

# 44<sup>th</sup> Annual Regional Convention

## Point Cloud Control and eTD

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<http://gepr3.org>

“Bringing Technology to the Grassroots  
for World Class Professionals”

March 16-17,2018

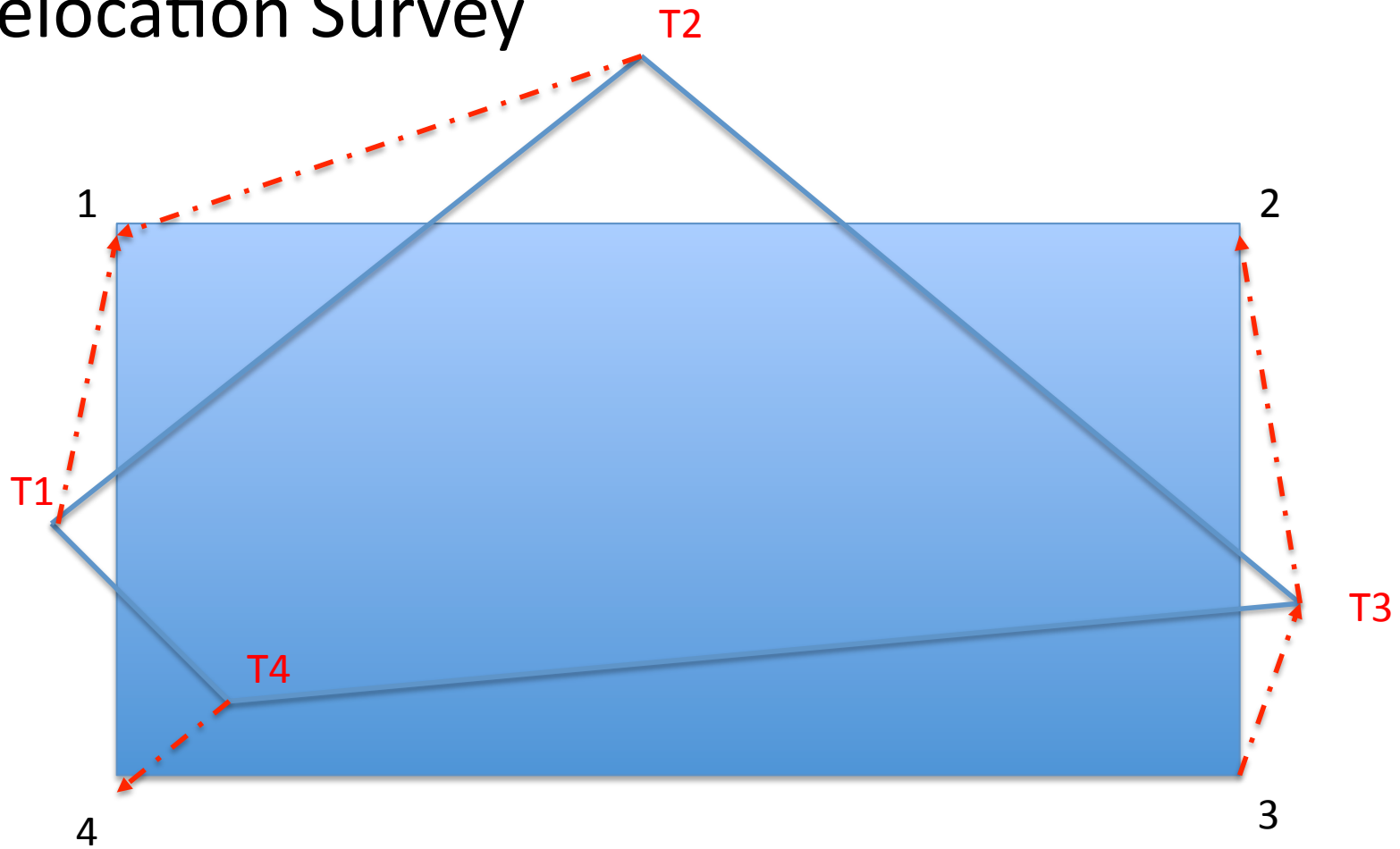
Otel Pampanga, Skye Plaza Bldg., Lazatin Boulevard, City of San Fernando, Pampanga

# Discussion

- Point Cloud Control
  - Scope: Relocation Survey
  - Situationaire: Common Point Problem/Solution
  - Tools/Equipment Used: Total Station (Prismless), Laptop, Spreadsheet, CAD/GIS
  - Next Step : Proposal Point/Line Reference Survey Methodology
- eTD
  - Application form for accreditation
  - Accreditation
  - Transmission: eTD Software

