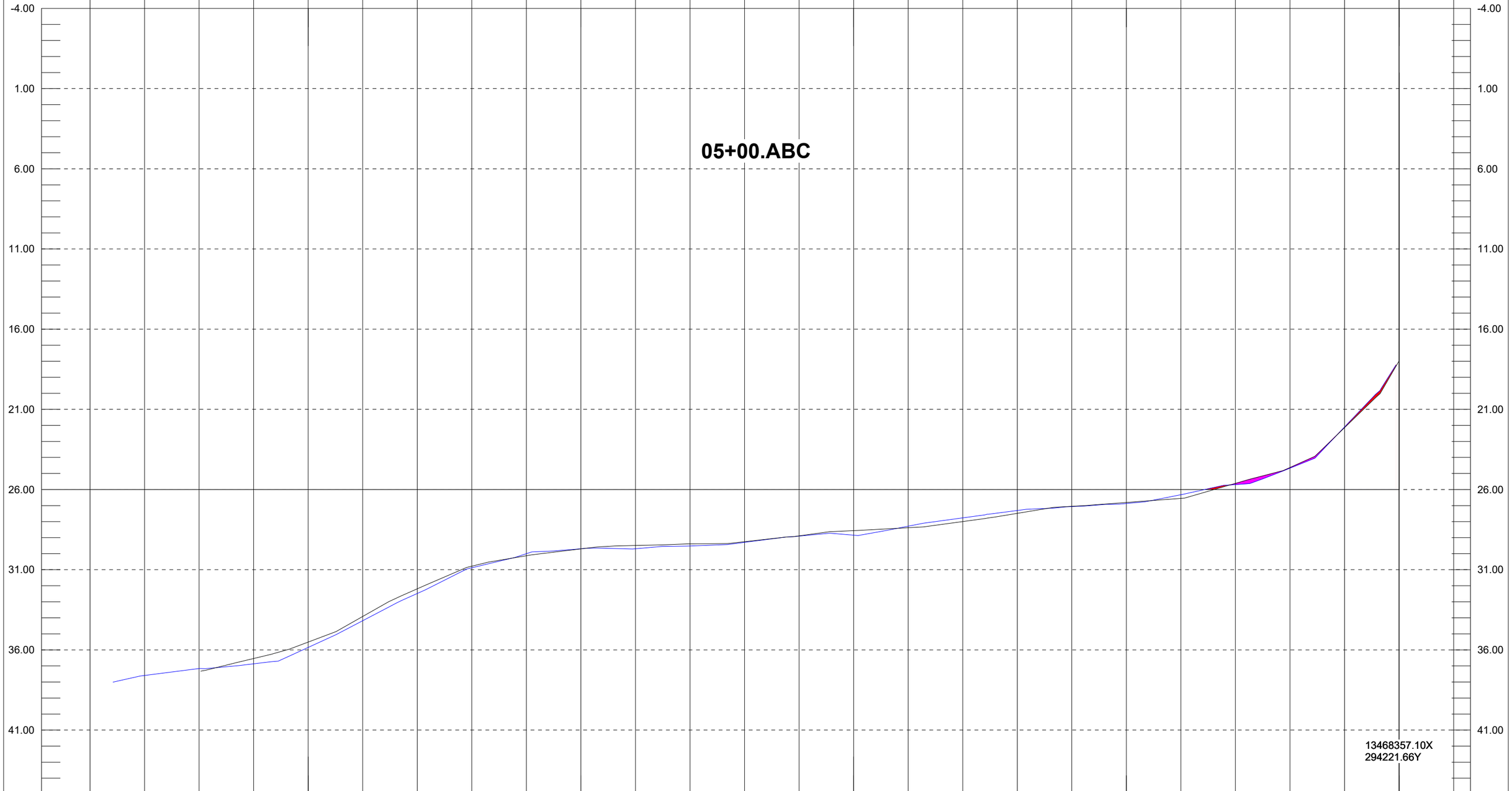
Template

DBL 17.52 Ft:In
Depth 5.86 Ft:In

X: 13468607.86 | 05+00.ABC | Length: 299.99 | Azimuth: 303.29 | X: 13468357.10

Y: 294057.00 | Y: 294221.66

DBL	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	**26.00**	
1		37.60	37.16	36.87	35.84	34.18	32.48	30.88	30.00	29.69	29.69	29.52	29.29	28.90	28.85	28.29	27.77	27.31	27.06	26.87	26.33	25.69	24.67	22.10		
2				36.54	35.51	33.91	32.19	30.78	30.13	29.70	29.49	29.39	29.25	28.89	28.56	28.38	28.00	27.48	27.05	26.81	26.55	25.62	24.63	22.14	**17.99**	
					100.00										200.00									300.00		



9 24 19
05+00.ABC

11 29 19
05+00.bcd

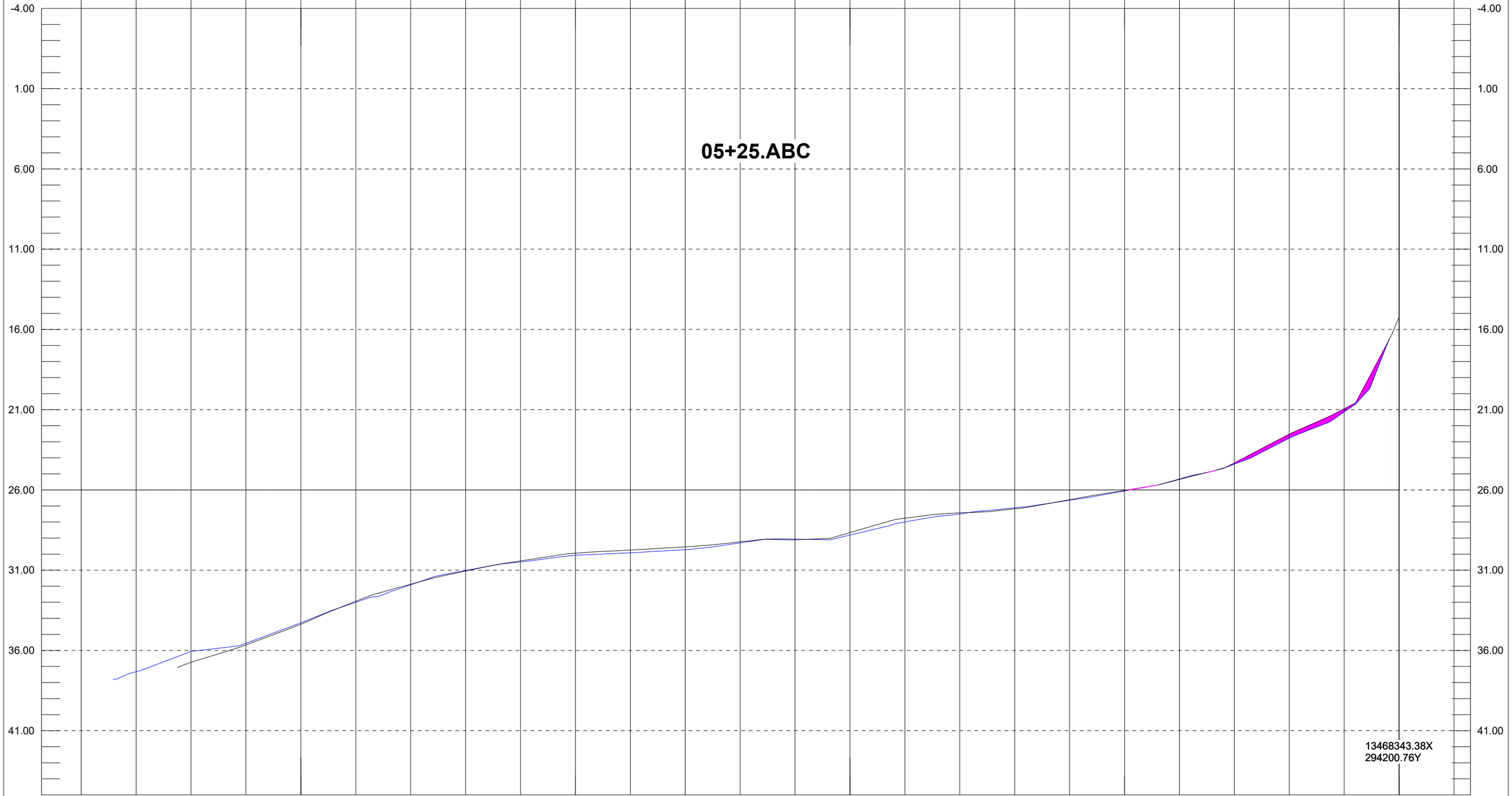
Template

DBL 17.24 Ft:In
Depth 5.86 Ft:In

X: 13468594.14 | 05+25.ABC | Length: 299.99 | Azimuth: 303.29 | X: 13468343.38

Y: 294036.10 | Y: 294200.76

DBL	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	**26.00**	
1		37.32	36.06	35.55	34.28	33.00	31.91	31.02	30.49	30.07	29.92	29.72	29.30	29.07	28.81	27.99	27.50	27.12	26.64	26.07	25.32	24.39	22.77	21.14		
2			36.74	35.65	34.36	32.94	31.88	31.06	30.42	29.94	29.75	29.55	29.23	29.11	28.66	27.76	27.43	27.18	26.61	26.03	25.35	24.32	22.53	20.95	**15.23**	
					100.00										200.00										300.00	



9 24 19
05+25.ABC

11 29 19
05+25.bcd

Template

DBL 17.13 Ft:In
Depth 5.86 Ft:In

X: 13468580.42 | 05+50.ABC | Length: 300.00 | Azimuth: 303.29 | X: 13468329.65

Y: 294015.20 | Y: 294179.86

	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
DBL																										
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	
1		37.56	36.55	35.51	34.39	33.27	32.05	31.01	30.09	29.38	28.96	28.76	28.84	29.04	28.57	27.88	27.41	26.94	26.13	25.00	24.56	23.41	22.32	20.43		
2		36.29	35.15	34.08	33.20	32.10	30.92	30.08	29.20	28.90	28.65	28.83	28.82	28.40	27.74	27.15	26.66	26.10	24.88	23.83	22.10	19.84	17.59			
					100.00										200.00									300.00		

