

Lab 1 Introduction to ENVI Answer Sheet**Name:**

Upload the following file to the instructor:

(16) Your Name_Enhanced_NAIP_Color pdf" pdf

Question 1: A. What is the map projection and datum for these 3 images?

B. How big is each image in KB, and the number of pixels in the columns and rows?

	KB	columns	rows
60 cm:			
5 m:			
10 m:			

Question 2: What is the format is the exported metadata? Why is this a useful format?

Question 3: What is the range of digital numbers (DNs) for the 60 cm image?

Question 4: Can you identify oil storage tanks on the 10 m image? Why?

Question 5: Can you identify roads on the 5 m image? What is their characteristic?

Question 6: A. 3-bit images have how many levels of gray?

B. 5-bit images have how many levels of gray”?

D. Do you see much difference between the 5-bit and 8-bit images? Why?

Question 7: A. What are your two measurements of the same tank in the two views?

B. Why the difference?

Question 8: How many bits is this data? How many levels of gray?

Question 9: Between approximately what low and high DN (brightness) values (numbers along the horizontal axis) are most of the pixels in this dataset?

Question 10: Why did moving 1% of the dark and bright pixels to 0 and 255, respectively, improve the range of colors displayed in the color composite?

Question 11: A. How large is this tif file in MB?

B. How large was the original NAIP_Color_321...tif" image?

C. Is your enhanced image better looking than the original?

Question 12: A. What happens to the Data Value (brightness) of Band 3 (red) and Band 4 (near IR) when you measure reflectance on irrigated grass at the golf course?

B. What happens to Band 4 when you measure the reflectance over water?

C. What are the two brightest bands when you measure reflectance over dry grass outside of the golf course?

Question 13: A. What happens to the Near IR reflectance (brightness or Data Value) value (red line) in water?

B. What happens to Near IR brightness in the golf course fairways?

C. Reflected green light is brighter than reflected red light over the irrigated grass on the fairways? Why do you already know this fact?

D. Do you have any idea why green light is reflected more strongly from healthy vegetation compared with red light?