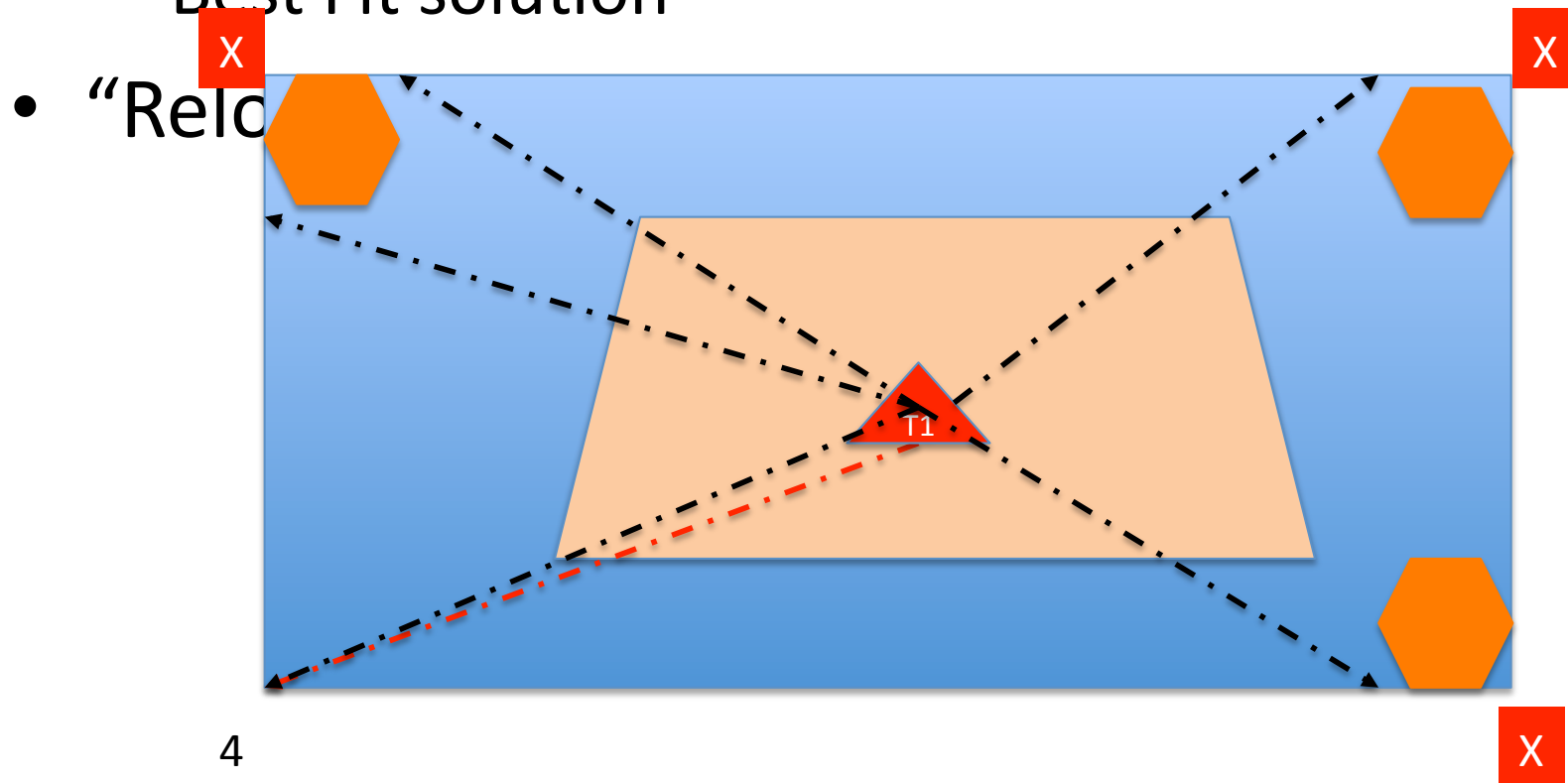
# Point Cloud Control – Scope

- Relocation Survey



# Point Cloud Control – Situationnaire

- Common Point Problem/Solution
  - Minimum of two points
  - Best Fit solution



# Point Cloud Control - Tools/Equipment Used

Total Station (Prismless),