-4.00
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26.00
31.00
36.00
41.00

9 24 19
05+50.ABC

11 29 19
05+50.bcd

Template

DBL 16.89 Ft:In
Depth 5.86 Ft:In

X: 13468566.70 | 05+75.ABC | Length: 300.00 | Azimuth: 303.29 | X: 13468315.93

Y: 293994.31 | Y: 294158.97

DBL	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	
1			36.63	35.70	34.54	33.41	32.35	31.22	30.30	29.56	28.89	28.29	28.32	28.17	27.60	27.56	26.74	25.78	24.67	23.66	22.97	21.79	19.65	17.23		
2			36.55	35.49	34.54	33.57	32.51	31.31	30.33	29.32	28.62	28.46	28.45	28.22	27.78	27.46	26.80	25.56	24.38	22.64	19.11	15.41	11.67	7.24		

100.00 200.00 300.00

-4.00
1.00
6.00
11.00
16.00
21.00
26.00
31.00
36.00
41.00

05+75.ABC

13468315.94X
294158.97Y

9 24 19
05+75.ABC

11 29 19
05+75.bcd

Template

DBL 16.75 Ft:In
Depth 5.86 Ft:In

X: 13468552.97 | 06+00.ABC | Length: 299.99 | Azimuth: 303.29 | X: 13468302.21

Y: 293973.41 | Y: 294138.07

DBL	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	**26.00**	
1			36.66	35.73	34.90	33.78	32.79	31.70	30.54	29.69	28.83	28.67	28.30	28.06	27.77	27.23	26.19	25.38	24.53	22.87	21.36	19.74	17.76	14.50		
2			36.59	35.74	34.86	34.09	33.15	31.76	30.55	29.59	29.02	28.58	28.33	27.99	27.67	27.19	25.89	23.58	21.03	18.95	15.89	12.33	7.84	4.53	**-0.20**	
					100.00										200.00									300.00		

-4.00
1.00
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16.00
21.00
26.00
31.00
36.00
41.00

9 24 19
06+00.ABC

11 29 19
06+00.bcd

Template

DBL 16.64 Ft:In
Depth 5.86 Ft:In

X: 13468539.25 | 06+25.ABC | Length: 299.99 | Azimuth: 303.29 | X: 13468288.49

Y: 293952.51 | Y: 294117.17

DBL	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	
1			36.77	35.92	35.01	33.99	32.88	31.61	30.60	29.56	28.83	28.60	28.34	27.99	27.74	27.33	26.50	25.45	24.71	23.30	21.11	19.86	17.89	15.29		
2			36.78	35.91	34.92	33.88	32.86	31.82	30.58	29.64	29.00	28.55	28.04	27.61	25.94	24.10	21.45	18.98	17.62	14.79	9.68	8.93	5.61	1.67		

100.00 200.00 300.00

-4.00
1.00
6.00
11.00
16.00
21.00
26.00
31.00
36.00
41.00

06+25.ABC

13468288.49X
294117.17Y

9 24 19
06+25.ABC

11 29 19
06+25.bcd

Template

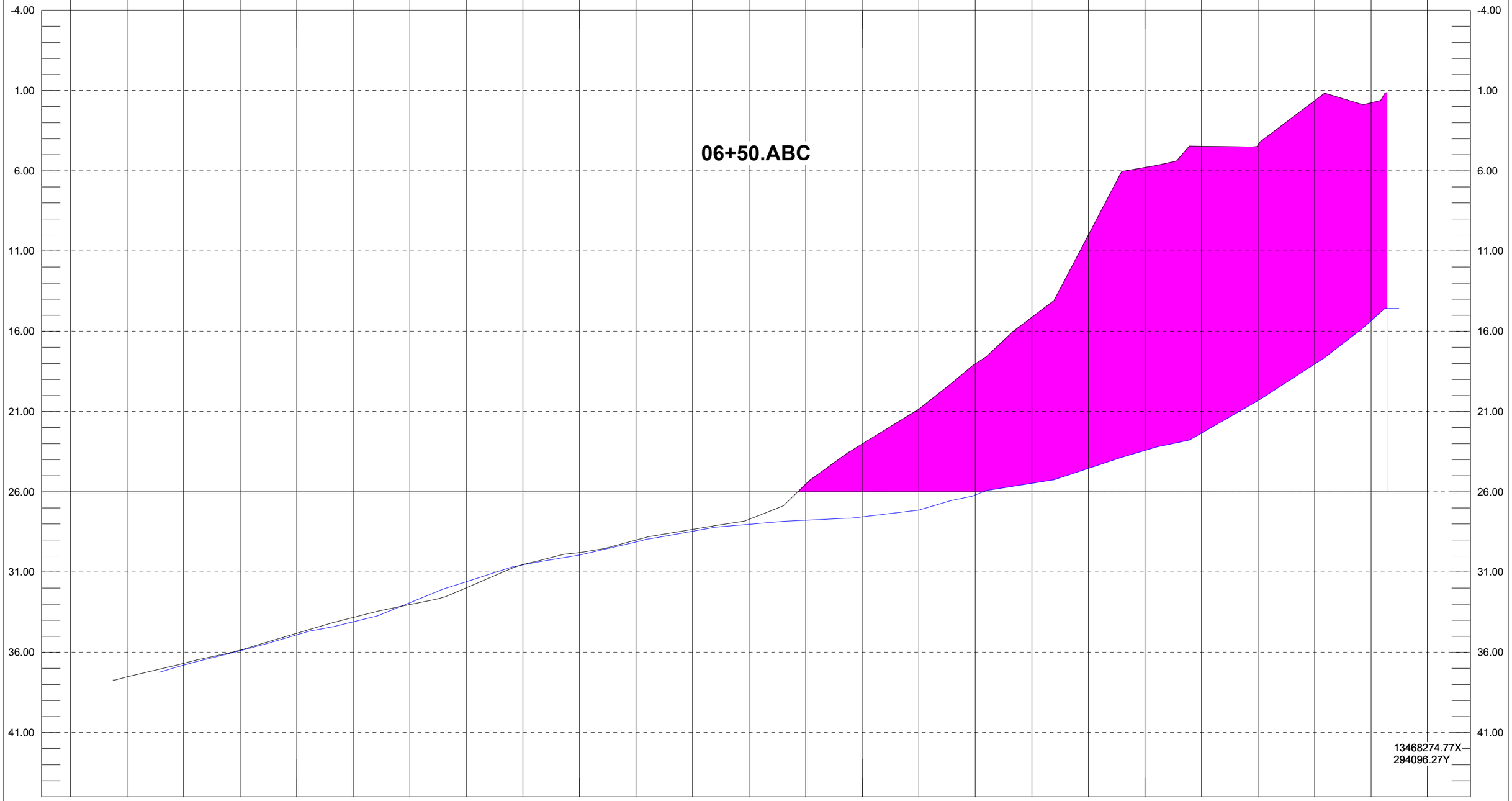
DBL 16.76 Ft:In
Depth 5.86 Ft:In

X: 13468525.53 | 06+50.ABC | Length: 299.99 | Azimuth: 303.29 | X: 13468274.77

Y: 293931.61 | Y: 294096.27

DBL	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00
1			36.80	35.90	34.91	34.10	32.91	31.60	30.55	29.94	29.13	28.46	28.03	27.77	27.56	27.14	26.20	25.47	24.54	23.42	22.34	20.32	18.04	15.34	
2		37.53	36.68	35.86	34.81	33.82	33.02	31.98	30.52	29.79	29.01	28.34	27.72	25.51	23.01	20.85	18.03	15.12	9.99	5.79	4.47	4.39	1.63	1.76	

100.00 200.00 300.00



9 24 19
06+50.ABC

11 29 19
06+50.bcd

Template

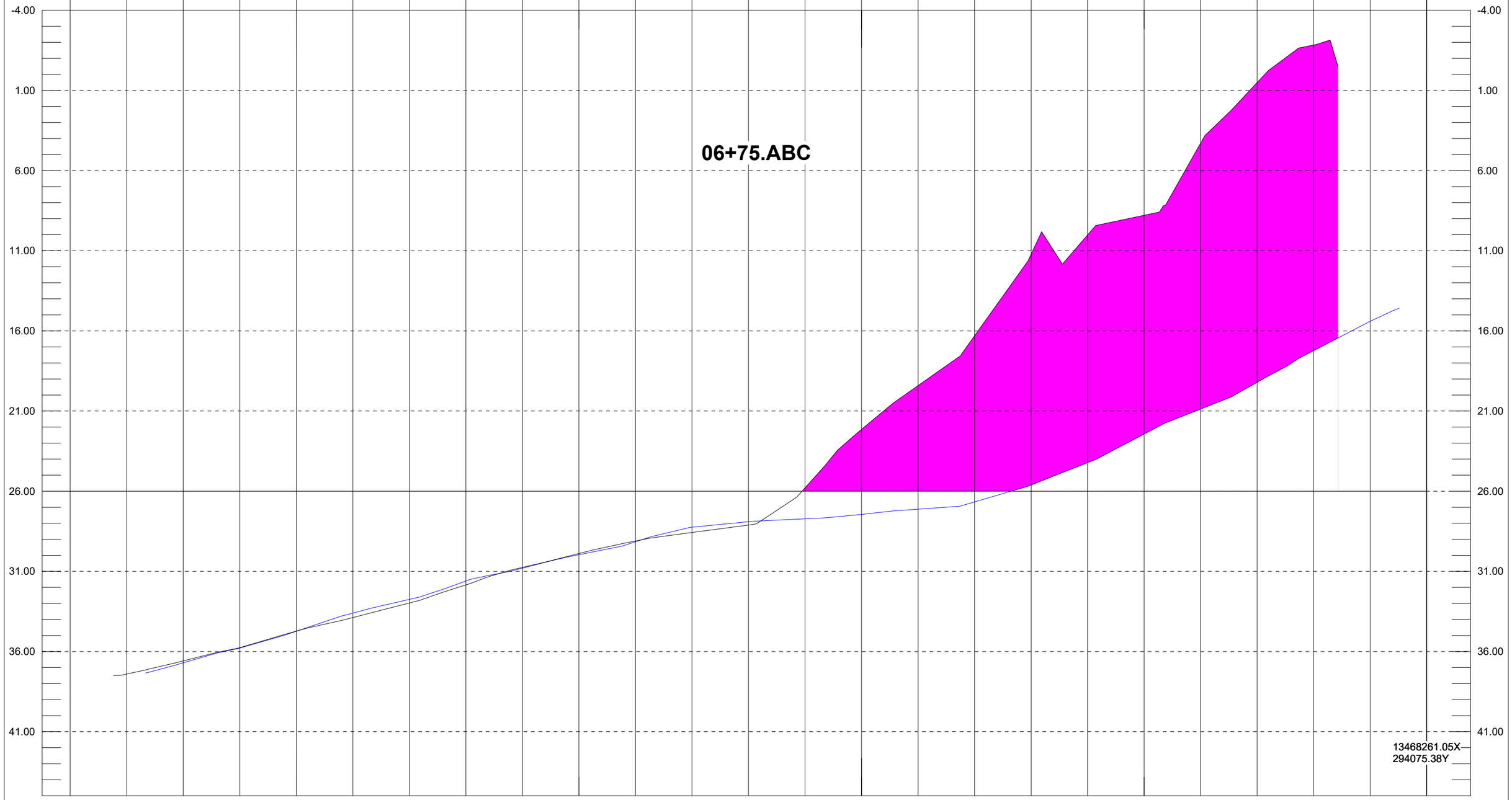
DBL 16.63 Ft:In
Depth 5.86 Ft:In

X: 13468511.81 | 06+75.ABC | Length: 300.00 | Azimuth: 303.29 | X: 13468261.04

Y: 293910.72 | Y: 294075.38

DBL	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00
1			36.71	35.79	34.74	33.60	32.75	31.60	30.81	29.96	29.16	28.25	27.90	27.72	27.45	27.12	26.67	25.61	24.22	22.43	20.87	19.20	17.23	15.40	
2		37.40	36.59	35.76	34.73	33.88	32.97	31.85	30.75	29.89	29.11	28.57	28.11	25.80	22.15	19.41	16.31	11.22	10.02	8.79	4.28	0.51	-1.83		

100.00 200.00 300.00



9 24 19
06+75.ABC

11 29 19
06+75.bcd

Template

DBL 16.63 Ft:In
Depth 5.86 Ft:In

X: 13468498.08 | 07+00.ABC | Length: 299.99 | Azimuth: 303.29 | X: 13468247.32

Y: 293889.82 | Y: 294054.48

DBL	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	~~26.00~~
1			36.67	35.81	34.91	34.00	33.14	32.27	30.77	30.00	29.41	28.85	28.35	27.79	27.28	26.81	26.06	25.12	24.00	22.77	21.44	19.45	17.02	14.62	
2		37.35	36.42	35.63	34.77	33.84	33.09	32.00	30.79	29.82	29.29	28.82	28.20	25.25	21.51	18.00	14.93	12.95	8.38	2.20	3.23	0.41			

100.00 200.00 300.00

-4.00 1.00 6.00 11.00 16.00 21.00 26.00 31.00 36.00 41.00

07+00.ABC

13468247.32X
294054.48Y

9 24 19
07+00.ABC

11 29 19
07+00.bcd

Template

DBL 16.77 Ft:In
Depth 5.86 Ft:In

X: 13468484.36
Y: 293868.92

07+25.ABC

Length: 299.99

Azimuth: 303.29

X: 13468233.60
Y: 294033.58

DBL	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00
1		37.39	36.54	35.66	35.10	34.11	33.16	32.20	31.12	30.21	29.35	28.29	27.92	27.63	27.31	26.91	26.61	25.38	24.29	22.77	21.21	19.34	16.98	14.84	
2		37.37	36.56	35.90	34.98	34.10	33.23	32.18	30.97	30.11	29.39	28.63	27.47	24.80	20.93	17.60	15.16	13.30	7.54	1.60	1.14	2.46			

100.00 200.00 300.00

-4.00
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26.00
31.00
36.00
41.00

07+25.ABC

13468233.60X
294033.58Y

9 24 19
07+25.ABC

11 29 19
07+25.bcd

Template

DBL 16.96 Ft:In
Depth 5.86 Ft:In

X: 13468470.64 | 07+50.ABC | Length: 299.99 | Azimuth: 303.29 | X: 13468219.88

Y: 293848.02 | Y: 294012.68

DBL	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00
1			37.45	36.53	35.60	34.76	33.84	32.80	31.88	31.07	30.25	29.38	28.50	27.83	27.30	27.18	26.77	26.08	24.96	23.86	22.86	21.59	19.79	17.40	14.29	
2			37.19	36.54	35.71	34.77	33.80	33.00	32.00	31.05	30.12	29.22	28.50	27.76	26.81	23.27	19.20	15.82	13.29	9.16	8.41	6.61	2.11			

100.00 200.00 300.00

-4.00 1.00 6.00 11.00 16.00 21.00 26.00 31.00 36.00 41.00

07+50.ABC

13468219.88X
294012.68Y

9 24 19
07+50.ABC

11 29 19
07+50.bcd

Template

DBL 17.23 Ft:In
Depth 5.86 Ft:In

X: 13468456.92 | 07+75.ABC | Length: 299.99 | Azimuth: 303.29 | X: 13468206.16

Y: 293827.13 | Y: 293991.79

DBL	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00
1			38.02	37.08	36.08	35.28	34.69	33.89	32.97	32.17	31.04	29.87	29.15	28.32	27.54	27.09	26.96	26.48	25.84	24.95	23.98	23.13	22.07	20.05	17.16	15.02	
2				37.20	36.32	35.60	34.79	34.08	33.14	32.17	31.05	29.98	29.26	28.40	27.73	27.12	25.18	22.19	19.82	17.48	14.84	12.30	11.17	7.32	3.43		

100.00 200.00 300.00

-4.00 1.00 6.00 11.00 16.00 21.00 26.00 31.00 36.00 41.00

07+75.ABC

13468206.16X
293991.79Y

9 24 19
07+75.ABC

11 29 19
07+75.bcd

Template

DBL 17.86 Ft:In
Depth 5.86 Ft:In

X: 13468443.20 | 08+00.ABC | Length: 300.00 | Azimuth: 303.29 | X: 13468192.43

Y: 293806.23 | Y: 293970.89

DBL	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00
1			39.06	38.33	37.56	36.82	35.90	35.01	33.88	32.96	31.83	30.87	30.19	29.36	28.22	27.59	26.96	26.73	26.44	25.79	24.81	23.61	23.05	22.00	20.65	18.79	16.20	
2					37.36	36.63	35.86	34.87	34.02	32.99	31.86	30.95	30.11	29.26	28.41	27.32	26.92	26.12	24.66	22.21	19.10	16.56	13.31	9.85	7.57	6.75	1.95	