Laptop,

Spreadsheet,

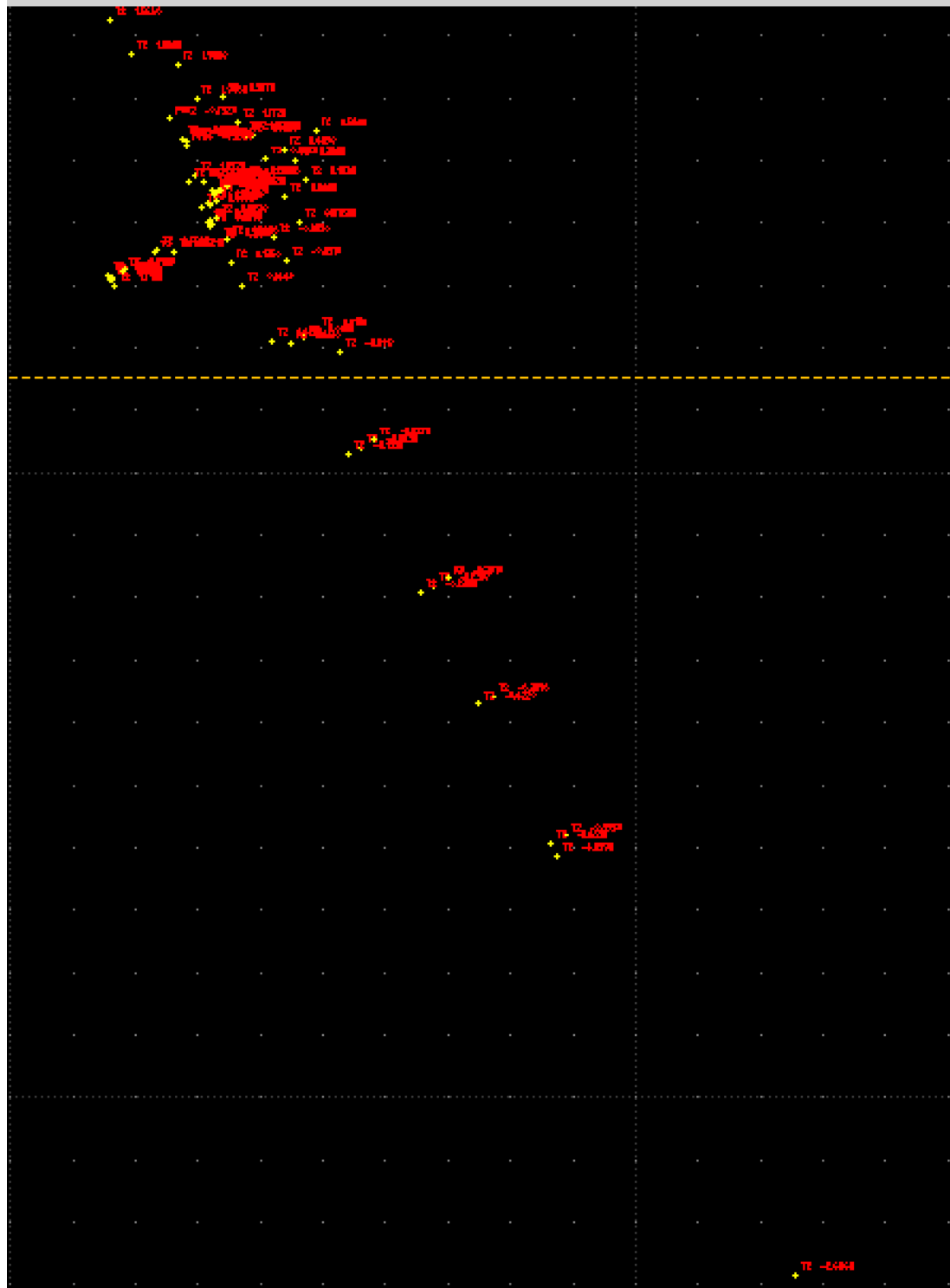
CAD/GIS

# Methodology

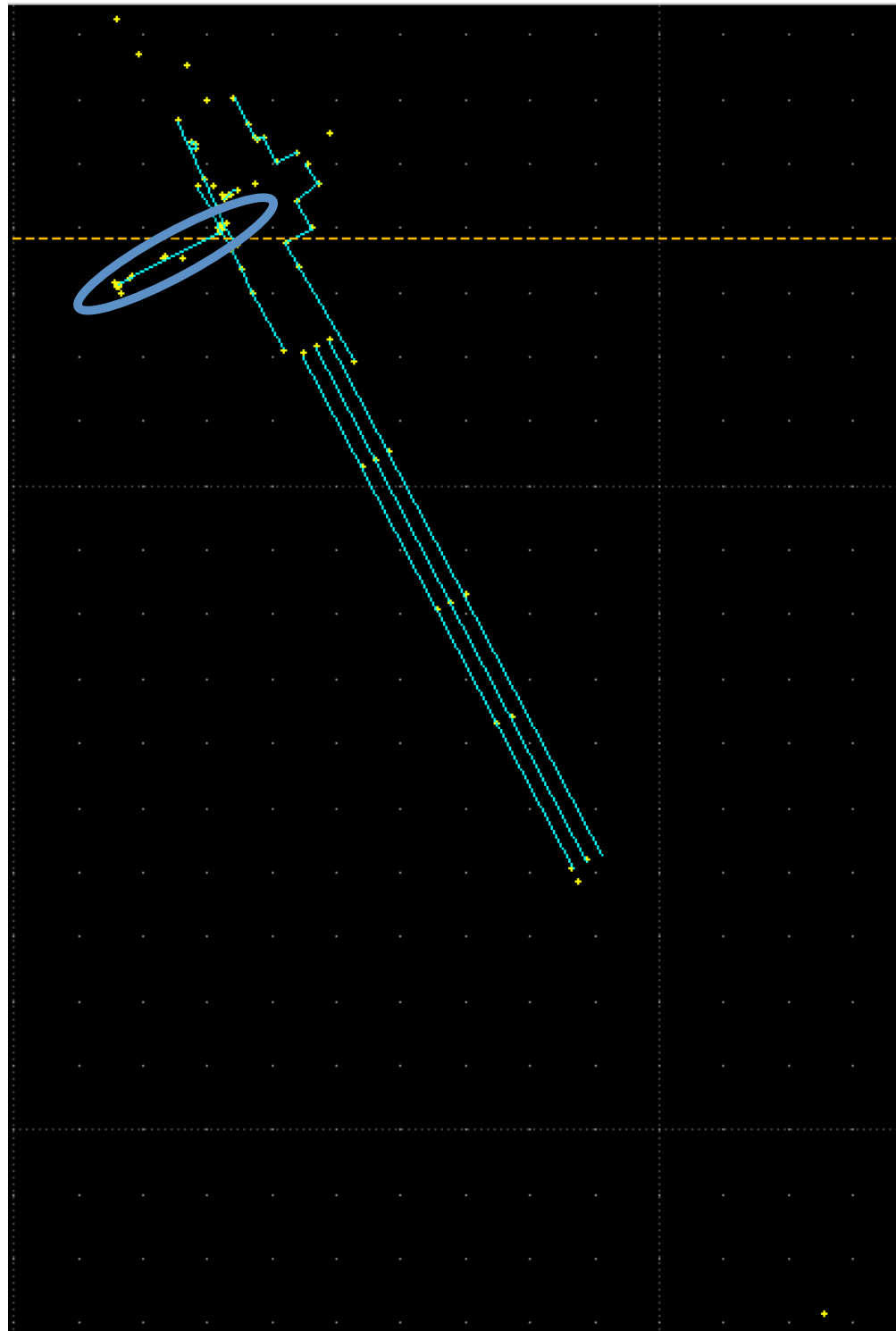
- Research
  - Title
  - Survey Plan
- Field Work
- Computation / Analysis
- Report / Plan

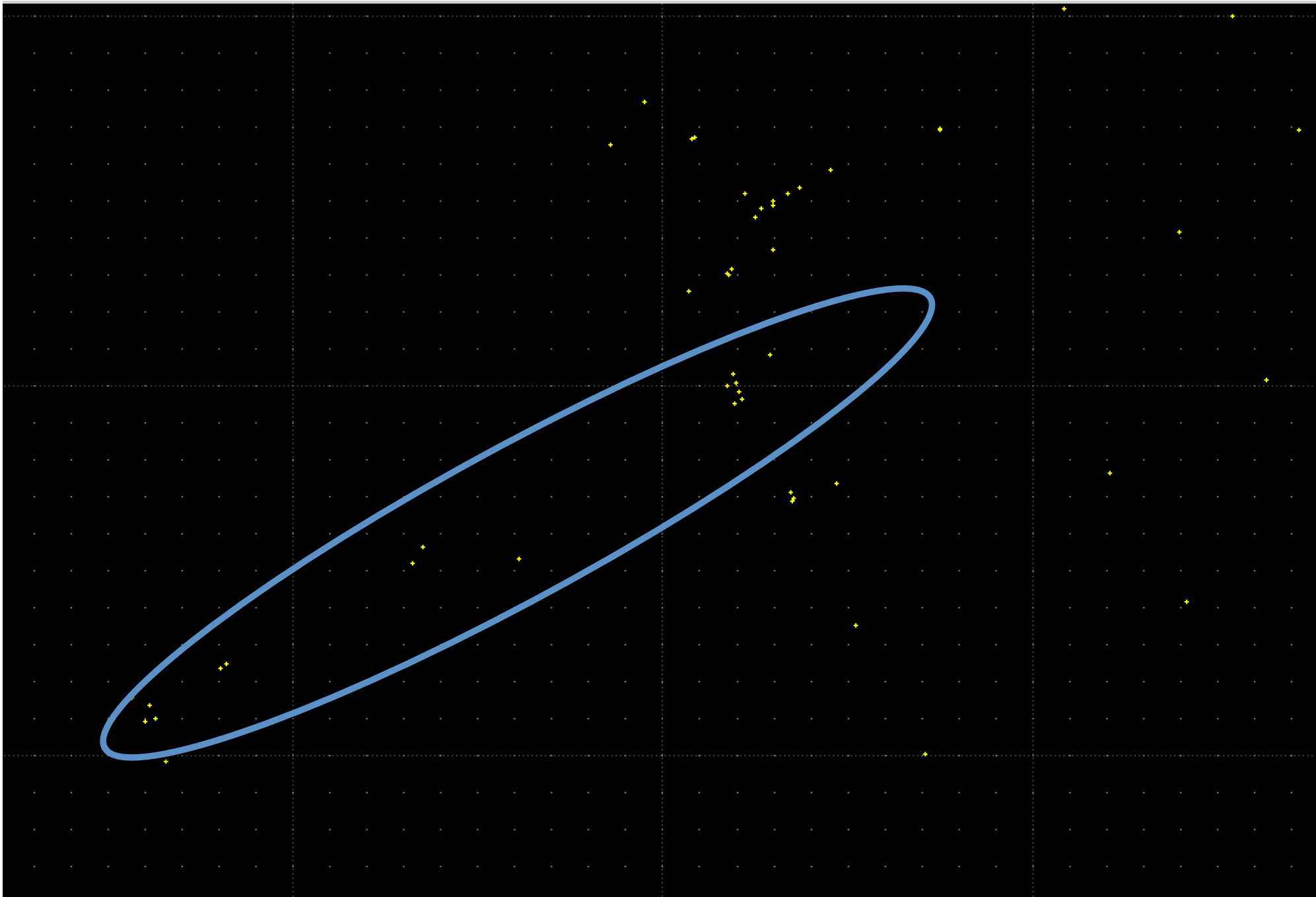
# Methodology











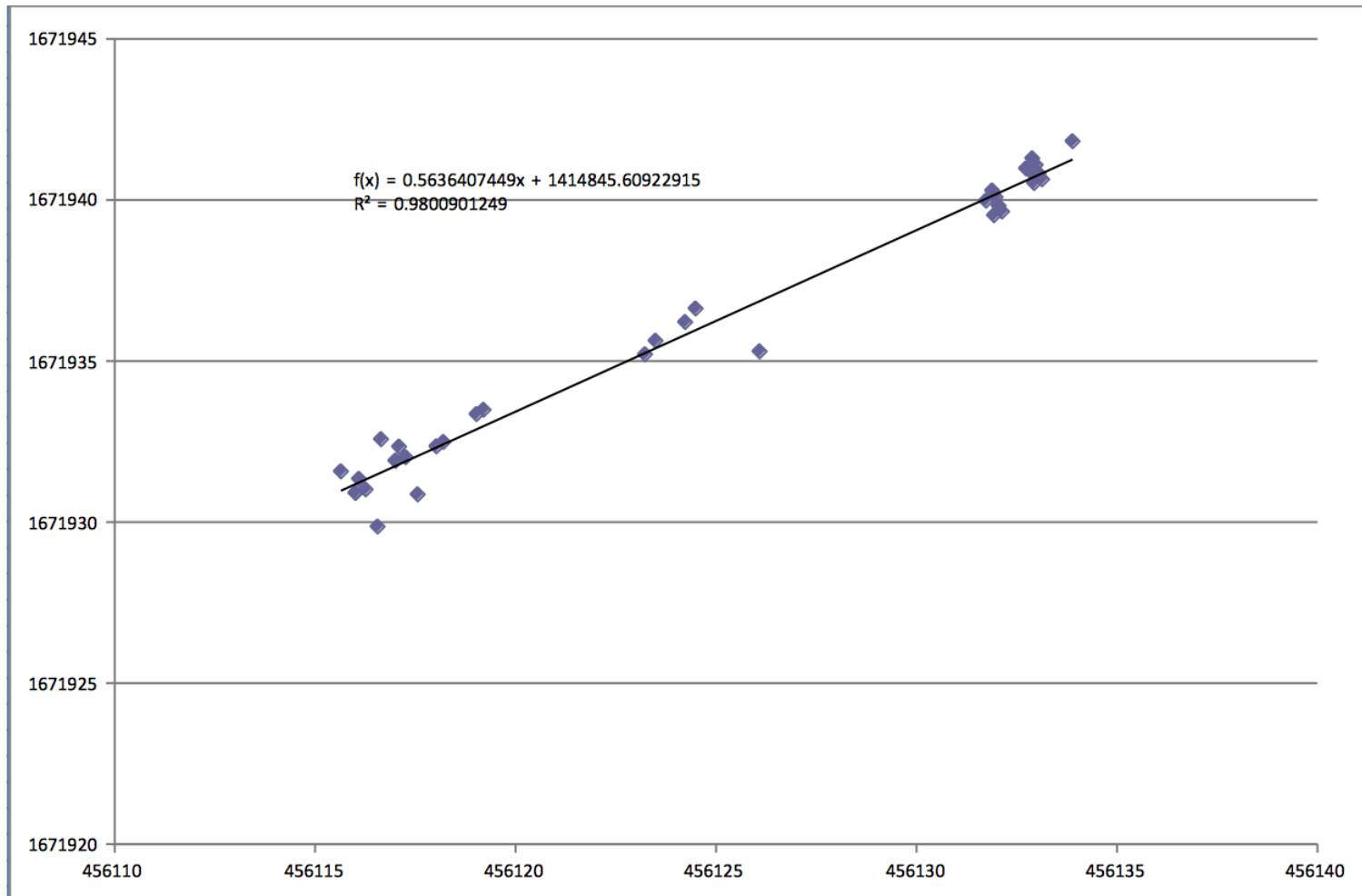
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# Regression Line: $y=m*x+b$