100.00 200.00 300.00

-4.00
1.00
6.00
11.00
16.00
21.00
26.00
31.00
36.00
41.00

08+00.ABC

13468192.44X
293970.89Y

9 24 19
08+00.ABC

11 29 19
08+00.bcd

Template

DBL 18.45 Ft:In
Depth 5.86 Ft:In

X: 13468429.47
Y: 293785.33

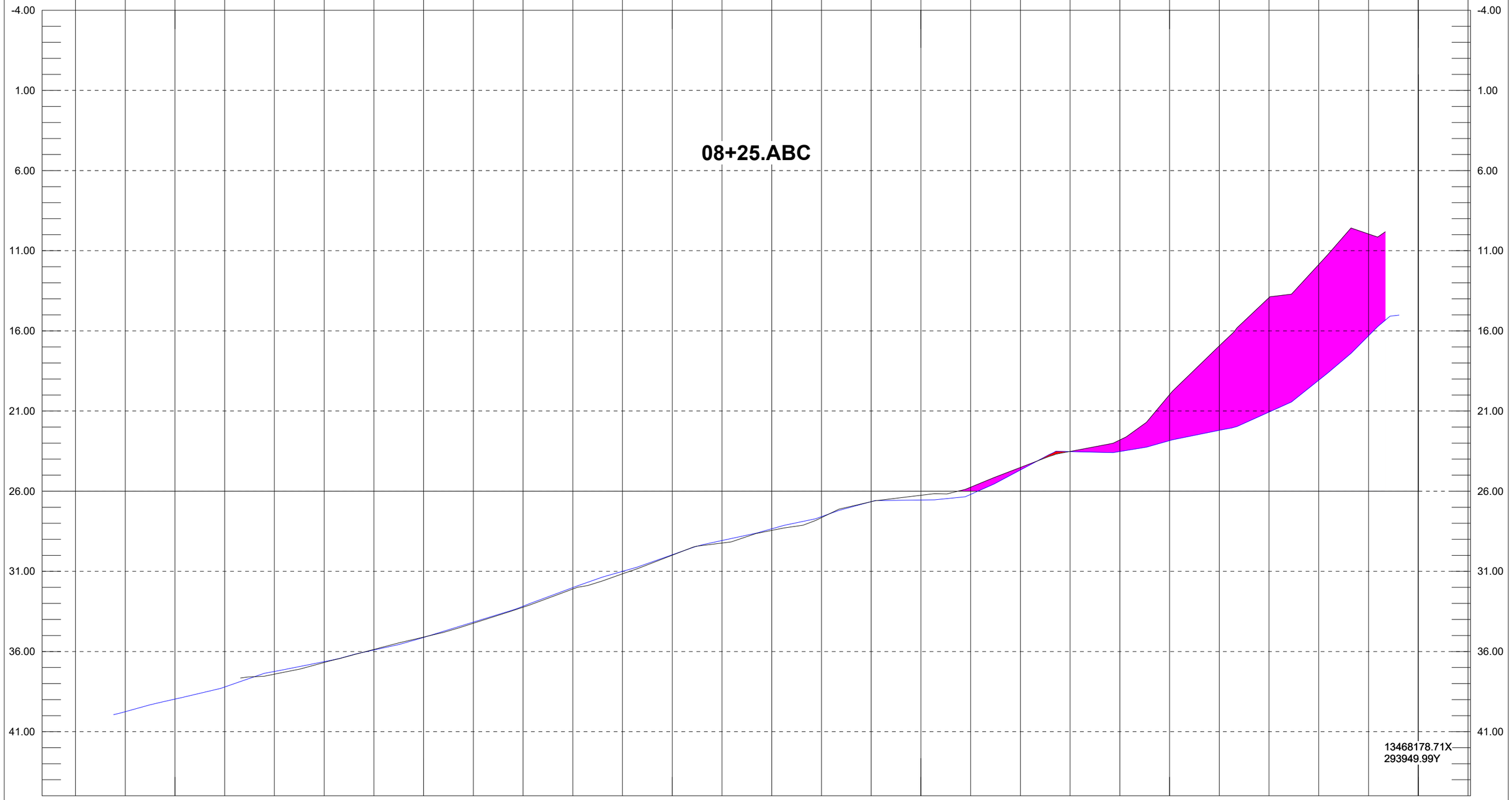
08+25.ABC

Length: 299.99

Azimuth: 303.29

X: 13468178.71
Y: 293949.99

DBL	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	
1		39.75	38.97	38.21	37.25	36.63	35.91	35.12	34.17	33.18	32.01	31.00	29.97	29.08	28.35	27.59	26.65	26.55	26.20	24.67	23.53	23.52	22.84	22.20	21.06	19.07	16.30		
2					37.41	36.69	35.87	35.10	34.24	33.24	32.10	31.15	29.99	29.23	28.44	27.65	26.65	26.25	25.75	24.52	23.52	22.80	19.98	16.94	13.92	11.86	9.95		
							100.00										200.00										300.00		



9 24 19
08+25.ABC

11 29 19
08+25.bcd

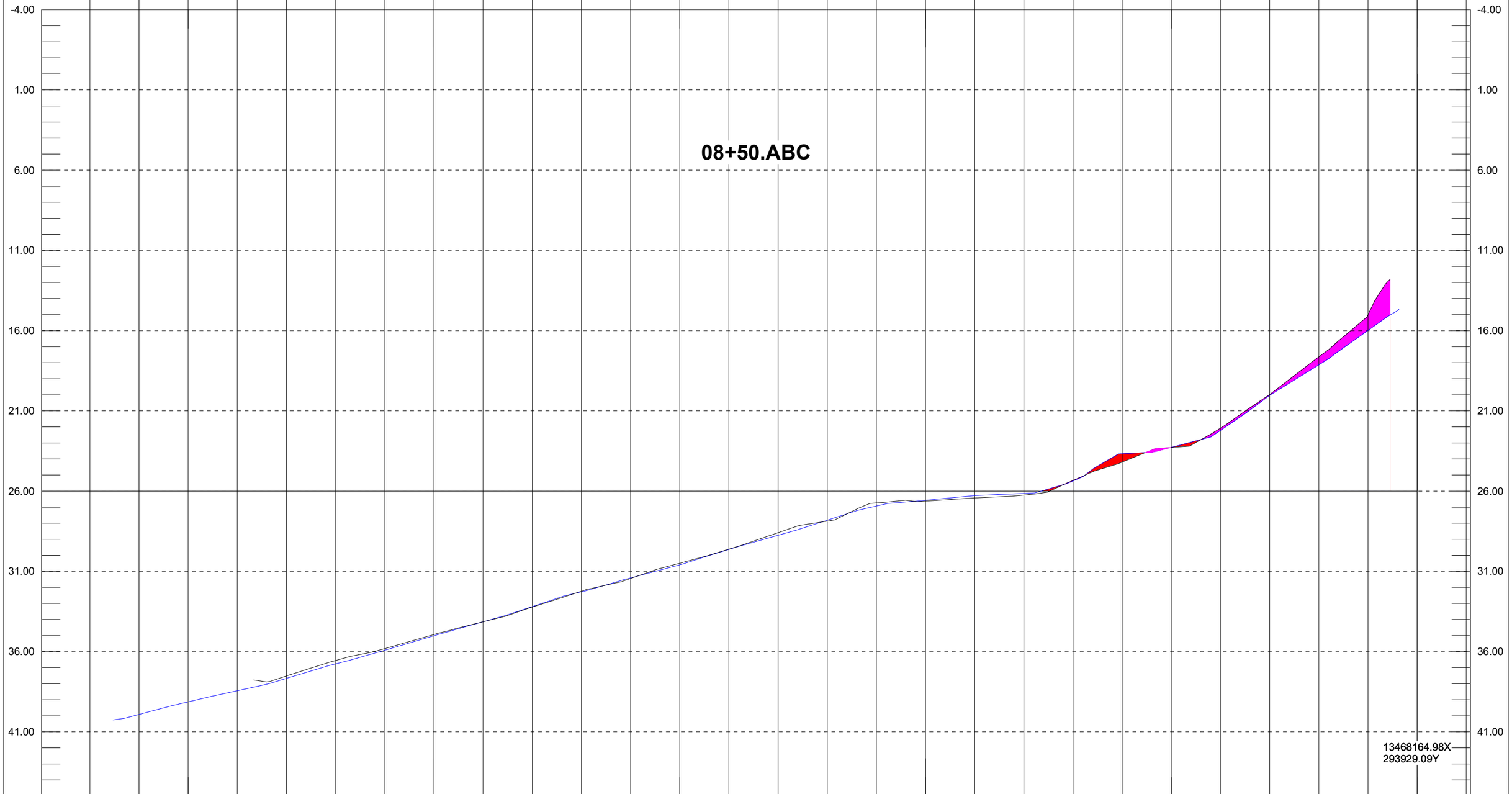
Template

DBL 18.90 Ft:In
Depth 5.86 Ft:In

X: 13468415.75 | 08+50.ABC | Length: 299.98 | Azimuth: 303.29 | X: 13468164.99

Y: 293764.44 | Y: 293929.09

DBL	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	~~26.00~~	
1		39.92	39.13	38.44	37.67	36.77	35.91	35.01	34.14	33.19	32.28	31.41	30.60	29.63	28.75	27.81	26.93	26.57	26.28	26.15	25.37	23.67	23.28	22.22	20.03	18.14	15.99		
2					37.52	36.56	35.81	34.94	34.14	33.23	32.23	31.45	30.49	29.61	28.59	27.87	26.74	26.63	26.42	26.25	25.34	24.20	23.28	22.08	19.98	17.64	15.02		
								100.00										200.00									300.00		



9 24 19
08+50.ABC

11 29 19
08+50.bcd

Template

DBL 19.13 Ft:In
Depth 5.86 Ft:In

X: 13468402.03 | 08+75.ABC | Length: 299.99 | Azimuth: 303.29 | X: 13468151.27

Y: 293743.54 | Y: 293908.20

DBL	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	
1			39.86	39.01	38.49	37.50	36.43	35.76	35.45	34.41	33.39	32.35	31.47	30.64	29.75	29.12	28.49	27.88	27.63	27.63	27.30	26.71	25.41	24.00	21.98	19.83	17.96	15.68		
2						37.53	36.66	35.82	35.12	34.41	33.47	32.42	31.53	30.63	29.77	29.07	28.45	27.85	27.54	27.37	27.03	26.43	25.16	23.87	21.98	19.70	17.55	14.69		

100.00 200.00 300.00

-4.00 1.00 6.00 11.00 16.00 21.00 26.00 31.00 36.00 41.00

08+75.ABC

13468151.27X
293908.20Y

9 24 19
08+75.ABC

11 29 19
08+75.bcd

Template

DBL 19.36 Ft:In
Depth 5.86 Ft:In

X: 13468388.31 | 09+00.ABC | Length: 299.99 | Azimuth: 303.29 | X: 13468137.55

Y: 293722.64 | Y: 293887.30

DBL	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	
1		40.52	40.01	39.33	38.56	37.79	37.05	36.14	35.24	34.41	33.49	32.52	31.72	31.07	30.30	29.50	28.84	28.18	27.64	27.08	26.63	26.02	25.24	24.54	23.04	20.84	17.81	14.62		
2						37.83	36.81	36.04	35.26	34.26	33.16	32.38	31.80	30.98	30.14	29.19	28.79	28.02	27.49	26.96	26.41	25.78	25.07	24.12	22.73	20.33	17.55	14.53		

100.00 200.00 300.00

-4.00
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31.00
36.00
41.00

09+00.ABC

13468137.55X
293887.30Y

9 24 19
09+00.ABC

11 29 19
09+00.bcd

Template

DBL 19.59 Ft:In
Depth 5.86 Ft:In

X: 13468374.59 | 09+25.ABC | Length: 300.00 | Azimuth: 303.29 | X: 13468123.82

Y: 293701.74 | Y: 293866.40

DBL	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	
1		40.81	39.89	38.71	38.06	37.55	36.94	36.40	35.53	34.59	33.67	32.79	31.85	31.00	30.17	29.61	29.11	28.67	28.26	27.62	26.75	25.63	24.60	23.46	21.44	18.98	16.46	13.58		
2						37.65	36.63	36.15	35.18	34.26	33.44	32.74	31.93	30.99	30.07	29.61	29.13	28.64	28.01	27.26	26.33	25.37	24.80	23.32	21.19	18.81	16.36	14.11		
									100.00										200.00										300.00	

-4.00
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36.00
41.00

09+25.ABC

13468123.83X
293866.40Y

9 24 19
09+25.ABC

11 29 19
09+25.bcd

Template

DBL 19.82 Ft:In
Depth 5.86 Ft:In

X: 13468360.86 | 09+50.ABC | Length: 299.98 | Azimuth: 303.29 | X: 13468110.10

Y: 293680.85 | Y: 293845.50

DBL	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	
1		40.94	40.24	39.51	38.62	37.88	37.21	36.56	35.64	34.54	33.51	32.73	32.09	31.52	30.83	29.97	29.47	28.67	28.33	27.93	26.89	25.54	24.15	21.90	20.30	18.63	16.10	13.22		
2						37.54	36.94	35.95	35.35	34.48	33.66	32.80	31.90	31.42	30.91	30.12	29.39	28.68	28.11	27.47	26.70	25.67	24.50	22.33	20.49	18.39	16.33	13.95		
									100.00										200.00									300.00		