$y=m*x+b$				1671935.394	
					The intercept (often labeled the constant) is the expected mean value of Y when all $X=0$ . Start with a regression equation with one predictor, X. If X sometimes = 0, the intercept is simply the expected mean value of Y at that value.
$m = \text{SLOPE}(\text{Data\_Y};\text{Data\_X})$				0.5636407449	
$b = \text{INTERCEPT}(\text{Data\_Y};\text{Data\_X})$				1414845.609	
					<b>R<sup>2</sup>coefficient of determination</b> is a statistical measure of how well the regression line approximates the real data points. An R <sup>2</sup> of 1 indicates that the regression line perfectly fits the data.
$r^2 = \text{RSQ}(\text{Data\_Y};\text{Data\_X})$				0.9800901249	

# Regression Line



# Point Cloud Control - Next Step(s)

Proposal: Point/Line Reference Survey Methodology

Amend/Modify Survey Manual

“Best Fit”

# eTD - Application

## PHILARIS-eTD APPLICATION FORM FOR ACCREDITATION

- Application Form

Name of Developer	Company Name (if applicable)
Head Office Address	
Phone Number	
Fax Number	
Mobile Number	
Name of Contact Person	Engr. Geodetic Engineer
E-mail address to be used	<a href="#">email address</a>
Geodetic Engineer	Engr. Geodetic Engineer
License Number	PRC GE NO
Website	<a href="http://www.your.com">http://www.your.com</a>

I, the undersigned authorized representative of **COMPANY NAME** do hereby apply with the Land Registration Authority (LRA) for accreditation for its PHILARIS-eTD System.

I acknowledge that:

- I have read and understood the PHILARIS-eTD requirements and agree to abide by them.
- I certify that the email address [Email@Address.com](#) is an official email address of the company and such only shall be used for communication with LRA.
- I certify that, to the best of my knowledge, all information supplied is accurate and truthful.
- I certify that, to the best of my knowledge, all emailed documents accurately reflect the contents of the original documents.
- I certify that, to the best of my knowledge, any emailed documents are free from any virus, worms, Trojans and any other malware.

Signature

Date

Name: Engr. GE  
Position: Position / Geodetic Engineer  
NAME of Company

17 March 2018

# eTD - Accreditation

- Email account accreditation

Dear Sir/Madam,

Please be informed that your e-mail account has been **successfully accredited for PHILARIS eTD System. Please confirm receipt of this by replying to this message. Thank you.**

**SER JOHN C. PASTRANA**

**Chairman, Project Development and Coordination Committee  
Land Registration Authority**



# eTD -Transmission

- PHILARIS eTD Installer and Guidelines  
PTED Installer 2015.rar

Dear Sir/Madam,

**We respectfully transmit herewith the installer for Philaris Encoded Technical Description System Version 2.0 (“eTD”)**

**This is to inform you that effective July 1, 2015, only this version shall be acceptable for use Please see attached User Guide for your guidance.**

**Thank you.**

# eTD XML File

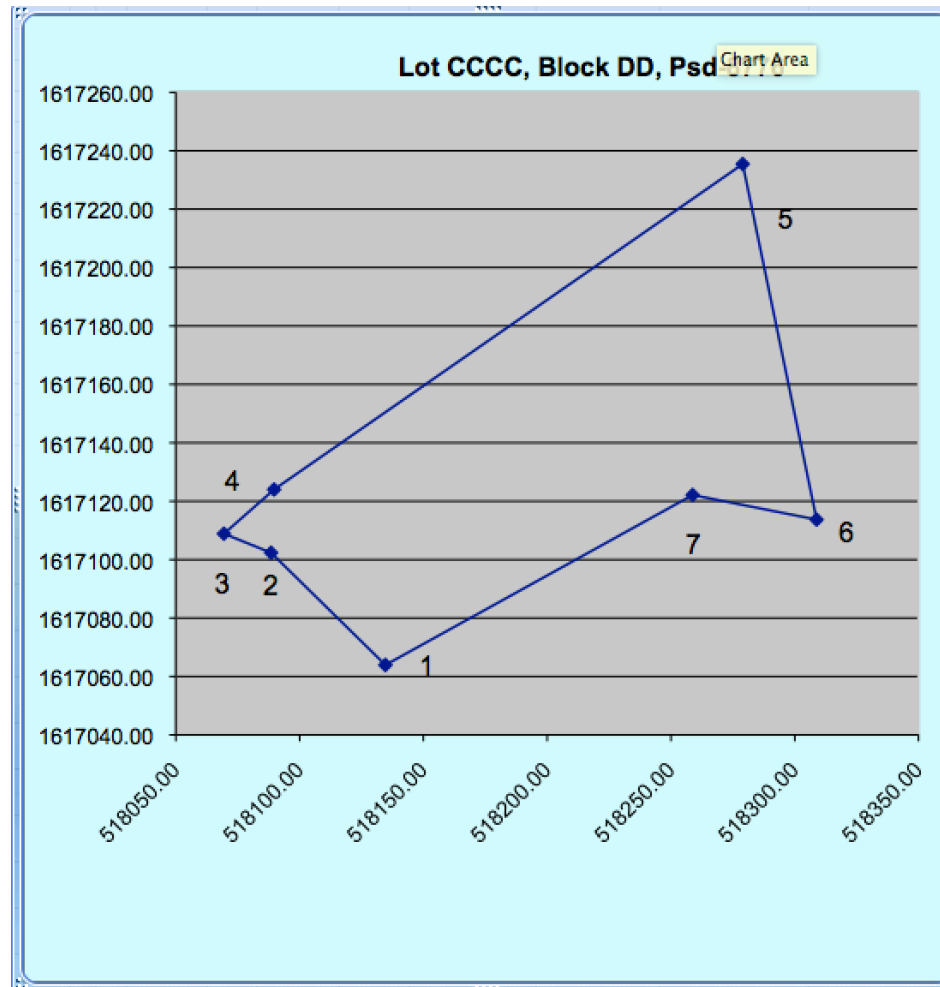
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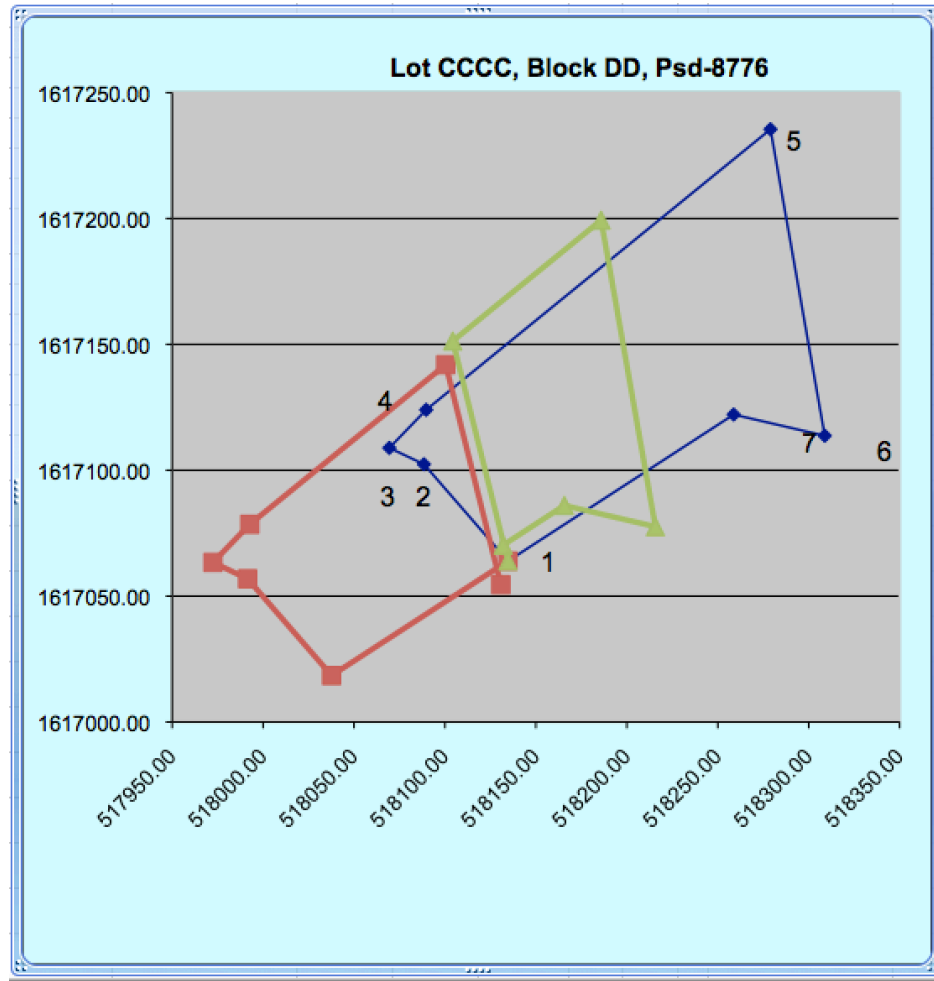
In computing, Extensible Markup Language (XML) is a markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable. - <https://en.wikipedia.org/wiki/XML>