-4.00
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36.00
41.00

09+50.ABC

13468110.09X
293845.50Y

9 24 19
09+50.ABC

11 29 19
09+50.bcd

Template

DBL 19.88 Ft:In
Depth 5.86 Ft:In

X: 13468347.14
Y: 293659.95

09+75.ABC

Length: 299.99

Azimuth: 303.29

X: 13468096.38
Y: 293824.61

DBL	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	
1		41.07	40.30	39.58	38.82	37.97	36.89	36.20	35.40	34.53	33.60	32.71	32.23	31.40	30.86	30.29	29.62	28.94	28.55	28.22	27.19	25.78	23.98	21.67	20.39	19.43	17.28	14.63		
2						37.90	36.99	36.29	35.38	34.47	33.63	32.88	32.10	31.39	30.68	29.90	29.23	28.72	28.46	27.85	26.93	25.54	23.60	21.72	20.13	18.72	16.86	14.52		
									100.00										200.00									300.00		

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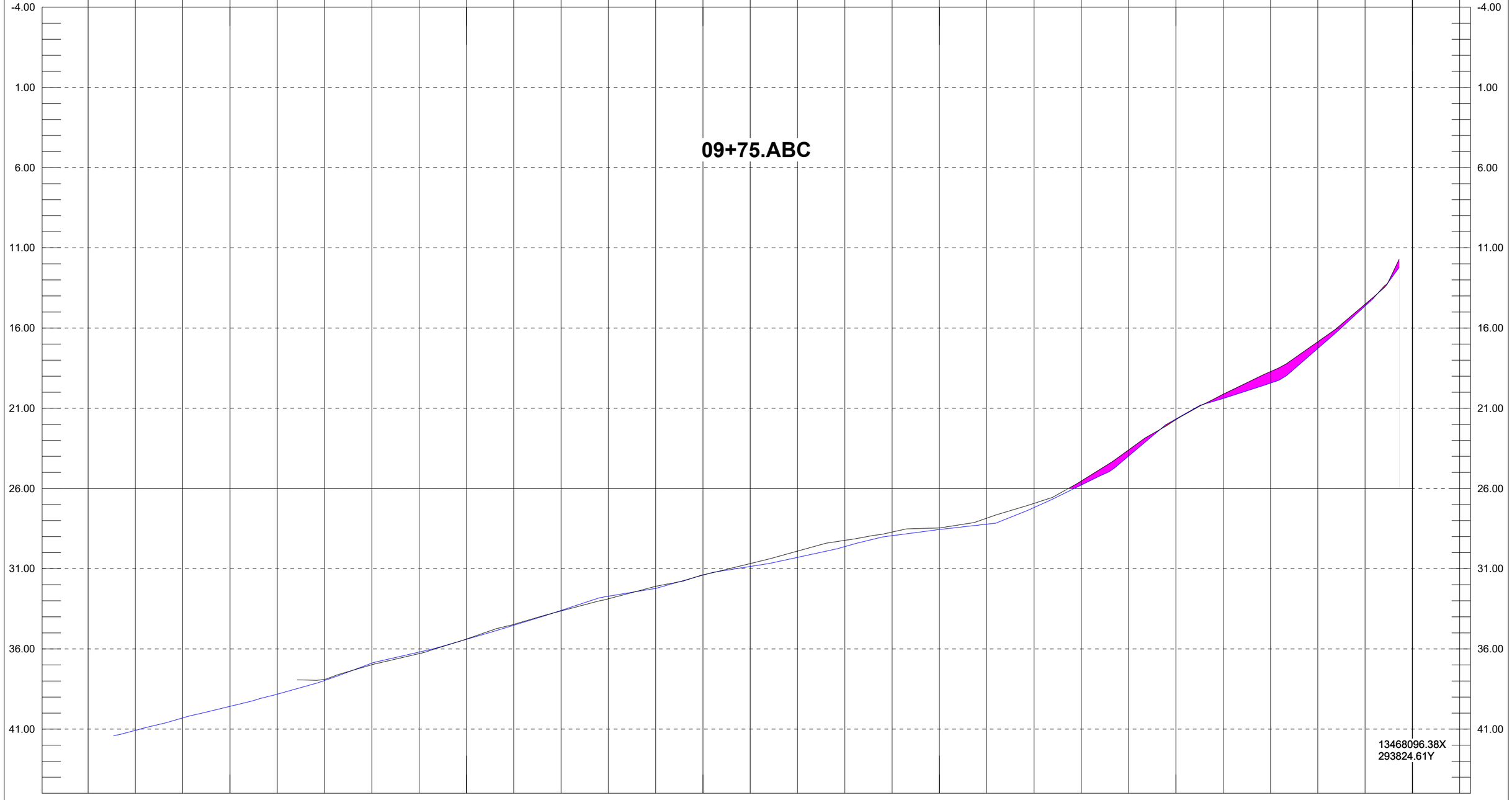


9 24 19
09+75.ABC

11 29 19
09+75.bcd

Template

DBL 19.88 Ft:In
Depth 5.86 Ft:In

X: 13468333.42
Y: 293639.05

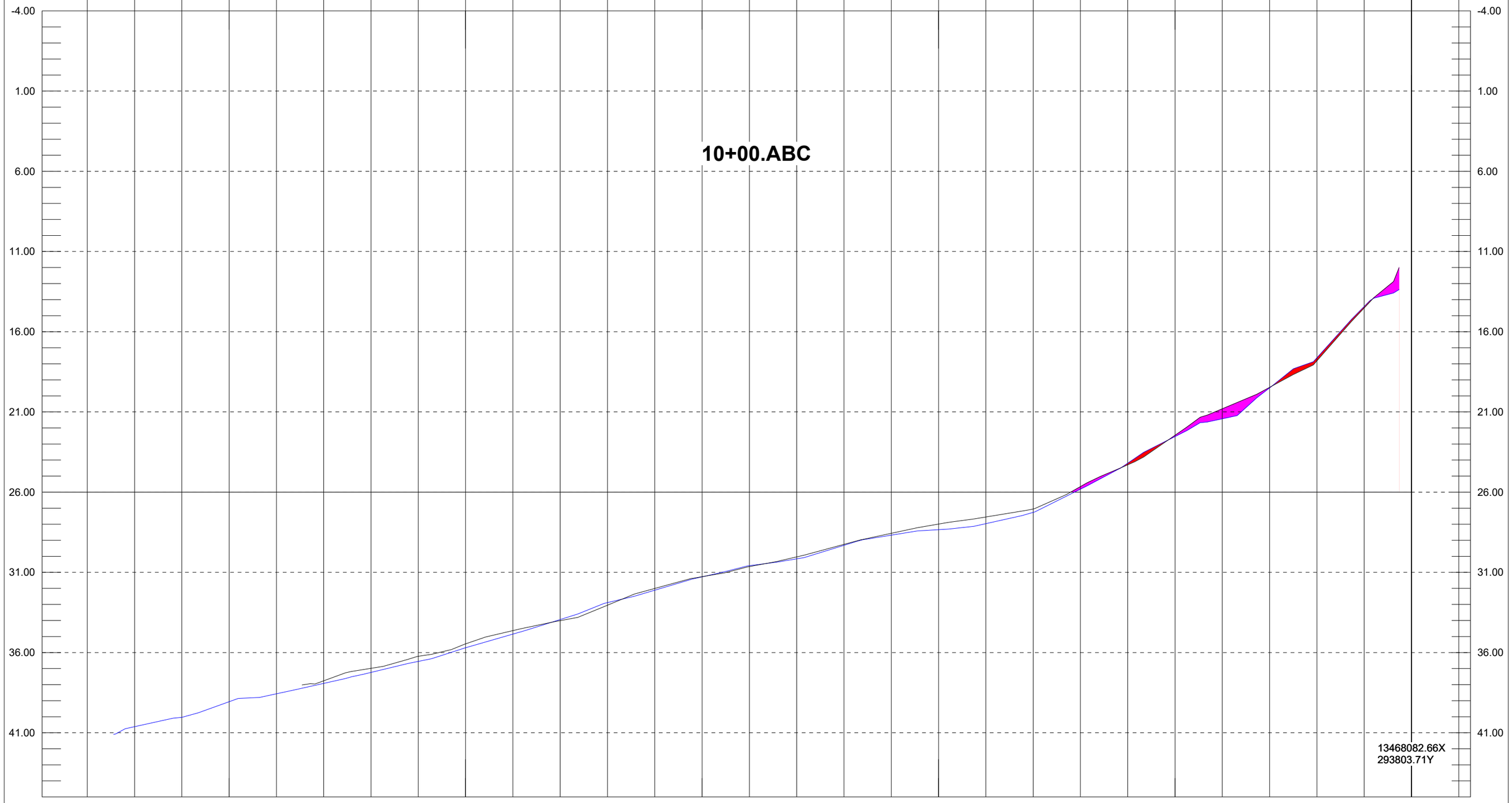
10+00.ABC

Length: 299.99

Azimuth: 303.29

X: 13468082.66
Y: 293803.71

DBL	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	
1		40.62	40.04	39.07	38.57	37.92	37.24	36.55	35.70	34.85	33.94	32.89	32.11	31.28	30.59	30.16	29.32	28.68	28.34	27.96	27.26	25.81	24.19	22.53	21.43	19.50	17.62	14.42		
2						37.76	36.98	36.23	35.46	34.63	34.01	33.05	32.00	31.27	30.64	30.04	29.26	28.57	27.99	27.55	27.05	25.65	24.30	22.45	20.80	19.47	17.81	14.52		
									100.00										200.00									300.00		



9 24 19
10+00.ABC

11 29 19
10+00.bcd

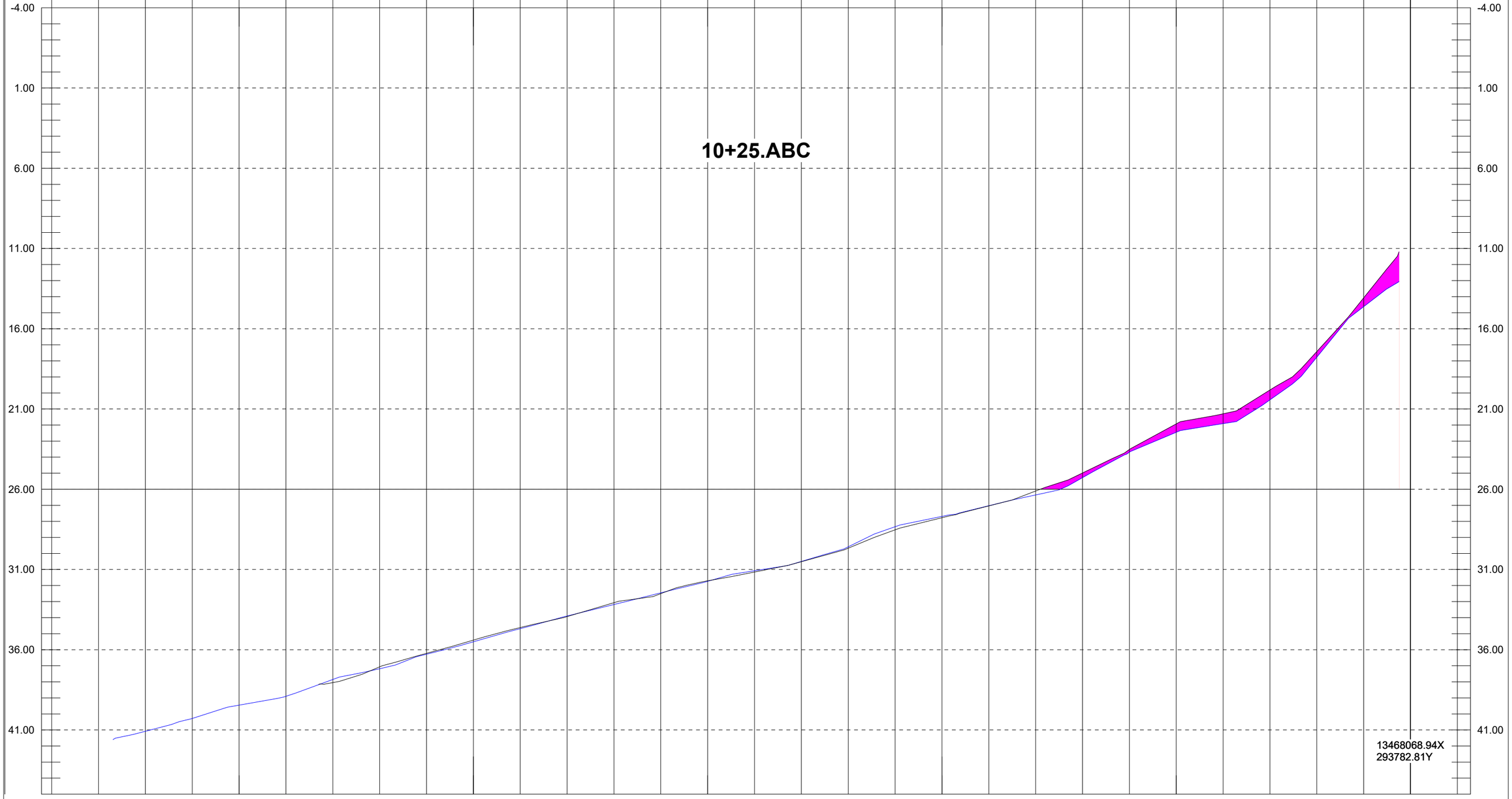
Template

DBL 19.88 Ft:In
Depth 5.86 Ft:In

X: 13468319.70 | 10+25.ABC | Length: 299.99 | Azimuth: 303.29 | X: 13468068.94

Y: 293618.15 | Y: 293782.81

DBL	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	299.99	310.00
26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	
1			41.08	40.28	39.45	38.90	37.85	37.19	36.28	35.50	34.68	33.90	33.18	32.45	31.74	31.08	30.50	29.59	28.34	27.69	27.03	26.35	25.27	23.69	22.45	21.91	20.43	17.77	14.62		
2							38.05	37.07	36.22	35.40	34.62	33.94	33.07	32.50	31.70	31.16	30.51	29.67	28.53	27.77	27.04	26.11	24.99	23.52	21.93	21.30	19.82	17.42	14.08		
										100.00										200.00									300.00		



9 24 19 | 11 29 19 | Template | DBL 20.07 Ft:In

10+25.ABC | 10+25.bcd | Depth 5.86 Ft:In

X: 13468305.97 | 10+50.ABC | Length: 299.98 | Azimuth: 303.29 | X: 13468055.21

Y: 293597.26 | Y: 293761.91

DBL	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	299.99	310.00
26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	
1			40.96	40.16	39.42	38.63	37.85	37.24	36.38	35.69	34.79	33.99	33.23	32.43	31.93	31.24	30.61	29.75	29.00	28.16	27.28	26.05	25.10	24.40	23.17	21.55	19.50	17.47	14.34		
2							38.10	37.26	36.53	35.66	34.76	33.98	33.38	32.86	32.11	31.22	30.62	30.05	29.22	28.04	27.02	25.98	25.22	24.31	23.01	21.75	19.98	17.64	14.67		
										100.00										200.00									300.00		

-4.00
1.00
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31.00
36.00
41.00

10+50.ABC

13468055.20X
293761.91Y

9 24 19
10+50.ABC

11 29 19
10+50.bcd

Template

DBL 20.08 Ft:In
Depth 5.86 Ft:In

X: 13468292.25 | 10+75.ABC | Length: 299.99 | Azimuth: 303.29 | X: 13468041.49

Y: 293576.36 | Y: 293741.02

	0.00	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	299.99	310.00
DBL	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	
Tmp	26.00																															
1				40.90	40.35	39.65	38.82	38.16	37.42	36.63	35.97	35.24	34.36	33.52	32.63	31.61	31.32	30.65	29.93	29.09	28.25	27.28	26.31	25.17	23.97	22.90	21.65	19.82	17.42	13.63		
2									37.28	36.57	35.73	34.93	34.25	33.48	32.70	32.06	31.50	30.77	30.04	29.32	28.61	27.80	26.78	25.87	24.55	22.97	21.54	19.68	17.07	13.40		
										100.00											200.00									300.00		

-4.00 1.00 6.00 11.00 16.00 21.00 26.00 31.00 36.00 41.00

9 24 19
10+75.ABC

11 29 19
10+75.bcd

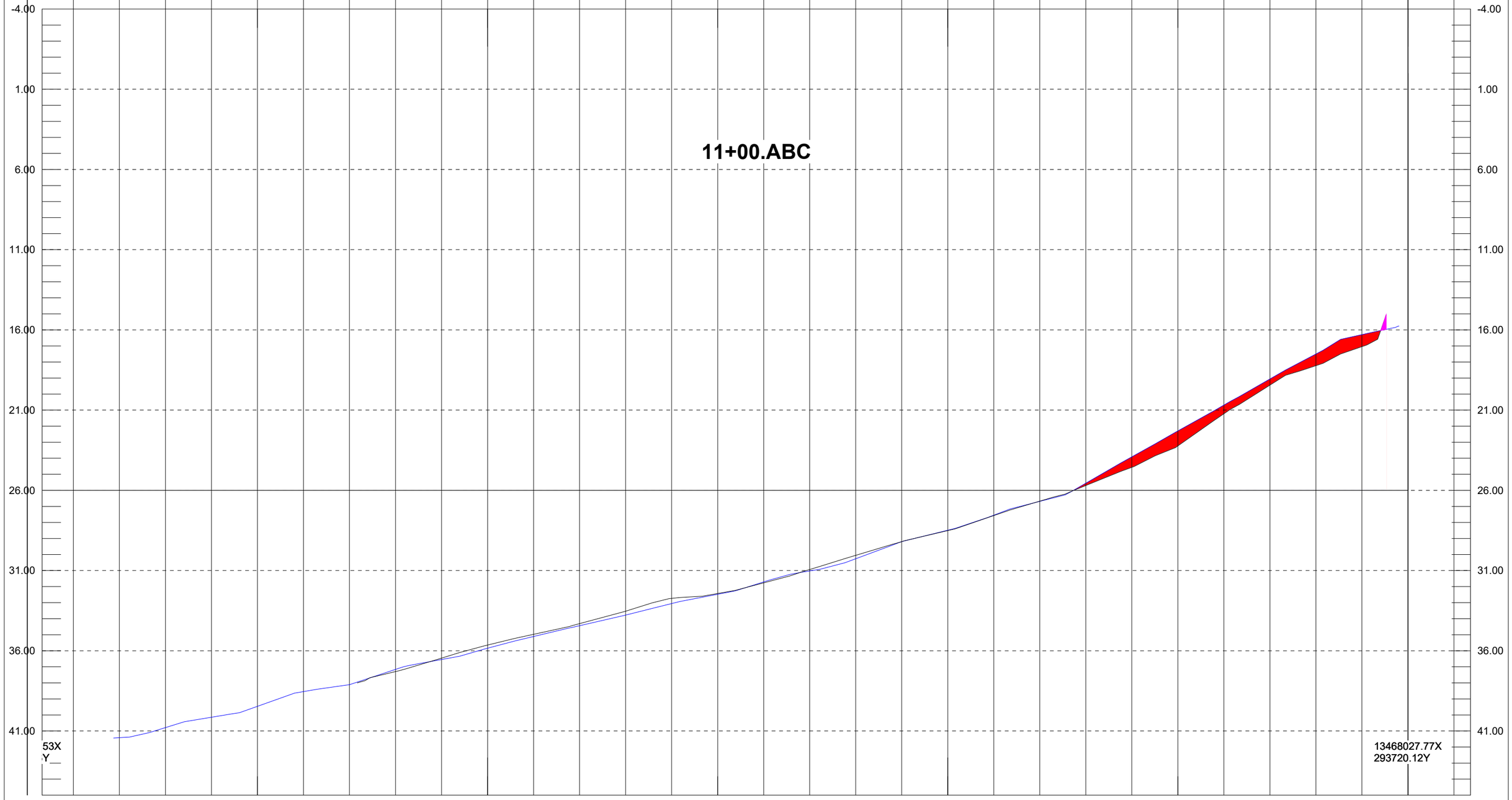
Template

DBL 20.20 Ft:In
Depth 5.86 Ft:In

X: 13468278.53 | 11+00.ABC | Length: 299.99 | Azimuth: 303.29 | X: 13468027.77

Y: 293555.46 | Y: 293720.12

DBL	0.00	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	190.00	200.00	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	~~299.99~~	310.00
Tmp	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00	
1			41.42	40.79	40.14	39.46	38.54	38.11	37.16	36.55	35.84	35.11	34.44	33.78	33.06	32.48	31.71	31.02	30.26	29.20	28.48	27.55	26.69	25.56	23.91	22.30	20.69	19.06	17.50	16.30		
2									37.30	36.46	35.65	34.97	34.31	33.54	32.73	32.43	31.77	30.93	30.05	29.20	28.51	27.57	26.67	25.70	24.57	23.23	21.23	19.44	18.23	17.04		
											100.00										200.00										300.00		