# eTD – Spreadsheet Version

<b>LOT OWNER:</b>		CLIENT ETAL			<b>LOT NO.:</b>		CCCC				
<b>BARANGAY / BARRIO:</b>					<b>BLK NO.:</b>						
<b>MUNICIPALITY / CITY:</b>		ANGELES			<b>AREA (SQ.M.):</b>		18,290	19,892.00			
<b>PROVINCE / METRO:</b>		PAMPANGA			<b>OCT / TCT NO:</b>		2352345	Square Meters			
<b>REFERENCE:</b>		BLLM #1, CITY Cadastre			<b>DATE OF ISSUANCE:</b>		07-Jan-07				
<b>DATE OF ORIGINAL SURVEY:</b>		Dec 1945 - May 16,			<b>LOT PLAN NO:</b>		CSD-11111				
<b>DATE SURVEY EXECUTED:</b>		April 1, 1986 - June 7, 1989			<b>PORTION OF:</b>		Lot 45, SWO-3245324				
<b>DATE SURVEY APPROVED:</b>		July 26, 2000			<b>LRC/RECORD NO.:</b>						
<b>COORDINATE TYPE:</b>		Bearing & Distance			<b>BEARING:</b>		TRUE				
<b>SURVEY SYSTEM:</b>		PPCS-PTM			<b>DECLINATION:</b>		N00-00E				
					<b>Geodetic Engineer:</b>		Engr. YYYYYYYYYYYYYY				
<b>Notes:</b>		This is a SAMPLE eTD data encoding dataset									
<b>TECHNICAL DESCRIPTION</b>											
<b>LINE</b>	<b>BEARING</b>					<b>DISTANCE</b>	<b>LATITUDE</b>	<b>DEPARTURE</b>	<b>NORTHING</b>	<b>EASTING</b>	<b>REMARKS</b>
									1612224.98	521156.41	
BL - 1	N	31	59	W	5704.96	4,838.95	(3,021.76)	1617063.93	518134.65	P.S. C.C.M.	
1 - 2	N	50	14	W	60.08	38.43	(46.18)	1617102.36	518088.47	P.S. C.C.M.	
2 - 3	N	71	9	W	20.12	6.50	(19.04)	1617108.86	518069.43	P.S. C.C.M.	
3 - 4	N	53	14	E	25.30	15.14	20.26	1617124.00	518089.69	P.S. C.C.M.	
4 - 5	N	59	31	E	219.66	111.43	189.29	1617235.43	518278.98	P.S. C.C.M.	
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7 - 1	S	64	52	W	137.11	(58.23)	(124.12)	1617063.90	518134.64	P.S. C.C.M.	
						(0.030)	(0.010)				
<b>AREA :</b>		18289.71	<b>SQ.M.</b>		<b>RELATIVE ERROR OF PRECISION:</b>		1:	0.03			

# eTD – Spreadsheet Version





Dakal Pung Selamat!

Mayap a Aldo keka yu ngan!

Any Comments / Suggestions:

[dexter@grageda.com](mailto:dexter@grageda.com)