9 24 19
11+00.ABC

11 29 19
11+00.bcd

Template

DBL 20.43 Ft:In
Depth 5.86 Ft:In

SUMMARY OF RIVER BANK FAILURE MATERIAL THISKNESS

5851 WEST JEFFERSON AVENUE, DETROIT, MICHIGAN
PM PROJECT #01-5303-3-0001

Sounding Line[1]	Distance from Shoreline[1]	River Bank Failure Material Depth[1,2]	Depth to Sediment (Pre-Collapse Depth)[1,2]	River Bank Failure Thickness
05+25	10	20.95	21.14	0.19
	20	22.53	22.77	0.24
	30	24.32	24.39	0.07
	40	25.35	25.32	-0.03
	50	26.03	26.07	0.04
05+50	10	17.59	20.43	2.84
	20	19.84	22.32	2.48
	30	22.10	23.41	1.31
	40	23.83	24.56	0.73
	50	24.88	25.00	0.12
	60	26.10	26.13	0.03
	70	26.66	26.94	0.28
05+75	10	7.24	17.23	9.99
	20	11.67	19.65	7.98
	30	15.41	21.79	6.38
	40	19.11	22.97	3.86
	50	22.64	23.66	1.02
	60	24.38	24.67	0.29
	70	25.56	25.78	0.22
	80	26.80	26.74	-0.06
06+00	10	4.53	14.50	9.97
	20	7.84	17.76	9.92
	30	12.33	19.74	7.41
	40	15.89	21.36	5.47
	50	18.95	22.87	3.92
	60	21.03	24.53	3.50
	70	23.58	25.38	1.80
	80	25.89	26.19	0.30
	90	27.19	27.23	0.04
06+25	10	1.67	15.29	13.62
	20	5.61	17.89	12.28
	30	8.93	19.86	10.93
	40	9.68	21.11	11.43
	50	14.79	23.30	8.51
	60	17.62	24.71	7.09
	70	18.98	25.45	6.47
	80	21.45	26.50	5.05
	90	24.10	27.33	3.23
	100	25.94	27.74	1.80
	110	27.61	27.99	0.38
06+50	10	1.76	15.34	13.58
	20	1.63	18.04	16.41
	30	4.39	20.32	15.93
	40	4.47	22.34	17.87
	50	5.79	23.42	17.63
	60	9.99	24.54	14.55
	70	15.12	25.47	10.35
	80	18.03	26.20	8.17
	90	20.85	27.14	6.29
	100	23.01	27.56	4.55
	110	25.51	27.77	2.26
	120	27.72	28.03	0.31
06+75	20	-1.83	17.23	19.06
	30	0.51	19.20	18.69
	40	4.28	20.87	16.59
	50	8.79	22.43	13.64
	60	10.02	24.22	14.20
	70	11.22	25.61	14.39
	80	16.31	26.67	10.36
	90	19.41	27.12	7.71
	100	22.15	27.45	5.30
	110	25.80	27.72	1.92
	120	28.11	27.9	-0.21
07+00	30	0.41	19.45	19.04
	40	3.23	21.44	18.21
	50	2.20	22.77	20.57
	60	8.38	24.00	15.62
	70	12.95	25.12	12.17
	80	14.93	26.06	11.13
	90	18.00	26.81	8.81
	100	21.51	27.28	5.77
	110	25.25	27.79	2.54
	120	28.20	28.35	0.15

SUMMARY OF RIVER BANK FAILURE MATERIAL THISKNESS

5851 WEST JEFFERSON AVENUE, DETROIT, MICHIGAN
PM PROJECT #01-5303-3-0001

Sounding Line[1]	Distance from Shoreline[1]	River Bank Failure Material Depth[1,2]	Depth to Sediment (Pre-Collapse Depth)[1,2]	River Bank Failure Thickness
07+25	30	2.46	19.34	16.88
	40	1.14	21.21	20.07
	50	1.60	22.77	21.17
	60	7.54	24.29	16.75
	70	13.30	25.38	12.08
	80	15.16	26.61	11.45
	90	17.60	26.91	9.31
	100	20.93	27.31	6.38
	110	24.80	27.63	2.83
	120	27.47	27.92	0.45
07+50	30	2.11	19.79	17.68
	40	6.61	21.59	14.98
	50	8.41	22.86	14.45
	60	9.16	23.86	14.70
	70	13.29	24.96	11.67
	80	15.82	26.08	10.26
	90	19.20	26.77	7.57
	100	23.27	27.18	3.91
	110	26.81	27.30	0.49
07+75	20	3.43	17.16	13.73
	30	7.32	20.05	12.73
	40	11.17	22.07	10.90
	50	12.30	23.13	10.83
	60	14.84	23.98	9.14
	70	17.48	24.95	7.47
	80	19.82	25.84	6.02
	90	22.19	26.48	4.29
	100	25.18	26.96	1.78
	110	27.12	27.09	-0.03
08+00	10	1.95	16.20	14.25
	20	6.75	18.79	12.04
	30	7.57	20.65	13.08
	40	9.85	22.00	12.15
	50	13.31	23.05	9.74
	60	16.56	23.61	7.05
	70	19.10	24.81	5.71
	80	22.21	25.79	3.58
	90	24.66	26.44	1.78
	100	26.12	26.73	0.61
	110	26.92	26.96	0.04
08+25	10	9.95	16.30	6.35
	20	11.86	19.07	7.21
	30	13.92	21.06	7.14
	40	16.94	22.20	5.26
	50	19.98	22.84	2.86
	60	22.80	23.52	0.72
	70	23.52	23.53	0.01
	80	24.52	24.67	0.15
	90	25.75	26.20	0.45
08+50	10	15.02	15.99	0.97
	20	17.64	18.14	0.50
	30	19.98	20.03	0.05
	40	22.08	22.22	0.14
	50	23.28	23.28	0
	60	24.20	23.67	-0.53
	70	25.34	25.37	0.03
	80	26.25	26.15	-0.10
08+75	10	14.69	15.68	0.99
	20	17.55	17.96	0.41
	30	19.70	19.83	0.13
	40	21.98	21.98	0
	50	23.87	24.00	0.13
	60	25.16	25.41	0.25
	70	26.43	26.71	0.28
09+00	10	14.53	14.62	0.09
	20	17.55	17.81	0.26
	30	20.33	20.84	0.51
	40	22.73	23.04	0.31
	50	24.12	24.54	0.42
	60	25.07	25.24	0.17
	70	25.78	26.02	0.24
	80	26.41	26.63	0.22

[1] Values sourced from Youngs Consulting, LTD, Inc. Hydrographic Survey, dated September 24, 2019 and, Youngs Consulting, LTD, Inc. Hydrographic Survey, dated November 29, 2019

[2] Depths are from river surface elevation

Appendix B

PM ENVIRONMENTAL Environmental & Engineering Services

Operation and Maintenance Plan for Security Fencing
Around the Riverbank Failure Area
5815-5851 West Jefferson Avenue, Detroit, Michigan

Instructions:

The inspection of the chain-link fence barrier must be conducted on a weekly basis Each inspection must include a walkthrough of the subject property to document the condition of the fencing, whether repairs are needed to prevent trespass by the public, and to document the actions taken to repair or replace the fencing if necessary, including the timeline for repair replacement following identification of an issue. Records of the inspections must be maintained by Revere Dock, LLC for the duration of its ownership of the subject property or until the riverbank failure has been resolved and the subject property can revert to normal (i.e., pre-riverbank failure) use.

The area of concern on the subject property consist of one main component as depicted on the map on Page 3: 1) the chain link fencing

Chain-link Fencing: On a weekly basis, inspect and record the condition of the chain link fencing installed around the riverbank failure area.

If the fence is found to be damaged or otherwise breached, the damage must be repaired within one day of discovery. Records of any repairs must be included on the attached log included on Page 2. If trespassing is evident, local law enforcement and/or site security personnel should be notified.

Inspection Form for Security Fencing
Around the Riverbank Failure Area
5815-5851 West Jefferson Avenue, Detroit, Michigan

Provide further description and comments, if necessary, on a separate sheet of paper and attach to this sheet. **Any item that receives "yes" as an answer must be described and addressed.**

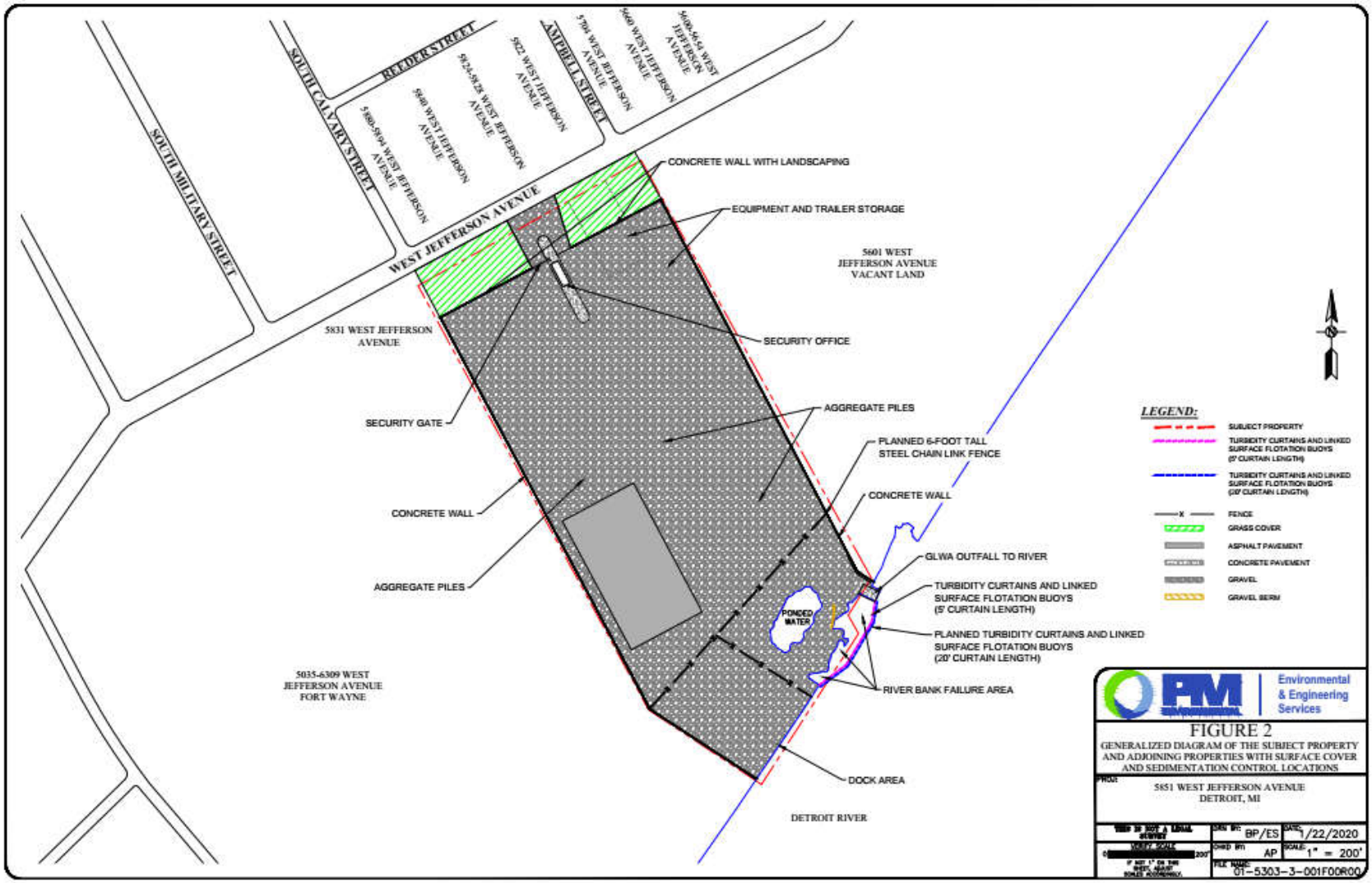
Exposure Barrier Type	Y	N	Date of Inspection, Description & Comments, Summary of Actions Taken
Fencing			
Does the fencing surround the entire riverbank failure area?			
Is the gate securely locked?			
Is the fencing damaged, cut, or otherwise compromised?			
*Are there any indications of t*respassing?			

Additional Remarks:

Date: _____ **Signature: _____**

Inspection Form for Security Fencing
Around the Riverbank Failure Area
5815-5851 West Jefferson Avenue, Detroit, Michigan

Map of Exposure Barrier Area



Operation and Maintenance Plan for Turbidity Curtain Installed at the Riverbank Failure Area 5815-5851 West Jefferson Avenue, Detroit, Michigan

Instructions:

The inspection of the turbidity curtain must be conducted on a weekly basis Each inspection must include a walkthrough of the waterfront area of subject property to document the condition of the turbidity curtain, whether repairs are needed to prevent potential impact to the Detroit River, and to document the actions taken to repair or replace the turbidity curtain if necessary, including the timeline for repair replacement following identification of an issue. Records of the inspections must be maintained by Revere Dock, LLC for the duration of its ownership of the subject property or until the riverbank failure has been resolved and the subject property can revert to normal (i.e., pre-riverbank failure) use.

The areas of concern on the subject property consists of one main component as depicted on the map on Page 3: 1) the turbidity curtain.

Turbidity Curtain: On a weekly basis, inspect and record the condition of the turbidity curtain installed around the riverbank failure area.

If the turbidity curtain is found to be damaged, loose, unanchored, or otherwise ineffective, the damage must be repaired or the turbidity curtain replaced within one day of discovery. Records of any repairs must be included on the attached log included on Page 2.

Inspection Form for Turbidity Curtain
Installed at the Riverbank Failure Area
5815-5851 West Jefferson Avenue, Detroit, Michigan

Provide further description and comments, if necessary, on a separate sheet of paper and attach to this sheet. **Any item that receives "yes" as an answer must be described and addressed.**

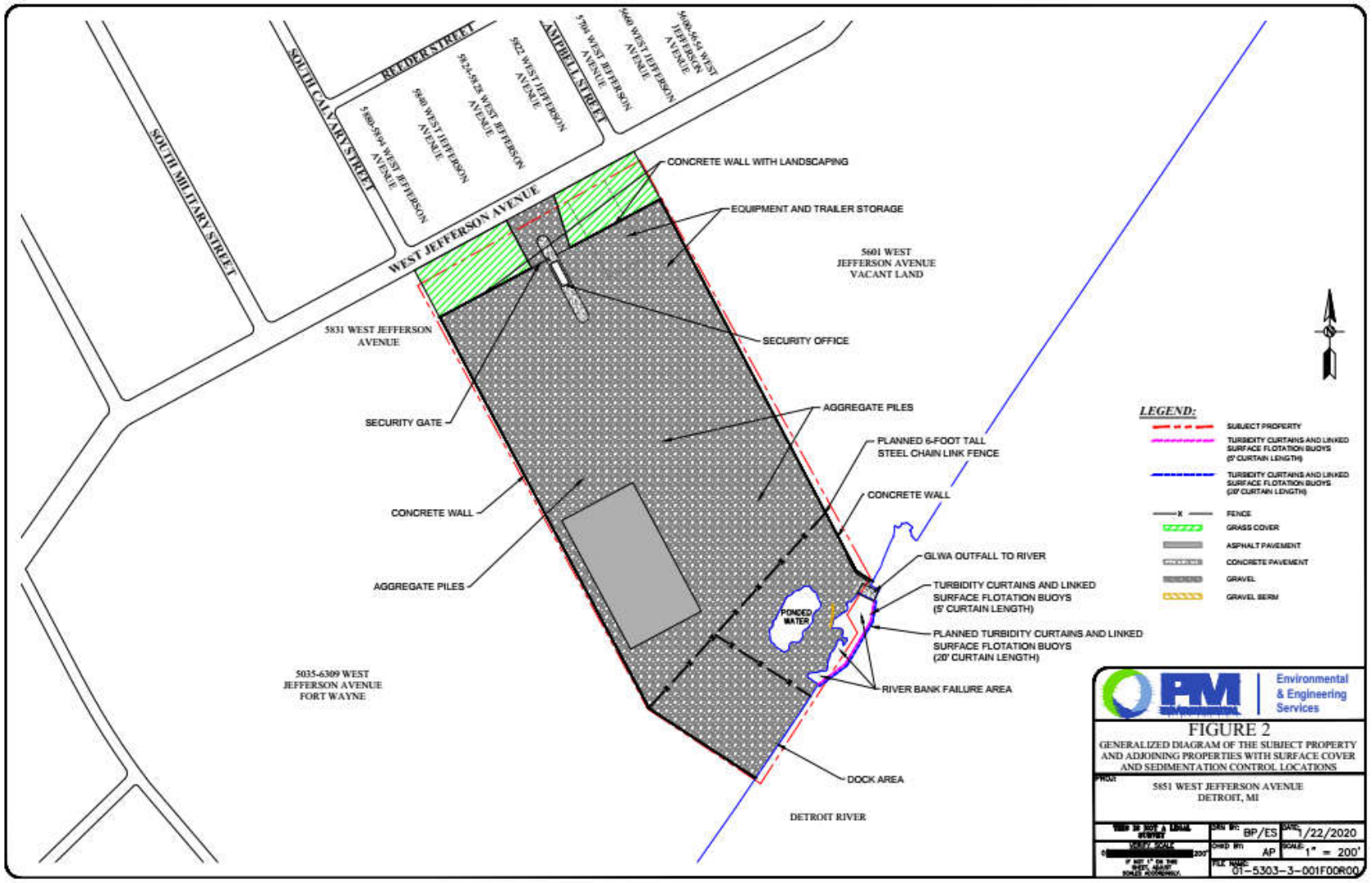
Exposure Barrier Type	Y	N	Date of Inspection, Description & Comments, Summary of Actions Taken
Turbidity Curtain			
Is the turbidity curtain installed correctly in accordance with the manufacturer's specifications?			
Does the turbidity curtain span the entirety of the riverbank failure area?			
Is the turbidity curtain appear to be properly anchored to the riverbed?			

Additional Remarks:

Date: _____ **Signature: _____**

Inspection Form for Turbidity Curtain
Installed at the Riverbank Failure Area
5815-5851 West Jefferson Avenue, Detroit, Michigan

Map of Exposure Barrier Areas



Appendix C

PM ENVIRONMENTAL Environmental & Engineering Services

PM Project No. 01-05303-3-0001
Location: 5851 West Jefferson Avenue, Detroit, Michigan

Photograph 1

View of gravel berm installed East of the Pond area; facing East.

Photograph 2

View of gravel berm installed East of the Pond area; facing South.

PM Project No. 01-05303-3-0001
Location: 5851 West Jefferson Avenue, Detroit, Michigan

Photograph 3

View of the installed 5-foot turbidity curtains taken on 1/17/2020, facing North.

Photograph 4

View of the installed 5-foot turbidity curtains taken on 1/17/2020, facing South.